Mortgage Finance

Mortgage Repurchases Part II: Private Label RMBS Investors Take Aim - Quantifying the Risks

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Summary

During the course of mortgage loan sales, selling lenders make certain representations and warranties to buyers such as the GSEs and bond investors that hold the securitized loans. Breaches of these representations and warranties cause the selling lender to have to repurchase the loan or indemnify the buyer against future losses. As analyzed in our March 15, 2010 report *"GSE Mortgage Repurchase Risk Poses Future Headwinds: Quantifying the Losses*", we estimated the potential unrecognized liability related to GSE repurchase requests. **Due to increasing litigation activity by private label RMBS investors, we believe that liability may also lurk for originators/underwriters of the initial securitizations and could approach 5% to 15% of tangible book value.** As such, based upon information contained in pending lawsuits, we have analyzed securitization data in an attempt to frame the potential liability that could exist. See the table below for a summary of estimated losses.

Key Points

- **FHLB lawsuits.** Since late 2009, several FHLBs have filed suit against multiple underwriters of Alt-A and subprime MBS deals citing inaccurate claims in the initial prospectus such as the percentage of high LTV loans, amount of investor properties, or number of underwriting exceptions. Utilizing sales information from foreclosed properties within the deal, the suits have compiled convincing data to show that the loan underwriting was materially worse than stated in the initial prospectus. Combined, the lawsuits (FHLBs of Pittsburgh, Seattle, San Francisco) are requesting rescission on about $25.6B in MBS purchases.
- **Investor syndicate with substantial clout gearing to pursue loan buybacks.** An investor group representing $500B in MBS securities has sent letters to Trustees of mortgage backed securitizations requesting that they enforce servicing breaches related to improperly originated loans. According to a July 21 Reuters article, the group has topped the required 25% ownership threshold needed to enforce Trustees to compel the servicers to hand over documentation (i.e. loan files), or be removed from the deal.
- **FHFA subpoenas.** On July 12, the Federal Housing Finance Agency (FHFA), issued 64 subpoenas seeking documents for MBS securities that Freddie and Fannie had invested in. Previously, the GSE's had been requesting documentation (i.e. loan files) to determine potential reps and warranty breaches; however, due to a lack of success, the FHFA was forced to use their subpoena power to compel the documentation.
- **Potential liability.** With the majority of the subprime/Alt-A originators out of business, most of the litigation is targeted at the underwriters of the initial securitizations. The suits generally claim, among other items, that the underwriters of the securitizations misrepresented the profile of loan standards within the initial prospectus.

Total Alt-A & Subprime RMBS Repurchase Request Loss Estimates

			Worst Case			Base Case			Best Case		
Company	**Ticker**	**Rating**	**Loss ($M)**	**Per Share***	**% of TBV**	**Loss ($M)**	**Per Share***	**% of TBV**	**Loss ($M)**	**Per Share***	**% of TBV**
Bank of America	BAC	NR	44,977	$2.69	22%	35,204	$2.11	17%	16,728	$1.00	8%
JP Morgan	JPM	NR	32,922	$4.93	19%	23,941	$3.59	13%	9,006	$1.35	5%
Deutsche Bank	DB	NR	20,892	$18.65	31%	14,070	$12.56	21%	4,463	$3.98	7%
Goldman Sachs	GS	NR	15,103	$16.77	15%	11,194	$12.43	11%	4,197	$4.66	4%
RBS Greenwich	RBS	NR	15,282	$0.16	19%	9,417	$0.10	12%	1,919	$0.02	2%
Credit Suisse	CS	NR	12,151	$6.15	30%	8,898	$4.50	22%	3,743	$1.89	9%
UBS	UBS.N	NR	12,262	$1.94	22%	8,350	$1.32	15%	2,830	$0.45	5%
Morgan Stanley	MS	NR	8,312	$3.56	15%	7,855	$3.37	14%	4,498	$1.93	8%
Citigroup	CS	NR	9,964	$0.21	5%	7,819	$0.16	4%	3,729	$0.08	2%
Barclays	BCS	NR	3,789	$0.19	4%	3,583	$0.18	3%	2,068	$0.10	2%
HSBC	HBC	NR	3,555	$0.12	2%	3,515	$0.12	2%	2,071	$0.07	1%
Total			179,210			133,846			55,253		

* after-tax (assume 40%)

Source: Compass Point Research & Trading LLC, Bloomberg, Inside MBS & ABS, Asset Backed Alert

Litigation Background: a Brief History

Since September 2008, there have been a number of lawsuits aimed at originators of subprime and Alt-A mortgages by either investors in private label (non-government guaranteed) RMBS securities, or the companies that insured them. In 2008 and 2009, bond insurers MBIA, Syncora, and FGIC all filed separate lawsuits against Countrywide (later amended to include Bank of America). Generally, these lawsuits claim that a significant portion of the loans underlying the securitizations that they guaranteed failed to comply with the underwriting guidelines or other reps and warranties.

In December 2008, Greenwich Financial, on behalf of a bondholder group, filed suit against Countrywide charging that they violated securitization agreements in modifying loans as part of their $8B settlement with Attorney Generals from multiple states.

Since late 2009/early 2010, lawsuits have been filed on the behalf of the Federal Home Loan Banks of Pittsburgh, Seattle and San Francisco. Similar to some of the mortgage insurer lawsuits, the lawsuits all claim that, among other things, a significant portion of the loans underlying the securitizations did not comply with the standards that were cited within the securitization prospectus. However, unlike the lawsuits by the mortgage insurers which are directed at the originator, the FHLB suits are against the underwriters of the securitizations. Accordingly, the suits believe the underwriters should be held liable since they misrepresented the information contained in the prospectus. They are seeking rescission on approximately $25.6 billion in RMBS purchases.

In July 2010, an investor syndicate purportedly representing $500B in MBS sent letters to numerous trustees of mortgage backed securitizations requesting that they enforce servicing breaches related to improperly originated loans. The group was formed in order to assemble enough representation to exceed the required 25% or 50% thresholds needed to compel the trustee to take action against the servicer. For reference, the trustee technically manages the securitization trust, and has the duty to ensure the servicer complies with all requirements in the securitization documents. Statements from the syndicate's attorneys have stated that they have 25% voting rights for over 2,300 deals, 50% in over 900 deals, and 66% in more than 450 deals. The group is represented by Talcott Franklin, a Dallas-based firm that was founded by an attorney who previously worked on a bondholder lobbying effort that was related to the Greenwich Financial litigation. The firm appears to have been established specifically for taking on this effort.

Date		Action	Amount
Sep-08	a	**MBIA sues Countrywide and BAC**	**$1.4B**
		Status: In April 2010, the Judge denied motion to dismiss (some counts). All parties have appealed the Judge's ruling, and such appeals are pending. Discovery has commenced.	
Dec-08	b	**Greenwich Financial sues Countrywide**	**Decl. Jdg.**
		Status: Awaiting ruling from NY State Supreme regarding Countrywide's motion to dismiss	
Jan-09	c	**Syncora sues Countrywide and BAC**	**$0.4B**
		Status: In April 2010, the Judge granted Defendant's motion to dismiss (some counts). Appeals are pending. Judge has ordered Countrywide to produce all loan files regarding 3 securitizations. Defendants' have filed counterclaims against Syncora for breach of contract. Syncora has agreed to stay proceedings against BAC. Claims against Countrywide continue.	
Sep-09	d	**FHLB Pittsburgh lawsuits - multiple defendants**	**$2.6B**
		Status: After being removed from state court to federal court, the cases were remanded back to Court of Common Pleas in Dec. 2009. Defendants in each lawsuit have filed motions to dismiss with the Court, and a hearing on the motions is scheduled for August 25, 2010.	
Dec-09	e	**FGIC sues Countrywide (now BAC)**	**$1B**
		Status: Judge granted Countrywide's motion to dismiss only as to the claims of negligent misrepresentation and breach of implied covenant of good faith and fair dealing. The Judge denied the motion to dismiss as to the claims of fraud. Both parties have filed appeals, which are pending.	
Dec-09	f	**FHLB Seattle lawsuits - multiple defendants**	**$4B**
		Status: Cases moved to Federal court. On July 29, 2010, Plantiffs argued motion to remand all cases to State court. Awaiting decision.	
Mar-10	g	**FHLB San Francisco lawsuits - mutiple defendants**	**$19B**
		Status: Cases filed in state court and removed to federal court by defendants. FHLB has filed motion to remand to state court. Motion hearing set for 9/17/10.	
Jul-10	h	**FHFA issues 64 subpoenas for loan files**	**N/A**
		Status: unknown, private	
Jul-10	i	**Investor group announces intentions to file suit**	**$500B**
		Status: nothing publicly filed yet	
Aug-10	j	**NY Federal Reserve engages in actions to enforce repurchases on faulty mortgages acquired through Bear Stearns and AIG**	**$70B**
		Status: unknown, private	

Sources

a. http://www.mbia.com/investor/legal_proceedings.html
b. Greenwich Financial Services, et al. v. Countrywide Finacnial Corp., et al.; SCROLL
c. Syncora Guarantee Inc. v. Countrywide Home Loans, Inc., et al.; SCROLL
d. FHLB of Pittsburgh's Form 10-Q for the Quarter Ended June 30, 2010; PACER
e. Financial Guaranty Insurance Company v. Countrywide Home Loans, Inc.; SCROLL
f. FHLB of Seattle 's Form 10-Q for the Quarter Ended June 30, 2010; PACER
g. FHLB of San Francisco 's Form 10-Q for the Quarter Ended June 30, 2010; PACER
h. July 12, 2010 Federal Housing Finance Agency news release
i. July 21, 2010 Reuters article "Mortgage bond holders get legal esge: buybacks seen"
j. Aug 4, 2010 Bloomerg article "N.Y. Fed May Require Banks to Buy Back faulty Mortgages, Assets"

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Also in July 2010, the FHFA, acting on behalf of Fannie and Freddie, issued 64 subpoenas seeking documents related to private-label mortgage backed securities in which they invested. The FHFA intends to utilize the information to determine whether the issuers (underwriters) and others may be liable for certain losses suffered. The ultimate goal is "to determine whether misrepresentations, breaches of warranties, or other acts of omissions occurred that would require them to repurchase loans underlying the securitizations." (July 12, 2010 Federal Housing Finance Agency news release)

Most recently, the New York Federal Reserve stated in August that they are engaged in actions to enforce repurchases on faulty mortgages acquired through Bear Stearns and AIG. (August 4, 2010 Bloomberg article)

Litigation Background: The Real Issue—Access to the Loan Files

All the lawsuits generally make similar claims—that a significant portion of the underlying loans failed to comply with the underwriting guidelines or other reps and warranties and thus misrepresentations and material omissions were made in connection with the sale of private label RMBS. As background, during the securitization of loans, the underwriter (or originator, in the case of the mortgage insurer) makes certain representations and warranties that the underlying loans conform with the standards set forth in the securitization prospectus. Some of the most common misrepresentations cited in the lawsuits that have been filed are:

- Stated loan-to-value ratios were lower than actual LTVs
- Failure to disclose additional liens on properties
- Property values were based on overstated valuations
- Overstating the number of mortgages on primary residences
- Originators of mortgage loans securing collateral pools departed from underwriting standards

In order to have conclusive proof that a significant portion of the underlying loans did not conform to the initial underwriting guidelines, the best source of information is loan file documentation. This point is made clear via statements in the FHFA subpoenas; "… the Conservator is seeking the contents of loan files, which include documents used in the underwriting process, such as loan applications and property appraisals." (July 12, 2010 FHFS news release) While the GSEs, via the FHFA, have the power to subpoena the servicers of the securitization to turn over the documentation, other RMBS investors, such as the FHLB, do not have direct access to the files and must litigate in an attempt to gain access to the loan files. Based on the information provided, there appear to be two routes currently implemented by investors:

- ***File suit against the securitization underwriter.*** Utilizing statistical analyses of trust performance, the FHLB suits have attempted to prove that the only way for the underlying loan performance to have performed as poorly as they did was if the underwriting was materially different than stated. If a judge does not dismiss the case, the plaintiffs are likely to gain access to the loan files via the discovery phase of the litigation (there has been no decision in the FHLB cases yet). To date, among the various lawsuits listed above, only in Syncora v. Countrywide/BAC have the defendants been ordered to produce loan files.

  or
- ***Garner the required 25% or 50% voting rights*** from securitization investors in order to compel the trustee to force the servicer to provide the required documentation (or be removed as acting trustee). This is the route the $500B investor group is initially taking. Thus, the group conceivably should have a greater chance of accessing loan files as the deciding factor may not hinge on a judge's decision.

As previously noted, the FHLB suits are requesting rescission of about $25.6B in RMBS purchases. However, we believe these suits, the investor syndicate, the GSE's and the Fed, ultimately are looking to have the underwriter, or the originator (if they are not bankrupt), repurchase only the underlying loans that did not abide by the underwriting standards stated in the prospectus.

Litigation Background: Do the Lawsuits Stand a Chance?

At first glance, many of the lawsuits sound like a Hail Mary by investors that have lost money on soured RMBS purchases. Our skepticism increases substantially when you consider that the claims of "faulty" mortgages are being made by entities such as the GSEs, FHLBs or mortgage insurers that have deep access to mortgage data and are deemed experts. However, a closer look at the FHLB lawsuits provide fairly convincing evidence that the loans were significantly worse than stated and the cases could have merit. Recall, as stated above, one of the primary goals of the lawsuit is to gain access to the loan files, as they will likely provide more convincing proof of their claims. Thus, the initial lawsuit only needs to provide enough evidence to convince the judge to deny motions to dismiss and enter the discovery phase which will potentially provide the plaintiffs access to the loan files.

Accordingly, below are two examples that were cited in the San Francisco FHLB's lawsuit of underwriting misrepresentations allegedly made in connection with the sale of Adjustable Rate Mortgage-Backed Pass-Through Certificates, Series 2007-1.

"Untrue or misleading statements about the LTVs of the mortgage loans." Utilizing an Automated Valuation Model (AVM), the FHLB estimated the actual average loan-to-values for underlying mortgages and compared them to statements made in the prospectus. Their analysis of 2,578 loans (58% of the entire pool), found that 414 loans, or 16%, had LTVs in excess of 100%, versus the statement in the prospectus that zero loans had LTVs in excess of 100%. Below is the results of their analysis taken from the lawsuit:

Item 62. Details of the results of the AVM analysis:

Number of loans	4,345
Number of properties on which there was enough information for the model to determine a true market value	2,578
Number of loans on which the stated value was 105% or more of the true market value as reported by the model	1,741
Aggregate amount by which the stated value of those properties exceeded their true market values as reported by the model	$159,299,961
Number of loans on which the stated value was 95% or less of the trust market value as reported by the model	289
Aggregate amount by which the true market values of those properties exceed their stated values	$18,366,289
Number of loans with LTVs over 100% as stated by Defendants	-
Number of loans with LTVs over 100% , as determined by the model	414
Weighted-average LTV, as staed by Defendants (group 3)	72.2%
Weighted-average LTV, as determined by the model (group 3)	86.6%

Source: Schedule 1 to First Amended Complaint, FHLB San Francisco v. Credit Suisse Securities (USA) LLC, et al. (emphasis added)

"Untrue or misleading statements about owner-occupancy of the properties that secured the mortgage loans" Based on their analysis, the FHLB estimated that among the 4,345 loans in this securitization, misstatements were made regarding 521 loans. Below is the info included in the lawsuit:

Items 96. Details of properties that were stated to be owner-occupied, but were not:

(a) Number of loans on which the owner of the property instructed tax authorities to send the property tax billed to him or her at a different address: 243

(b) Number of loans on which the owner of the property could have, but did not, designate the property as his or her homestead: 325

(c) Number of loans on which the owner of the property owned three or more properties: 30

(d) Eliminating duplicates, number of loans about which one or more of statements (a) through (c) is true: 521

Source: Schedule 1 to First Amended Complaint, FHLB San Francisco v. Credit Suisse Securities (USA) LLC, et al.

<u>In summary, the lawsuit claims that the defendants made untrue or misleading statements on 50.6% of the loans securitized in Adjustable Rate Mortgage-Backed Pass-Through Certificates, Series 2007-1 (p. 3, First Amended Complaint, FHLB San Francisco v. Credit Suisse Securities (USA) LLC, et al.)</u> And, that is just one of the 116 securitizations that the San Francisco FHLB alleges were misrepresented. Where do the FHLB lawsuits stand? None of them have entered discovery. The Pittsburgh cases were moved from state court to federal court, then back to state court and are awaiting a ruling regarding the defendants' motions to dismiss. The Seattle and San Francisco suits have been moved to federal court, but the FHLB has pending motions to remand those proceedings to state court. While the FHLB lawsuits are in limbo, **the lawsuit filed by MBIA has had more progress that could have negative implications for the defendants of the other suits. In April 2010, Judge Bransten partially denied Bank of America's motion to dismiss, and held that BAC is the successor-in-interest to Countrywide and thus vicariously liable for the conduct of**

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Countrywide if Countrywide is ultimately found liable (p. 15, April 29, 2010 Order of Judge Bransten, MBIA Insurance Corp. v. Coutnrywide Home Loans, Inc., et al.). **The case was ordered to move forward on the fraud and breach of implied covenant of good faith and fair dealing causes of action**. Since the Judge's decision in April, both Bank of America and the FHLB have appealed the ruling.

The same Judge is also sitting for the Syncora and FGIC lawsuits which are similar to the MBIA case. Importantly, in Syncora's case against Countrywide, in May of this year Judge Bransten ordered Countrywide to produce to Syncora the loan origination files for all of the loans in three separate securitizations originated by Countrywide and insured by Syncora (May 7, 2010 Order of Judge Bransten, Syncora Guarantee Inc. v. Countrywide Home Loans, Inc., et al.). This ruling may set a precedent for the MBIA and FGIC lawsuits should Countrywide and BAC resist producing the loan origination files in those cases.

While these lawsuits could be extremely slow to progress, we believe the FHFA subpoenas, Fed requests, and the actions being taken on behalf of the investor syndicate may proceed at a faster pace, given they are likely to gain access to the coveted loan files much sooner. With access to loan files potentially a matter of when, not if, the next question we consider is whether access to loan files will really be the smoking gun many expect. To gain some perspective on how pervasive the problem of defective mortgages was, we refer investors to the April 7, 2010 testimony of Richard Bowen, III, before the Financial Crisis Inquiry Commission. Mr. Bowen was the Business Chief Underwriter for Correspondent Lending in the Consumer Lending Group at Citigroup in charge of over $90B in residential mortgage production. Below are excerpts of his testimony:

"In mid-2006, I discovered that over 60% of these mortgages purchased and sold were defective. Because Citi had given reps and warrants to the investors that the mortgages were not defective, the investors could force Citi to repurchase many billions of dollars of these defective assets. This situation represented a large potential risk to the shareholders of Citigroup. I started issuing warnings in June of 2006 and attempted to get management to address these critical risk issues. These warnings continued through 2007 and went to all levels of the Consumer Lending Group. We continued to purchase and sell to investors even larger volumes of mortgages through 2007. And defective mortgages increased during 2007 to over 80% of production."
Source: http://subprimeshakeout.blogspot.com/2010/06/sec-demands-more-disclosure-from-jp.html

We defer investors to legal experts to opine on the potential outcomes of the outstanding lawsuits; however, given the potential evidence that the loan files could uncover, it would not be surprising to us to see settlements develop once data from the loan files access has been attained.

Who is Exposed to Alt-A Underwriting Risk?

With the majority of the top Alt-A and subprime mortgage originators out of business, the litigation has largely been centered on the underwriters of the securitizations. Should investor suits ultimately be successful in recovering damages from the underwriters, we would expect the underwriters to turn to the originators of the loans (so long as they are not affiliated with the underwriter or bankrupt) and attempt to recover those damages. Since this process is likely to take some time and we have quantifiable data points with regard to underwriter exposure, we have focused this report only on framing the potential liability of Alt-A and subprime RMBS underwriters.

We believe that there is a material risk related to the past underwriting of Alt-A loans in the banking sector due to representation and warranties underwriters made to the buyers of Alt-A RMBS. Based on data compiled from Inside MBS & ABS, our analysis of the FHLBs suits, and actual performance data of the '05 to '07 Alt-A RMBS vintages, we estimate that the total liability for rescission requests on Alt-A RMBS to be $67.9 billion. Our worst and best case estimates for industry wide losses is $99.1 billion and $13.4 billion, respectively.

JP Morgan (JPM—NR) tops the list with $13.1 billion of estimated losses largely due to the company's acquisition of Bear Stearns, who topped the underwriting league tables with $132.9 billion of Alt-A RMBS underwritten during that time (according to Inside MBS & ABS). Deutsche Bank sits at the number two spot with $10.3 billion of estimated losses and Bank of America comes in third with $10.2 billion of estimated losses largely due to their acquisition of Countrywide, which underwrote $85.4 billion of Alt-A RMBS, or 86% of Bank of America's total exposure, during the time period (according to Inside MBS & ABS). See the following table for complete details on company specific exposure.

Alt-A RMBS Repurchase Request Loss Estimates

			Worst Case			Base Case			Best Case		
Company	Ticker	Rating	Loss ($M)	Per Share*	% of TBV	Loss ($M)	Per Share*	% of TBV	Loss ($M)	Per Share*	% of TBV
JP Morgan	JPM	NR	21,080	$3.16	12%	13,110	$1.96	7%	2,718	$0.41	2%
Deutsche Bank	DB	NR	16,763	$14.97	25%	10,269	$9.17	15%	2,274	$2.03	3%
Bank of America	BAC	NR	16,386	$0.98	8%	10,187	$0.61	5%	2,188	$0.13	1%
RBS Greenwich	RBS	NR	15,282	$0.16	19%	9,417	$0.10	12%	1,919	$0.02	2%
Goldman Sachs	GS	NR	9,625	$10.69	9%	6,363	$7.06	6%	1,346	$1.49	1%
UBS	UBS.N	NR	8,989	$1.42	16%	5,472	$0.87	10%	1,148	$0.18	2%
Credit Suisse	CS	NR	6,801	$3.44	17%	4,376	$2.21	11%	1,095	$0.55	3%
Citigroup	C	NR	4,164	$0.09	2%	2,527	$0.05	1%	683	$0.01	0%
Total			99,090			67,920			13,371		

* after-tax (assume 40%)

Source: Compass Point Research & Trading LLC, Bloomberg, Inside MBS & ABS

Methodology for Quantifying Risk

Using data from Inside Mortgage Finance, we start with the league tables recording the top lead underwriters of Alt-A RMBS from 2005 through 2007. Since the majority of the rescission requests in the FHLBs suits were focused on loans underwritten in the years 2005 through 2007, we confined our initial data set to Alt-A RMBS underwritten and issued during those years. Ultimate losses will be dependent on three main factors; rescission percentage, default rate, and severity of loss on repurchased loans. Since these factors will vary based on vintage (or year underwritten), we use average statistics by vintage to estimate the liability. While these factors may also vary by issuer, we have not been able to identify any meaningful public statistic that correlates to the FHLBs suits rescission request percentage. Therefore, while we acknowledge there may be slight rescission rate differences between issuers, we believe using a vintage average is a suitable data point for framing the analysis.

Worst Case Alt-A Loss Estimate

In the worst case scenario, we assume that the rescission requests identified in the FHLB suits are indicative of the total potential pool of loans that could be rescinded industry-wide. While we cannot opine on whether or not the suit's rescission percentage will ultimately be proven accurate, we believe that the data set forth in each particular suit is substantial enough to establish a worst case scenario. We then apply a success ratio, assuming that not all rescission requests will be honored or result in a loss. Finally, we apply a loss severity estimate to produce a net loss for loans repurchased. The mathematical equation used to estimate worst case losses is set forth below:

(weighted average rescission request by year) x (success ratio) x (severity of loss) = loss estimate

Alt-A Worst Case Scenario Assumptions

	2007	2006	2005
FHLB Rescission Rate	54.5%	49.1%	43.2%
Success Ratio	75.0%	60.0%	50.0%
Severity of Loss	60.0%	55.0%	50.0%

Source: Compass Point Research & Trading LLC, Bloomberg, Inside MBS & ABS

Worst Case Alt-A Net Repurchase Loss Estimates

	'05 - '07	% of orig.	2007	2006	2005
Bear Stearns	21,080	15.9%	6,686	8,965	5,429
Lehman Brothers	20,264	16.6%	8,143	7,545	4,576
Deutsche Bank	16,763	16.9%	7,268	5,941	3,553
Countrywide Securities	13,300	15.6%	3,798	5,852	3,650
Bank of America	3,085	22.1%	2,407	678	0
Total Bank of America	16,386	16.5%	6,205	6,530	3,650
RBS Greenwich Capital	15,282	15.5%	4,415	6,485	4,382
Goldman Sachs	9,625	16.9%	3,361	4,821	1,444
UBS	8,989	15.8%	3,052	3,467	2,469
Credit Suisse	6,801	21.1%	4,629	2,172	0
Citigroup	4,164	22.5%	3,442	722	0
Total	119,354		47,202	46,648	25,504

Source: Compass Point Research & Trading LLC, Bloomberg, Inside MBS & ABS

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Base Case Alt-A Loss Estimate

In the base case scenario, we assume that rescission requests are limited to all seriously delinquent and defaulted loans that have occurred **up to and including July 2010**. We then apply a success ratio, assuming that not all rescission requests will be honored or result in a loss. Finally, we apply a loss severity estimate to produce a net loss for loans repurchased. The mathematical equation used to estimate worst case losses is set forth below:

(total 60+ day delinquent loan balance & cumulative gross defaults through July 2010) x (success ratio) x (severity) = loss estimate

Alt-A Base Case Estimate Assumptions

	2007	2006	2005
Balance	71.6%	52.1%	38.0%
Net Losses	3.8%	5.2%	1.0%
Severity	60.0%	55.0%	45.0%
Gross Losses	6.3%	9.4%	2.2%
REO	2.0%	2.4%	1.2%
Foreclosure	9.8%	13.6%	6.7%
Bankrupt	2.2%	3.0%	1.8%
Delinquent Loans	17.3%	20.6%	11.2%
Gross SDQ	37.7%	48.9%	23.1%
Success Ratio	80.0%	80.0%	80.0%

Source: Compass Point Research & Trading LLC, Bloomberg, Inside MBS & ABS

Base Case Alt-A Net Repurchase Loss Estimates

	'05 - '07	% of orig.	2007	2006	2005
Bear Stearns	13,110	9.9%	3,765	7,303	2,042
Lehman Brothers	12,453	10.2%	4,586	6,146	1,721
Deutsche Bank	10,269	10.4%	4,093	4,840	1,336
Countrywide Securities	8,279	9.7%	2,139	4,767	1,373
Bank of America	1,908	13.6%	1,356	552	0
Total Bank of America	10,187	10.2%	3,495	5,320	1,373
RBS Greenwich Capital	9,417	9.5%	2,486	5,283	1,648
Goldman Sachs	6,363	11.2%	1,893	3,927	543
UBS	5,472	9.6%	1,719	2,825	928
Credit Suisse	4,376	13.6%	2,607	1,769	0
Citigroup	2,527	13.7%	1,938	588	0
Total	74,174		26,583	38,001	9,590

Source: Compass Point Research & Trading LLC, Bloomberg, Inside MBS & ABS

As a point of reference, First Horizon (FHN—NR) noted in the company's latest 10-Q filing that they have witnessed average rescission rates of between 40% and 50% of the repurchase and make-whole requests (similar to our "success ratio") and observed loss severities (measured as a percentage of the unpaid principal balance) ranging between 50% and 55% of the repurchased loans. This would result in an approximate loss severity of between 20% and 28%. The majority of FHN's loan repurchase requests made to date have occurred on prime loans, which should bear a lower ultimate severity than Alt-A loans. We believe this benchmark compares favorably to our base case scenario for Alt-A loan repurchase risk.

Best Case Alt-A Loss Estimate

In the best case scenario, we assume that rescission requests are limited to all seriously delinquent and defaulted loans that occurred **up to eighteen months after issuance**. We then apply a success ratio, assuming that not all rescission requests will be honored or result in a loss. Finally, we apply a loss severity estimate to produce a net loss for loans repurchased. The mathematical equation used to estimate worst case losses is set forth below:

(total 60+ day delinquent loan balance & cumulative gross defaults @ 18 months after issuance) x (success ratio) x (severity) = loss estimate

Alt-A Best Case Estimate Assumptions

	2007	2006	2005
Balance	88.1%	79.4%	71.6%
Net Losses	0.3%	0.1%	0.0%
Severity	60.0%	55.0%	50.0%
Gross Losses	0.5%	0.2%	0.0%
REO	1.5%	1.4%	0.3%
Foreclosure	3.5%	2.7%	0.7%
Bankrupt	0.6%	0.5%	0.2%
Delinquent Loans	6.8%	4.3%	1.4%
Gross SDQ	6.9%	4.0%	0.9%
Success Ratio	60.0%	60.0%	60.0%

Source: Compass Point Research & Trading LLC, Bloomberg, Inside MBS & ABS

Best Case Alt-A Net Repurchase Loss Estimates

	'05 - '07	% of orig.	2007	2006	2005
Bear Stearns	2,718	2.0%	1,120	1,319	279
Lehman Brothers	2,709	2.2%	1,364	1,110	235
Deutsche Bank	2,274	2.3%	1,217	874	183
Countrywide Securities	1,685	2.0%	636	861	188
Bank of America	503	3.6%	403	100	0
Total Bank of America	2,188	2.2%	1,039	961	188
RBS Greenwich Capital	1,919	1.9%	739	954	225
Goldman Sachs	1,346	2.4%	563	709	74
UBS	1,148	2.0%	511	510	127
Credit Suisse	1,095	3.4%	775	319	0
Citigroup	683	3.7%	576	106	0
Total	16,080		7,905	6,863	1,312

Source: Compass Point Research & Trading LLC, Bloomberg, Inside MBS & ABS

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Who is Exposed to Subprime Underwriting Risk?

We believe that there is material risk related to the past underwriting of subprime loans in the banking sector due to the representation and warranties underwriters made to the buyers of subprime RMBS. While we have yet to see a lawsuit, we believe the consortium of investors represented by the law firm Talcott Franklin P.C. intends to pursue a strategy that ultimately results in the rescission of loans that they believe breach the underwriters representation and warranties. Should investors be successful in recovering damages from the underwriters, we would expect the underwriters to turn to the originators of the loans (so long as they are not affiliated with the underwriter or bankrupt) and attempt to recover those damages. Since this process is likely to take some time and we now have quantifiable data points with regard to underwriter exposure, we have focused this report only on framing the potential liability for underwriters and not originators.

Subprime Issuance by Year ($Mil.)

Rank*	Issuer	Total '05-'07	Mkt Share	2007	2006	2005	2004	2003	2002	2001	2000
1	Countrywide	85,993	15.8%	19,509	26,345	40,140	42,650	9,671	4,591	3,381	1,631
2	Lehman Brothers	49,597	9.1%	18,652	17,635	13,310	13,773	8,774	10,213	10,702	8,942
3	RBS Greenwich	47,721	8.8%	19,520	11,207	16,993	21,461	10,634	8,211	8,408	4,361
4	Merrill Lynch	45,667	8.4%	21,936	12,019	11,712	7,318	2,899	200	649	176
5	Morgan Stanley	37,572	6.9%	23,656	6,373	7,543	8,523	6,433	6,393	1,634	1,343
6	Bear Stearns	37,382	6.9%	13,360	11,169	12,854	13,095	10,783	9,336	6,748	10,097
7	Credit Suisse	31,436	5.8%	7,161	9,732	14,543	11,930	3,727	7,121	9,573	2,122
8	Goldman Sachs	31,274	5.8%	6,802	13,166	11,307	9,506	2,538	4,314	0	346
9	Citigroup	28,588	5.3%	14,026	5,888	8,674	4,368	12,077	0	0	0
10	Bank of America	24,487	4.5%	10,179	3,956	10,352	14,128	6,368	4,508	4,792	2,417
11	J.P. Morgan	22,833	4.2%	11,360	7,001	4,472	8,453	13,690	3,717	5,773	0
12	Deutsche Bank	20,066	3.7%	10,169	4,313	5,584	9,681	7,785	5,567	3,120	0
13	UBS	18,068	3.3%	5,366	5,830	6,873	5,050	3,580	3,038	0	237
14	Barclays	17,723	3.3%	9,578	4,738	3,406	1,717	0	0	0	0
15	HSBC	16,890	3.1%	6,708	9,678	504	0	0	0	0	0
16	WaMu Capital	11,284	2.1%	3,488	2,142	5,655	3,903	0	0	0	0
17	GMAC RFC	5,402	1.0%	987	2,335	2,080	497	242	0	0	0
18	Friedman Billings Ramsey	4,002	0.7%	0	324	3,678	660	0	0	0	0
19	Terwin Capital	3,375	0.6%	166	2,307	902	1,082	96	0	0	0
20	Wachovia	2,225	0.4%	1,062	648	515	0	0	1,651	451	0
21	Societe Generale	991	0.2%	177	814	0	0	0	0	0	0
22	RBC Capital	899	0.2%	386	513	0	0	0	246	0	0
23	BMO Capital	196	0.0%	106	90	0	0	0	0	0	0
24	SunTrust	185	0.0%	185	0	0	0	0	0	0	0
25	Banc One Capital	0	0.0%	0	0	0	0	892	100	0	0
	Total	543,855		204,540	158,222	181,093	177,795	100,190	69,205	55,229	31,673

Source: Compass Point Research & Trading LLC, Bloomberg, Asset Backed Alert

Based on data compiled from Asset Backed Alert, our analysis of the FHLBs suits, and actual performance data of the '05 to '07 subprime RMBS vintages, we estimate that the total liability for rescission requests on subprime RMBS to be $80.3 billion. Our worst and best case estimates for industry wide losses is $89.3 billion and $46.6 billion, respectively.

Bank of America (BAC—NR) tops the list with $25.0 billion of estimated losses largely due to their acquisition of Countrywide and Merrill Lynch, who underwrote $86.0 billion and $45.7 billion of subprime RMBS, respectively, during the time period. JP Morgan (JPM—NR) sits at the number two spot with estimated losses of $10.8 billion based on subprime underwriting exposure of $60.2 billion based in part on the company's acquisition of Bear Stearns, who underwrote $37.4 billion of subprime RMBS during that time. See the at the top of the following page for complete details on company specific loss exposure.

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Subprime RMBS Repurchase Request Loss Estimates

			Worst Case			Base Case			Best Case		
Company	Ticker	Rating	Loss ($M)	Per Share*	% of TBV	Loss ($M)	Per Share*	% of TBV	Loss ($M)	Per Share*	% of TBV
Bank of America	BAC	NR	28,591	$1.71	14%	25,017	$1.50	12%	14,541	$0.87	7%
JP Morgan	JPM	NR	11,842	$1.77	7%	10,831	$1.62	6%	6,288	$0.94	4%
RBS Greenwich	RBS	NR	9,189	$0.10	12%	8,205	$0.09	10%	4,744	$0.05	6%
Morgan Stanley	MS	NR	8,312	$3.56	15%	7,855	$3.37	14%	4,498	$1.93	8%
Citigroup	CS	NR	5,800	$0.12	3%	5,292	$0.11	3%	3,047	$0.06	2%
Goldman Sachs	GS	NR	5,478	$6.08	5%	4,831	$5.36	5%	2,851	$3.17	3%
Credit Suisse	CS	NR	5,350	$2.71	13%	4,522	$2.29	11%	2,648	$1.34	6%
Deutsche Bank	DB	NR	4,129	$3.69	6%	3,801	$3.39	6%	2,188	$1.95	3%
Barclays	BCS	NR	3,789	$0.19	4%	3,583	$0.18	3%	2,068	$0.10	2%
HSBC	HBC	NR	3,555	$0.12	2%	3,515	$0.12	2%	2,071	$0.07	1%
UBS	UBS.N	NR	3,273	$0.52	6%	2,878	$0.46	5%	1,681	$0.27	3%
Total			89,309			80,329			46,626		

* after-tax (assume 40%)

Source: Compass Point Research & Trading LLC, Bloomberg, Asset Backed Alert

Methodology for Quantifying Risk

Using data from Asset Backed Alert, we start with the league tables recording the top lead underwriters of subprime RMBS from 2005 through 2007. Since the majority of the rescission requests in the FHLB suits were focused on loans underwritten in the years 2005 through 2007, we confined our initial data set to subprime RMBS underwritten and issued during those years. Ultimate losses will be dependent on three main factors; rescission percentage, default rate, and severity of loss on repurchased loans. Since these factors will vary based on vintage (or year underwritten), we use average statistics by vintage to estimate the liability. While these factors may also vary by issuer, we have not been able to identify any meaningful public statistic that correlates to the FHLB suits rescission request percentage. Therefore, while we acknowledge there may be slight rescission rate differences between issuers, we believe using a vintage average is a suitable data point for framing the analysis.

Worst Case Subprime Loss Estimate

In the worst case scenario, we assume that the rescission requests identified in the FHLB suits are a good proxy for the total potential pool of loans that could be rescinded industry-wide. While we cannot opine on whether or not the suit's rescission percentage will ultimately be proven accurate, we believe that the data set forth in each particular suit is substantial enough to establish a worst case scenario. We then apply a success ratio, assuming that not all rescission requests will be honored or result in a loss. Finally, we apply a loss severity estimate to produce a net loss for loans repurchased. The mathematical equation used to estimate worst case losses is set forth below:

(weighted average rescission request by year) x (success ratio) x (severity of loss) = loss estimate

Subprime Worst Case Scenario Assumptions

	2007	2006	2005
FHLB Rescission Rate	54.5%	49.1%	43.2%
Success Ratio	80.0%	80.0%	80.0%
Severity of Loss	65.0%	55.0%	50.0%

Source: Compass Point Research & Trading LLC, Bloomberg, Asset Backed Alert

Worst Case Subprime Net Repurchase Loss Estimates

	'05 - '07	% of orig.	2007	2006	2005
Countrywide	14,609	17.0%	5,188	4,657	4,763
Merrill Lynch	9,348	20.5%	5,834	2,125	1,390
Bank of America	4,635	18.9%	2,707	699	1,228
Total Bank of America	28,591	18.3%	13,728	7,481	7,382
Bear Stearns	7,052	18.9%	3,553	1,974	1,525
J.P. Morgan	4,789	21.0%	3,021	1,238	531
Total J.P. Morgan	11,842	19.7%	6,574	3,212	2,056
RBS Greenwich	9,189	19.3%	5,191	1,981	2,017
Morgan Stanley	8,312	22.1%	6,291	1,127	895
Credit Suisse	5,350	17.0%	1,904	1,721	1,726
Goldman Sachs	5,478	17.5%	1,809	2,327	1,342
Citigroup	5,800	20.3%	3,730	1,041	1,029
Deutsche Bank	4,129	20.6%	2,704	763	663
UBS	3,273	18.1%	1,427	1,031	816
Barclays	3,789	21.4%	2,547	838	404
HSBC	3,555	21.0%	1,784	1,711	60
Total	89,309		47,689	23,232	18,388

Source: Compass Point Research & Trading LLC, Bloomberg, Asset Backed Alert

Base Case Subprime Loss Estimate

In the base case scenario, we assume that rescission requests are limited to all seriously delinquent and defaulted loans that have occurred **up to and including July 2010**. We then apply a success ratio, assuming that not all rescission requests will be honored or result in a loss. Finally, we apply a loss severity estimate to produce a net loss for loans repurchased. The mathematical equation used to estimate worst case losses is set forth below:

(total 60+ day delinquent loan balance & cumulative gross defaults through July 2010) x (success ratio) x (severity) = loss estimate

Subprime Base Case Estimate Assumptions

	2007	2006	2005
Balance	60.2%	29.2%	16.5%
Net Losses	19.0%	16.3%	5.6%
Severity	65.0%	60.0%	55.0%
Gross Losses	29.3%	27.1%	10.1%
REO	4.1%	4.4%	3.3%
Foreclosure	16.4%	15.9%	11.5%
Bankrupt	3.1%	3.6%	4.0%
Delinquent Loans	12.3%	9.3%	6.2%
Gross SDQ	65.2%	60.3%	35.0%
Success Ratio	80.0%	80.0%	80.0%

Source: Compass Point Research & Trading LLC, Bloomberg, Asset Backed Alert

Base Case Subprime Net Repurchase Loss Estimates

	'05 - '07	% of orig.	2007	2006	2005
Countrywide	12,321	14.3%	5,161	4,653	2,508
Merrill Lynch	8,657	19.0%	5,803	2,123	732
Bank of America	4,038	16.5%	2,693	699	647
Total Bank of America	25,017	16.0%	13,657	7,474	3,886
Bear Stearns	6,310	16.9%	3,534	1,973	803
J.P. Morgan	4,521	19.8%	3,005	1,236	279
Total J.P. Morgan	10,831	18.0%	6,539	3,209	1,082
RBS Greenwich	8,205	17.2%	5,164	1,979	1,062
Morgan Stanley	7,855	20.9%	6,258	1,126	471
Credit Suisse	4,522	14.4%	1,894	1,719	908
Goldman Sachs	4,831	15.4%	1,799	2,325	706
Citigroup	5,292	18.5%	3,710	1,040	542
Deutsche Bank	3,801	18.9%	2,690	762	349
UBS	2,878	15.9%	1,419	1,030	429
Barclays	3,583	20.2%	2,534	837	213
HSBC	3,515	20.8%	1,775	1,709	31
Total	80,329		47,440	23,210	9,680

Source: Compass Point Research & Trading LLC, Bloomberg, Asset Backed Alert

Best Case Subprime Loss Estimate

In the best case scenario, we assume that rescission requests are limited to all seriously delinquent and defaulted loans that occurred **up to eighteen months after issuance**. We then apply a success ratio, assuming that not all rescission requests will be honored or result in a loss. Finally, we apply a loss severity estimate to produce a net loss for loans repurchased. The mathematical equation used to estimate worst case losses is set forth below:

(total 60+ day delinquent loan balance & cumulative gross defaults @ 18 months after issuance) x (success ratio) x (severity) = loss estimate

Subprime Best Case Estimate Assumptions

	2007	2006	2005
Balance	82.1%	78.7%	55.5%
Net Losses	4.3%	2.0%	0.4%
Severity	60.0%	40.0%	40.0%
Gross Losses	7.2%	5.1%	1.1%
REO	6.0%	5.4%	2.1%
Foreclosure	12.4%	9.0%	4.1%
Bankrupt	1.8%	1.7%	1.4%
Delinquent Loans	2.3%	1.9%	0.3%
Gross SDQ	6.9%	4.0%	0.9%
Success Ratio	60.0%	60.0%	60.0%

Source: Compass Point Research & Trading LLC, Bloomberg, Asset Backed Alert

Best Case Subprime Net Repurchase Loss Estimates

	'05 - '07	% of orig.	2007	2006	2005
Countrywide	7,215	8.4%	2,916	2,859	1,440
Merrill Lynch	5,004	11.0%	3,279	1,304	420
Bank of America	2,322	9.5%	1,522	429	371
Total Bank of America	14,541	9.3%	7,717	4,592	2,231
Bear Stearns	3,670	9.8%	1,997	1,212	461
J.P. Morgan	2,618	11.5%	1,698	760	160
Total J.P. Morgan	6,288	10.4%	3,695	1,972	621
RBS Greenwich	4,744	9.9%	2,918	1,216	609
Morgan Stanley	4,498	12.0%	3,536	692	271
Credit Suisse	2,648	8.4%	1,070	1,056	522
Goldman Sachs	2,851	9.1%	1,017	1,429	405
Citigroup	3,047	10.7%	2,097	639	311
Deutsche Bank	2,188	10.9%	1,520	468	200
UBS	1,681	9.3%	802	633	246
Barclays	2,068	11.7%	1,432	514	122
HSBC	2,071	12.3%	1,003	1,050	18
Total	46,626		26,808	14,260	5,557

Source: Compass Point Research & Trading LLC, Bloomberg, Asset Backed Alert

What Reserves have been Recorded?

Based upon our review of quarterly filings, JPM appears to be the only underwriter that has potentially reserved for repurchases as it relates to private label litigation. In 1Q10, JPM recorded a $2.3B charge in litigation reserves for "mortgage-related" matters. When asked a question on their earnings call regarding the charge, management responded "to think about that as we have repurchase reserves that we've talked about related to the GSEs as an ongoing expense we've been reserving for. This (charge) relates to the broader question of all other ideas for claims against us from private investors". A review of the litigation section of JPM's 2009 10-K and their 1Q10 10-Q shows that the only change is the mention of the FHLB San Francisco lawsuit (the Seattle and Pittsburgh lawsuits were mentioned in the 10-K). Interestingly, the charge was also recorded in the quarter immediately following a request from the SEC for more information regarding their repurchase reserves. Two weeks following the release of their 4Q09 earnings, JPM received a letter on January 29, 2010 from the SEC requesting disclosures on how the company establishes repurchase reserves for various reps and warranties, including GSE's, monoline insurers and any private loan repurchase requests (http://www.sec.gov—JPM March 2, 2010 Correspondence).

Our review of quarterly filings found that BAC had a $3.9B reserve for all mortgage repurchase requests (on $11.1B in requests made), JPM had a $2.3B reserve for mortgage repurchases (which is separate from their $2.3B litigation reserve charge in 1Q10), and Citigroup had a $727MM reserve for mortgage repurchases. Importantly, BAC's 2Q10 quarterly filing noted that they have only received $33MM in private label MBS repurchase requests thus far. Below is a table of the applicable reserves.

Unpaid principal bal. - *in millions*	BAC	JPM	C
Unresolved mortgage repurchase requests	**11,100**	**2,880**	**4,478**
GSEs	5,600	1,400	4,166
Monolines	4,000	1,700	98
Other investors	1,400	na	214
Private label MBS investors	33	na	na
Reserve for repurchases	**3,900**	**2,332**	**727**
Litigation reserve (estimate)	na	2,300	na
Subtotal	**3,900**	**4,632**	**727**

Source: Company filings, Compass Point Research

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Important Disclosures

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