Docket #0159 Date Filed: 11/12/2013

MORRISON & FOERSTER LLP
1290 Avenue of the Americas
New York, New York 10104
Telephone: (212) 468-8000
Facsimile: (212) 468-7900
Gary S. Lee
Charles L. Kerr
Darryl P. Rains
J. Alexander Lawrence

Counsel for the Debtors and
Debtors in Possession

UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF NEW YORK

In re:	)	Case No. 12-12020 (MG)
RESIDENTIAL CAPITAL, LLC, et al.,	)	Chapter 11
Debtors.	)	Jointly Administered

DIRECT TESTIMONY OF LUCY ALLEN

12120201311120000000000112

I, Lucy Allen, under penalty of perjury, testify as follows:

1. I am a Senior Vice President of NERA Economic Consulting ("NERA") and a member of NERA's Securities and Finance Practice.

2. I have been asked by the Debtors to offer expert testimony on the proposed $235 million settlement of Private Securities Claims ("Private Securities Claims") and the proposed $100 million settlement of the *NJ Carpenters* class action litigation in connection with confirmation of the proposed Chapter 11 plan for Residential Capital, LLC, et al.

SUMMARY OF TESTIMONY

3. I found, based on commonly applied settlement metrics, that the proposed settlement amount of $235 million for the Private Securities Claims and the proposed settlement amount of $100 million for the *NJ Carpenters* case in this matter are consistent with and within the range of recent RMBS-related securities litigation settlements.

4. In particular, I found that the proposed Private Securities Claims settlement and the *NJ Carpenters* settlement were within the range of other recent settlements in RMBS cases based on settlements as a percentage of original principal balance and settlements as a percentage of losses:

> *Settlements as a Percentage of Original Principal Balance.* The $235 million Private Securities Claims settlement is 2.9% of the $8.00 billion original principal amount. The $100 million *NJ Carpenters* settlement is 0.3% of the $38.34 billion original principal amount. The range of settlements as a percentage of original principal balance in other recent RMBS-related securities litigation settlements is between 0.03% and 13.8%.
>
> *Settlements as a Percentage of the Maximum Cash Losses.* The $235 million Private Securities Claims settlement is 7.7% of the $3.05 billion maximum cash losses. The $100 million *NJ Carpenters* settlement is 0.5% of the $21.23 billion maximum cash losses. The range of settlements as a percentage of maximum cash losses in other recent RMBS-related securities litigation settlements is 0.05% and 48.6%.

Settlements as a Percentage of the Intermediate Cash Losses. The $235 million Private Securities Claims settlement is 9.1% of the $2.59 billion intermediate cash losses. The $100 million *NJ Carpenters* settlement is 0.7% of the $13.91 billion intermediate cash losses. The range of settlements as a percentage of intermediate cash losses in other recent RMBS-related securities litigation settlements is 0.1% and 65.0%.

Settlement as a Percentage of the Minimum Cash Losses. The $235 million Private Securities Claims settlement is 11.0% of the $2.14 billion minimum cash losses. The $100 million *NJ Carpenters* settlement is 1.5% of the $6.61 billion minimum cash losses. The range of settlements as a percentage of minimum cash losses in other recent RMBS-related securities litigation settlements is 0.2% and 119.0%.

5. I also compared the settlements to original principal balance and cash losses applying a logarithmic approach, an approach commonly used by academics and analysts analyzing securities settlements.[1] Using the logarithmic approach, I similarly found that the Private Securities Claims settlement and the *NJ Carpenters* settlement are consistent with and fall within the range of other recent RMBS-related securities litigation settlements.

QUALIFICATIONS AND EXPERIENCE

6. I am a Senior Vice President of NERA and a member of NERA's Securities and Finance Practice. NERA provides practical economic advice related to highly complex business and legal issues arising from competition, regulation, public policy, strategy, finance, and litigation. NERA was established in 1961 and now employs approximately 500 people in more than 20 offices worldwide. NERA's Securities and Finance Practice dates from the early 1970s and employs a research staff of more than 100 professionals holding degrees in economics, finance, and mathematics. The firm counts as its clients risk managers, principals needing valuation services, and parties in litigation.

[1] In particular, the analysis assumes that the natural logarithm of settlements is a function of the natural logarithm of losses or original balance. Throughout this testimony, "log" and "logarithm" refer to natural logarithm.

7. I have a B.A. from Stanford University, an M.B.A. with a concentration in Finance and Accounting from Yale University, and M.A. and M. Phil. degrees in Economics, also from Yale University. Prior to joining NERA, I was an Economist for both President George H. W. Bush's and President Bill Clinton's Council of Economic Advisers. In my 18 years at NERA, I have been engaged as an economic consultant or expert witness in a variety of projects involving securities and financial economics. In the course of this work, I have estimated damages and/or analyzed settlements for hundreds of securities litigation cases. I have frequently testified as an expert on damages and settlements in securities cases.

BACKGROUND AND ASSIGNMENT

8. The Private Securities Claims Settlement. I have been informed that the plan seeks to resolve Private Securities Claims asserted by investors in the Debtors' RMBS under federal and state securities laws and state common law for an aggregate payment of approximately $235 million.[2]

9. The New Jersey Carpenters Settlement. I have also been informed that the plan would settle a federal securities law class action filed against the Debtors and Ally Securities in *N.J. Carpenters Health Fund v. Residential Capital, LLC*, No. 08-CV-8781 (HB) (S.D.N.Y. filed Sept. 22, 2008) on behalf of a purported class of purchasers of fifty-nine different Debtor RMBS offerings from 2006 and 2007. I have been informed that the *NJ Carpenters* settlement provides for a cash payment of $100 million to the *NJ Carpenters* class.

10. Comparison with Recent RMBS Settlements. The debtors asked me to analyze whether these settlements under the plan were within the reasonable range of settlements for

[2] Based on my understanding of the plan, I treated the Private Securities Claims settlement as a single settlement of $235 million to resolve all of the claims asserted against the debtors and Ally by the private securities claimants. As discussed below, in some areas of my analysis, I have attempted to account for the fact that the Private Securities Claims settlement resolves claims asserted by distinct claimants by considering an average of the twenty-one distinct claims.

RMBS-related securities litigation. I did so by comparing these settlements with other recent RMBS-related litigation settlements. I compared the Private Securities Claims settlement and the *NJ Carpenters* settlement with twelve settlements of other recent RMBS cases based on metrics commonly used to analyze settlements. In particular, I examined settlement amounts relative to original principal amounts and cash losses. I compared the settlements applying a simple percentage as well as a logarithmic approach. Based on the analysis, for all metrics, I found that the Private Securities Claims settlement and the *NJ Carpenters* settlement were consistent with and fell within the range of other recent RMBS litigation settlements.

BASIS OF OPINION

11. I reached my opinion by (a) identifying other recent RMBS-related litigation settlements; (b) computing the original principal balance for the securities in each of the settlements (including the Private Securities Claims settlement and *NJ Carpenters* settlement); (c) calculating cash losses under maximum, minimum, and intermediate assumptions for the securities in each of the settlements; and (d) comparing the Private Securities Claims settlement and *NJ Carpenters* settlement to other recent RMBS-related litigation settlements in relation to the original principal balance and the maximum, intermediate, and minimum cash losses.

Identification of Settlements in Other Recent RMBS Cases

12. In connection with my initial analysis, based on my review of NERA's existing databases of credit crisis related securities litigation actions and a search of the LexisNexis Law360 articles archive, I compiled a list of recent settlements for RMBS cases. The search resulted in eleven settlements of RMBS-related securities litigation between investors and

RMBS issuers and underwriters.[3] Ten of the cases were class actions and one was an individual action. One additional RMBS-related securities litigation settlement, in *Federal Housing Finance Agency v. JPMorgan Chase & Co.*, 11 Civ. 6188 (S.D.N.Y.), was publicly announced after I completed my initial analysis. I have updated my analysis to incorporate this additional settlement.[4] Thus, my testimony reflects my comparison of the Private Securities Claims settlement and *NJ Carpenters* settlement with twelve recent settlements in RMBS-related securities litigation (the eleven in my initial analysis and the recently-announced *JPMorgan* settlement). They are:

[3] One case, *Citi v. Impac*, was excluded from the analysis because the allegations in the case related to specific issues of the servicing and pooling agreement of a specific security within a trust. None of the other settlements I considered focused on such an issue.

[4] The *JPMorgan* settlement does not change the conclusion in my Expert Report that the Private Securities Claims settlement and *NJ Carpenters* settlement are consistent with and within the range of recent RMBS-related securities litigation settlements.

Recent RMBS-Related Litigation Settlements

	Case Name	Shortened Name	Nature of Case	Date of Complaint[1]	Settlement Date[2]	Settlement Value ($M)
1.	In Re: Wells Fargo Mortgage-Backed Certificates Litigation	Wells Fargo	Class Action	5/28/2010	7/7/2011	$125
2.	Public Employees' Retirement System of Mississippi, et al. v. Merrill Lynch & Co., Inc. et al.	Merrill	Class Action	7/6/2010	11/18/2011	$315
3.	Massachusetts Bricklayers and Masons Trust Funds v. Deutsche Alt-A Securities, Inc.	Deutsche	Class Action	5/24/2010	3/26/2012	$33
4.	In Re: Lehman Brothers Mortgage Backed Securities Litigation	Lehman	Class Action	9/22/2010	6/22/2012	$40
5.	Public Employees' Retirement System of Mississippi, et al. v. Goldman Sachs	Goldman	Class Action	9/18/2009	7/31/2012	$27
6.	In Re IndyMac Mortgage-Backed Securities Litigation	IndyMac	Class Action	8/15/2011	8/1/2012	$6
7.	City Of Ann Arbor Employees' Retirement System, et al. v. Citigroup Mortgage Loan Trust Inc., et al.	Citi	Class Action	5/24/2010	8/27/2012	$25
8.	In Re: Washington Mutual Mortgage Backed Securities Litigation	WAMU	Class Action	4/1/2010	9/5/2012	$26
9.	Genesee County Employees' Retirement System et al. v. Thornburg Mortgage, Inc.	Thornburg	Class Action	12/19/2011	12/10/2012	$11
10.	Countrywide Financial Corp. actions	Countrywide	Class Action	6/6/2011	4/17/2013	$500
11.	FHFA et al. v. UBS Americas Inc. et al.	UBS	Individual	12/21/2011	7/25/2013	$885
12.	FHFA et al. v. JPMorgan Chase & Co. et al	JPMorgan	Individual	6/13/2012	10/25/2013	$4,000

Notes and Sources:
Data from case documents and Law360.
[1] In cases where multiple complaints were filed, the most recent amended complaint date was used.
[2] Settlement date is the earliest mention of the settlement value in Law360.

Comparison

13. I compared the Private Securities Claims settlement amount of $235 million and the *NJ Carpenters* settlement amount of $100 million to the other recent RMBS-related litigation settlements using commonly employed metrics.

14. First, I compared the settlements based on the original principal balance of the securities at issue.

15. Second, I compared them based on three measures of plaintiffs' cash losses ("Cash Losses") on the security through the date of sale on the RMBS. Cash Losses were

calculated as the original price[5] less the sale price[6] less the principal payments received[7]. This definition of Cash Losses is consistent with the "Recognized Losses" calculation in the plan of allocation of recent RMBS settlements.[8]

16. Because data on price at time of sale was not publicly available for many of the securities, the price at sale for securities with missing price data was calculated under three alternative assumptions: (1) maximum Cash Losses were calculated assuming the missing sale prices to be zero; (2) intermediate Cash Losses were calculated assuming the missing sale prices to be 50% of par value; and (3) minimum Cash Losses were calculated assuming the missing sale prices to be 100% of par value.[9]

17. I calculated each of these measures for each of the settlements I analyzed. For the Private Securities Claims trusts, I was provided data by the claimants on purchases of Debtor RMBS, including purchase dates, purchase price and quantity, and the related CUSIP numbers.[10] In addition, some of the claimants provided information on their sales of Debtor RMBS. I reviewed the settlement documents in the *NJ Carpenters* settlement and in the twelve other recent RMBS-related litigation settlements to determine the CUSIPs of the individual securities at issue. For each of the CUSIPs in the Private Securities Claims, *NJ Carpenters*, and the

[5] Purchase price or face value at issuance.

[6] Proceeds at time of sale or price at complaint date if the complaint precedes a sale.

[7] Or written-down as of the earlier of the complaint or sale date.

[8] Examples of cases where a similar formula for loss calculation was employed include: *Massachusetts Bricklayers and Masons Trust Funds v. Deutsche Alt-A Securities, Inc., Genesee County Employees' Retirement System, et al. v. Thornburg Mortgage, Inc., et al., Public Employees' Retirement System of Mississippi, et al. v. Goldman Sachs Group, Inc., City Of Ann Arbor Employees' Retirement System, et al. v. Citigroup Mortgage Loan Trust Inc., et al., and In Re: Washington Mutual Mortgage Backed Securities Litigation.*

[9] I calculated Cash Losses using two additional methods: 1) including interest shortfalls in the cash flow loss calculation and 2) using the estimates of price or value contained in the recognized loss calculation in the settlement allocation documents as the price at the time of sale. The findings did not change with these alternative methods.

[10] A CUSIP number is a unique nine character alphanumeric code that identifies securities for the purposes of facilitating clearing and settlement of trades.

comparison settlements, I obtained data from Bloomberg on cash flow, principal balance, write-downs, and pricing[11] and used this information, along with relevant transaction information received from counsel, to compute the original principal balance and the maximum, intermediate, and minimum Cash Losses.

18. For each of the metrics, I compared the Private Securities Claims settlements and the *NJ Carpenters* settlement to the other recent RMBS settlements as both a simple percentage and on a logarithmic scale.[12] Models of settlement values in securities litigation are commonly analyzed using the logarithmic relationship. The logarithmic relationship captures the empirically observed phenomenon that settlements as a percentage of losses decrease as the size of the case increases. In other words, larger cases generally tend to settle for a larger absolute amount but a smaller percentage of losses. NERA has analyzed and modeled settlements in securities class actions involving equities for over 15 years. NERA annually revises its model and has consistently concluded to apply the logarithmic relationship to predict and analyze settlements. Academics and other experts analyzing securities litigation settlements frequently use the logarithmic relationship.

Comparison of Settlement Amounts to Original Principal Balance

19. Based on the CUSIP and purchase data supplied by holders of the Private Securities Claims and information from Bloomberg databases, I calculated the Private Securities Claims original principal balance to be $8.00 billion. Based on that calculation, the $235 million Private Securities Claims settlement is 2.9% of the original principal balance of the RMBS

[11] Publicly available pricing data for RMBS securities is extremely limited. I conducted a review of public documents regarding the other recent RMBS-related litigation settlements to find pricing and/or estimates of plaintiff losses. Estimates of plaintiff losses were not available. For a number of the other recent RMBS-related litigation settlements, settlement allocation documents included estimates of price or value for the CUSIPs.

[12] On a logarithmic scale an equal difference in order of magnitude is represented by an equal distance. Slide rules, for example, use a logarithmic scale.

related to the settlement. Based on the CUSIPs and information from Bloomberg databases, I calculated the *NJ Carpenters* class's original principal balance to be $38.34 billion. Based on that calculation, the $100 million *NJ Carpenters* settlement is 0.3% of the original principal balance of the RMBS related to the settlement. The table below shows that using this metric the Private Securities Claims settlement and *NJ Carpenters* settlement are within the range of other recent RMBS-related litigation settlements.

Comparison of Settlement Amounts to Original Principal Balance
($ in millions)

Case	Settlement Value	OPB Of Notes Related To Settlement	Settlement As a % of OPB
1. IndyMac	$ 6	$21,057	0.03 %
2. Lehman	40	23,549	0.17
3. Thornburg	11	5,487	0.21
4. ResCap/NJ Carpenters	100	38,342	0.26
5. Wells Fargo	125	36,379	0.34
6. Deutsche	33	2,554	1.27
7. Citi	25	1,921	1.30
8. WAMU	26	1,946	1.34
9. Merrill	315	16,539	1.90
10. ResCap/PSC	235	8,002	2.94
11. Goldman	27	724	3.68
12. Countrywide	500	12,289	4.07
13. JPMorgan	4,000	33,000	12.12
14. UBS	885	6,400	13.83

Comparison of Settlement Amounts to Maximum Cash Losses

20. Based on the CUSIP and purchase data supplied by holders of the Private Securities Claims and information from Bloomberg databases, I calculated the Private Securities Claims maximum Cash Losses to be $3.05 billion. Based on that calculation, the $235 million Private Securities Claims settlement is 7.7% of the maximum estimated Cash Losses. Based on the CUSIPs and information from Bloomberg databases, I calculated the *NJ Carpenters* class's

Maximum Cash Losses to be $21.23 billion. Based on that calculation, the $100 million *NJ Carpenters* settlement is 0.5% of the maximum Cash Losses of the RMBS related to the settlement. The table below shows that using this metric the Private Securities Claims and *NJ Carpenters* settlement are within the range of other recent RMBS-related litigation settlements.

Comparison of Settlement Amounts to Maximum Cash Losses
($ in millions)

Case	Settlement Value	Maximum Cash Losses	Settlement As a % of Loss
1. IndyMac	$ 6	$11,485	0.05 %
2. Lehman	40	10,040	0.40
3. ResCap/NJ Carpenters	100	21,227	0.47
4. Thornburg	11	2,048	0.55
5. Wells Fargo	125	21,592	0.58
6. Deutsche	33	1,501	2.17
7. Citi	25	1,004	2.49
8. WAMU	26	939	2.77
9. Merrill	315	7,010	4.49
10. Goldman	27	370	7.19
11. ResCap/PSC	235	3,050	7.71
12. Countrywide	500	4,023	12.43
13. UBS	885	1,947	45.45
14. JPMorgan	4,000	8,235	48.57

Comparison of Settlement Amounts to Intermediate Cash Losses

21. Based on the CUSIP and purchase data supplied by holders of the Private Securities Claims and information from Bloomberg databases, I calculated the Private Securities Claims intermediate Cash Losses to be $2.59 billion. Based on this calculation, the $235 million Private Securities Claims settlement is 9.1% of the intermediate Cash Losses. Based on the CUSIPs and information from Bloomberg databases, I calculated the *NJ Carpenters* intermediate cash loss to be $13.91 billion. Based on that calculation, the $100 million *NJ Carpenters* settlement is 0.7% of the intermediate Cash Losses of the RMBS related to the settlement. The

table below shows that using this metric the Private Securities Claims settlement and *NJ Carpenters* settlement are within the range of other recent RMBS-related litigation settlements.

Comparison of Settlement Amounts to Intermediate Cash Losses ($ in millions)

Case	Settlement Value	Intermediate Cash Losses	Settlement As a % of Loss
1. IndyMac	$ 6	$ 7,166	0.08 %
2. Lehman	40	7,718	0.52
3. ResCap/NJ Carpenters	100	13,913	0.72
4. Thornburg	11	1,043	1.08
5. Wells Fargo	125	11,078	1.13
6. Deutsche	33	875	3.71
7. Citi	25	607	4.11
8. WAMU	26	533	4.88
9. Merrill	315	5,341	5.90
10. Goldman	27	370	7.19
11. ResCap/PSC	235	2,586	9.09
12. Countrywide	500	2,222	22.51
13. JPMorgan	4,000	6,391	62.59
14. UBS	885	1,361	65.04

Comparison of Settlement Amounts to Minimum Cash Losses

22. Based on the CUSIP and purchase data supplied by holders of the Private Securities Claims and information from Bloomberg databases, I calculated the Private Securities Claims minimum Cash Losses to be $2.14 billion. Based on this calculation, the $235 million Private Securities Claims settlement is 11.0% of the minimum Cash Losses. Based on the CUSIPs and information from Bloomberg databases, I calculated the *NJ Carpenters* minimum Cash Losses to be $6.61 billion. Based on that calculation, the $100 million *NJ Carpenters* settlement is 1.5% of the minimum Cash Losses of the RMBS related to the settlement. The table below shows that using this metric the Private Securities Claims settlement and *NJ Carpenters* settlement are within the range of the settlements of other recent RMBS-related litigation settlements.

Comparison of Settlement Amounts to Minimum Cash Losses
($ in millions)

Case	Settlement Value	Minimum Cash Losses	Settlement As a % of Loss
1. IndyMac	$ 6	$ 2,851	0.21 %
2. Lehman	40	5,395	0.74
3. ResCap/NJ Carpenters	100	6,605	1.51
4. Goldman	27	370	7.19
5. Merrill	315	3,672	8.58
6. ResCap/PSC	235	2,136	11.00
7. Citi	25	210	11.89
8. Deutsche	33	250	13.00
9. Wells Fargo	125	612	20.43
10. WAMU	26	127	20.53
11. Thornburg	11	37	30.08
12. JPMorgan	4,000	4,548	87.96
13. UBS	885	774	114.31
14. Countrywide	500	420	119.01

Logarithmic Comparison of Settlements

23. The charts below show the Private Securities Claims settlement and *NJ Carpenters* settlement relative to other recent RMBS-related litigation settlements for each of the four metrics using the logarithmic approach.

24. Each chart depicts a data point for each settlement with the vertical axis representing the magnitude of the settlement and the horizontal axis representing the magnitude of the Cash Losses (or the original principal balance). The scales of the axes are logarithmic and indicate both log values as well as the corresponding dollar amounts.

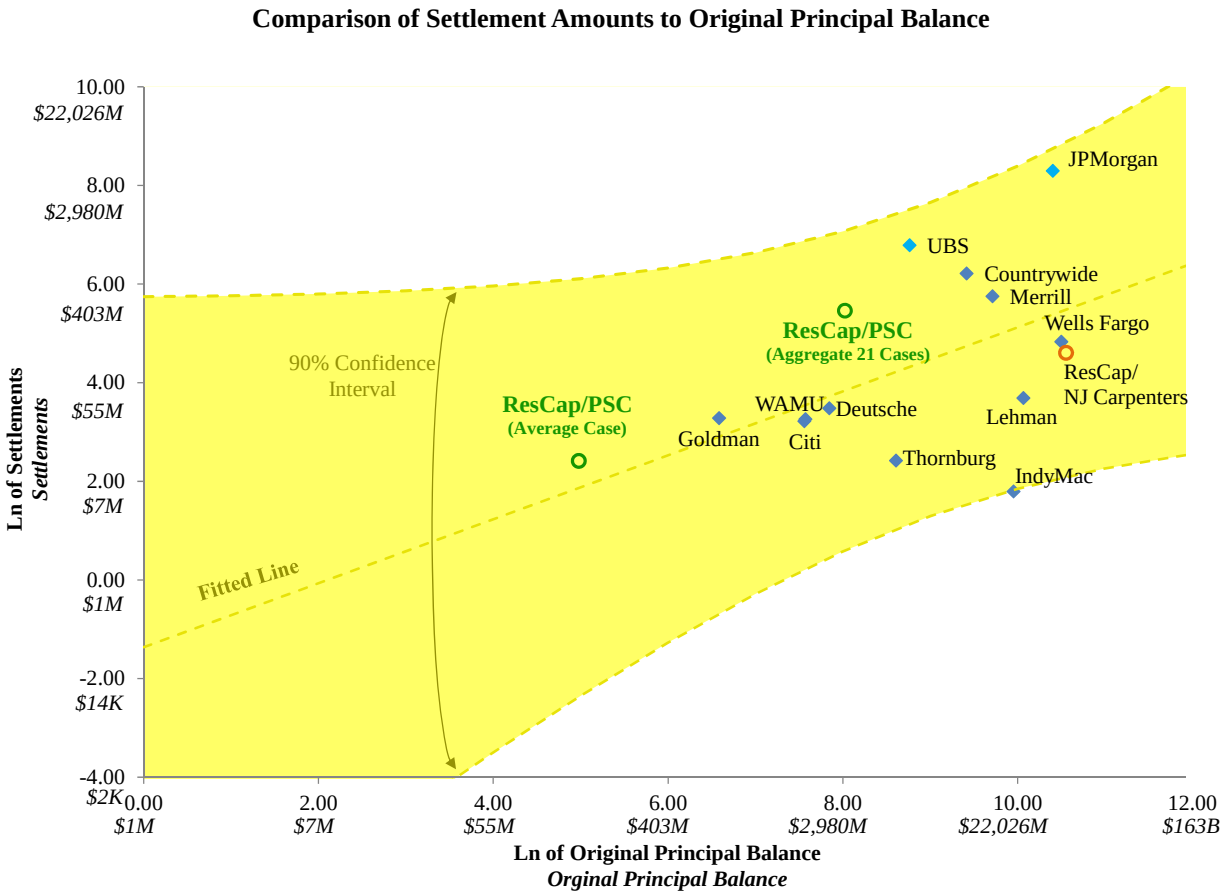
25. The charts include a trend line based on the observed relationship of the twelve recent RMBS settlements. The yellow shaded area depicts a 90% confidence interval around the trend line.[13]

26. I understand that the Private Securities Claims settlement is settling twenty-one different individual lawsuits or tolled claims rather than one aggregate lawsuit. If RMBS settlements follow the pattern observed in equity class actions, where settlements are not a fixed percent of losses but rather the percentage declines as the size of the cases increases, then the comparison in logarithmic terms would be different for the sum of twenty-one individual cases rather than one aggregate case.[14] Thus, in addition to treating the Private Securities Claims settlement in aggregate, the charts below include a data point for an average individual private securities claim settlement. In other words, in addition to viewing the Private Securities Claims settlement as one data point of $235 million, the chart also depicts an average settlement of $11

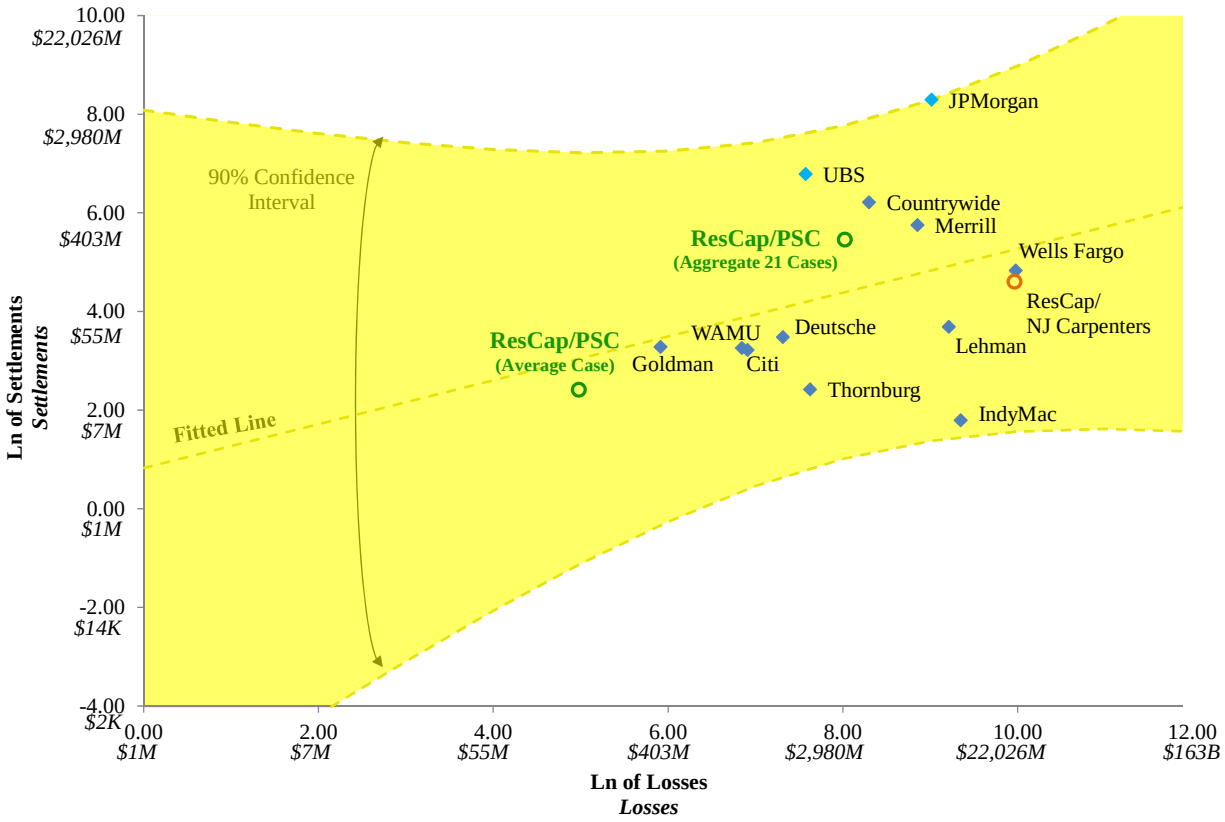
[13] In general, for a given estimated trend line, 10% of observations would be expected to fall outside the 90% confidence interval by chance alone. Note that the trend line and confidence interval have been updated vs. the initial analysis to reflect the inclusion of the JPMorgan settlement.

[14] Note that this difference does not exist in the percentage analysis.

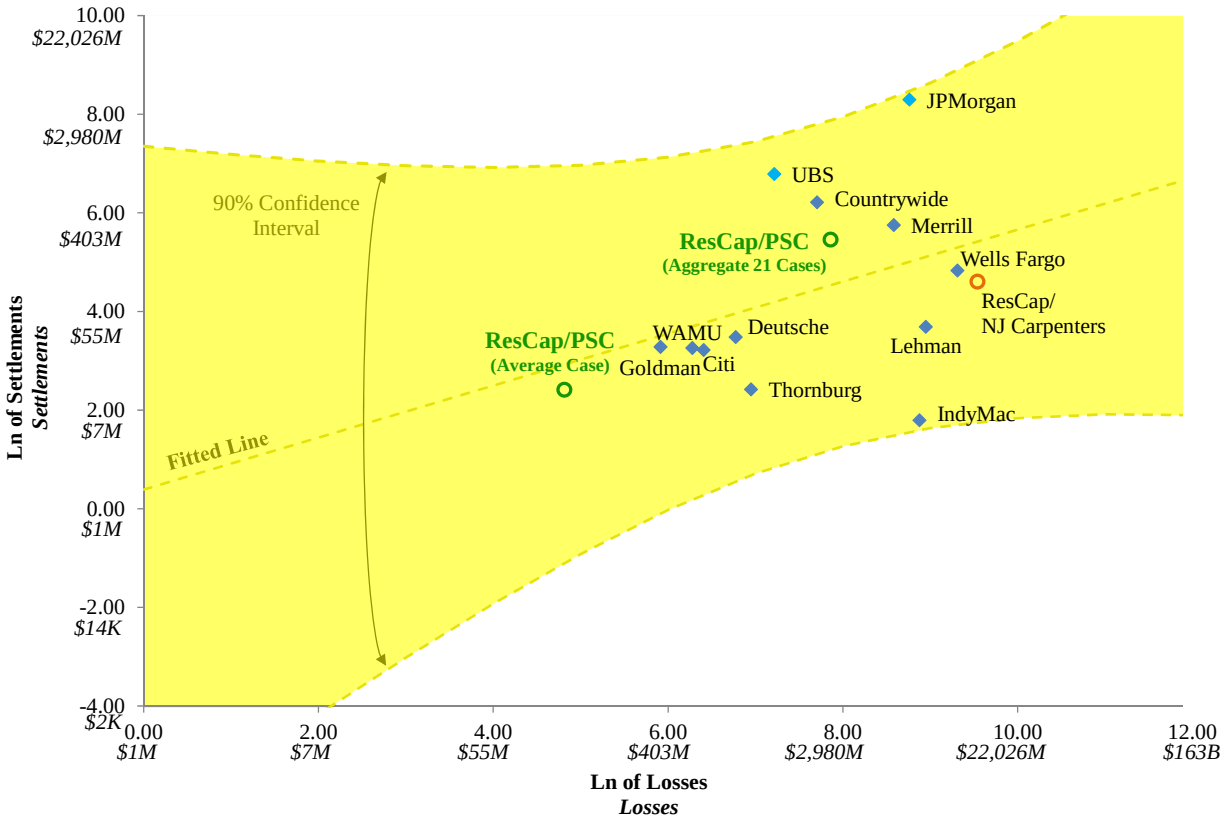
million ($235 million divided by 21) with corresponding average losses (or original principal balance).



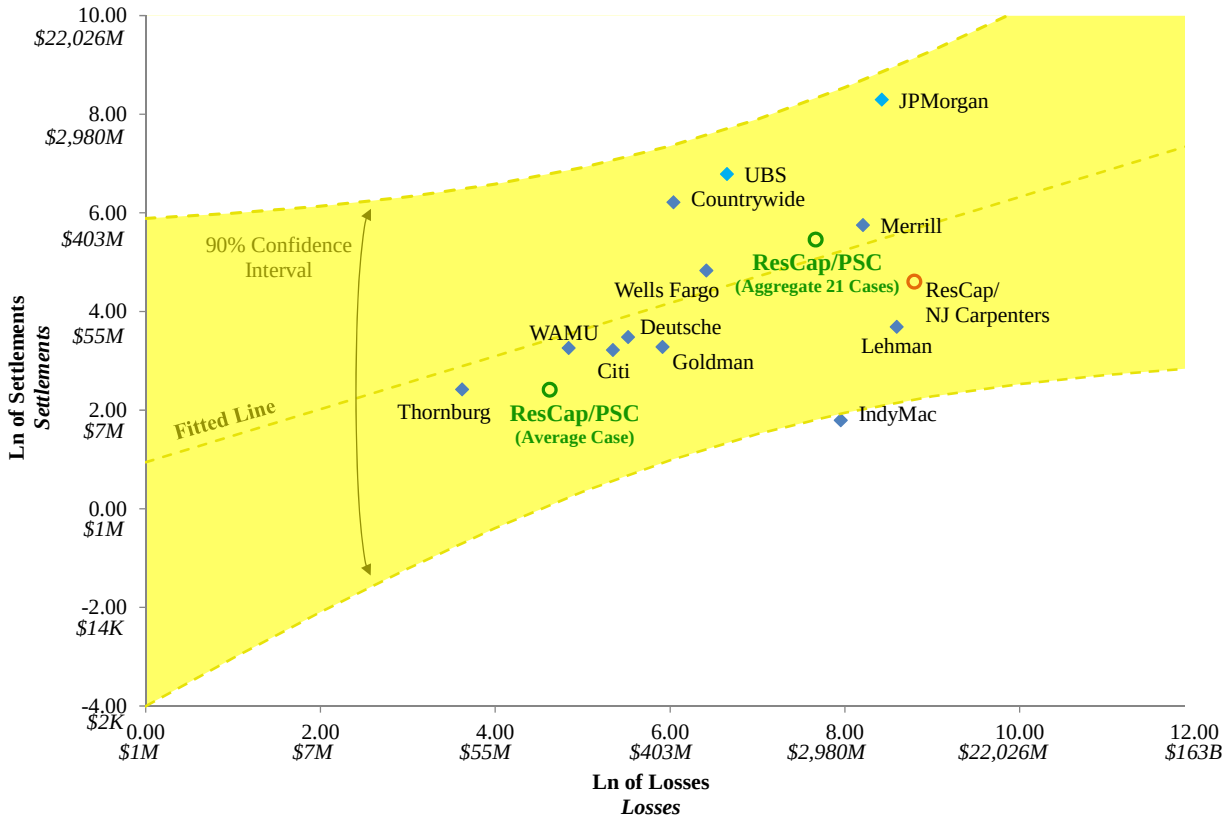
Comparison of Settlement Amounts to Maximum Cash Losses



Comparison of Settlement Amounts to Intermediate Cash Losses



Comparison of Settlement Amounts to Minimum Cash Losses



A Comment on the Use of Class Action Comparisons

27. The other recent RMBS-related litigation settlements I identified are largely class action settlements. Historically, details of class action settlements are more likely to be publicly disclosed than private actions. In particular, ten of the twelve recent RMBS settlements that I considered were class action settlements. A number of factors suggest that the class action RMBS settlements could be adjusted upward for a more appropriate comparison to the Private Securities Claims settlement.

28. First, balances and Cash Losses for the securities class actions in the RMBS settlements are not adjusted for opt-outs. Data on opt-outs was generally not available. Accounting for opt-outs would reduce the balances and losses covered by a settlement, which would effectively increase the settlement value relative to original principal balance and Cash Losses.

29. Second, academic literature suggests that relative to class actions, individual securities litigations tend to settle for higher amounts. Academic studies attribute this difference to both legal advantages of individual actions, including fewer pleading standards, no class certification requirements, and lower bars to proving reliance, and economic advantages of individual actions, including the agency costs associated with proceeding as a class action.

30. Third, not all claimants in securities class actions may file claims for their allocated share of the settlement. Empirical evidence suggests that claimants in securities class actions file at rates below 50%.[15]

31. As a result, comparison with class action settlements may overstate the relative size of the Private Securities Claims settlement. In this regard, I note that the *UBS Americas* and

[15] See, for example, Cox and Thomas (2005), Allen (2008), Fischel, Ross, and Keable (2006), and Pace and Rubenstein (2008).

JPMorgan settlements are the only individual settlements in my comparison and are the highest relative settlements for most of the metrics I examined.

CONCLUSION

32. In summary, I compared the Private Securities Claims settlement and the *NJ Carpenters* settlement with twelve settlements of other recent RMBS cases based on metrics commonly used to analyze settlements. In particular, I examined settlement amounts relative to original principal amounts and Cash Losses. I compared the settlements applying a simple percentage as well as a logarithmic approach. Based on the analysis, for all metrics, I found that the Private Securities Claims settlement and the *NJ Carpenters* settlement were consistent with and fell within the range of other recent RMBS litigation settlements.

I declare under penalty of perjury that the foregoing is true and correct. Executed the 12th day of November, 2013, at New York, New York.

/s/ Lucy Allen
Lucy Allen