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*Committee of Unsecured Creditors*

**UNITED STATES BANKRUPTCY COURT**
**SOUTHERN DISTRICT OF NEW YORK**

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

**THE OFFICIAL COMMITTEE OF UNSECURED CREDITORS' FEDERAL RULE OF CIVIL PROCEDURE 26(A)(2) EXPERT DISCLOSURES**

Pursuant to Rule 26(a)(2) of the Federal Rules of Civil Procedure, as incorporated by Rule 7026 of the Federal Rules of Bankruptcy Procedure, the Official Committee of Unsecured Creditors (the "Committee"), by its attorneys, hereby makes the following expert disclosure.

The Committee may call the following individuals as expert witnesses to testify at trial or any hearing concerning the *Debtors' Motion Pursuant to Fed. R. Bankr. P. 9019 for Approval of RMBS Trust Settlement Agreements* [ECF Doc. # 320] and the *Debtors' Supplemental Motion Pursuant to Fed. R. Bankr. P. 9019 for Approval of RMBS Trust Settlement Agreements* [ECF Doc. # 1176]:

**Bradford Cornell, Ph.D., San Marino Business Partners**

Address:
607 Foxwood Road
La Canada, CA 91101
(626) 833-9978

In support of the Committee's disclosure of this expert, attached hereto as Exhibit A is the Expert Report of Bradford Cornell, Ph.D.

Please refer to the following documents for the fees that this expert will be paid in this matter: *Application of the Official Committee of Unsecured Creditors for an Entry of an Order Authorizing the Employment and Retention of San Marino Business Partners LLC, as Consultant to the Committee, Nunc Pro Tunc to August 11, 2012* [Docket # 1281].

**J.F. Morrow, B&F Experts**

5514 Darmondale Blvd.
San Antonio, TX 78261
(212) 651-3749

In support of the Committee's disclosure of this expert, attached hereto as Exhibit B is the Expert Report of J.F. Morrow.

Please refer to the following documents for the fees that this expert will be paid in this matter: *Application of the Official Committee of Unsecured Creditors for an Entry of an Order Authorizing the Employment and Retention of J.F. Morrow, as Consultant to the Committee, Nunc Pro Tunc to September 5, 2012* [Docket # 1419].

Dated: New York, NY
December 3, 2012

KRAMER LEVIN NAFTALIS & FRANKEL LLP

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*Counsel for the Official Committee*
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# EXHIBIT A

**Expert Report of Bradford Cornell, Ph.D.**

**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 |

# EXPERT REPORT OF BRADFORD CORNELL, Ph.D.

## 1. Introduction and Summary of Opinions

### 1.1. Assignment

1. On June 11, 2012, Residential Capital, LLC ("ResCap") and its affiliated Debtors (together, the "Debtors") submitted a motion in this case seeking approval of a settlement (as amended, the "Proposed Settlement") under which an allowed claim amount of up to $8.7 billion against Debtors Residential Funding Company, LLC and GMAC Mortgage LLC (the "Agreed Claim") will be allocated among up to 392 residential mortgage securitization trusts (the "ResCap Trusts" or "Trusts").[1] The Proposed Settlement stems from losses incurred, and that may yet be incurred, on residential mortgage loans that served as the collateral for residential mortgage backed securities ("RMBS") issued by the ResCap Trusts. Some of the loans securitized by the ResCap Trusts are alleged not to comply with applicable representations and warranties ("R&Ws") contained in the relevant governing agreements. The Debtors dispute the Trusts' R&W Claims, but cite $30.3 billion in cumulative losses to date and prospective litigation costs and risks in seeking approval of the Proposed Settlement.[2]

2. I have been asked by counsel for the Official Committee of Unsecured Creditors (the "Committee") to analyze the available evidence to provide an independent economic analysis of the

[1] Debtors' Motion Pursuant To Fed. R. Bankr. P. 9019 for Approval of the RMBS Trust Settlement Agreements, June 11, 2012 ("Debtors' Motion"), p. 1.
[2] Debtors' Motion, pp. 2-3.

amount of losses that the ResCap Trusts incurred on mortgage loans that can be attributed to material defects in the underwriting of those loans. My analysis relates only to the Trusts' contractual "put-back" or "repurchase" claims under the governing agreements.

### 1.2. Qualifications

3. I am currently a Visiting Professor of Financial Economics at the California Institute of Technology ("Caltech"). Previously, for 26 years, I was a Professor of Finance and Director of the Bank of America Research Center at the Anderson Graduate School of Management at the University of California, Los Angeles.

4. I received a master's degree in statistics from Stanford University in 1974 and a doctorate in Financial Economics from Stanford in 1975. I have served as an editor of numerous journals relating to business and finance and have written more than 100 articles and two books on finance and securities, including Corporate Valuation: Tools For Effective Appraisal and Decision Making (1993), published by McGraw-Hill, and The Equity Risk Premium and the Long-Run Future of the Stock Market (1999), published by John Wiley and Sons. To complement my academic writing, I have also authored articles for The Wall Street Journal and the Los Angeles Times.

5. My research has been widely recognized. In 1988, I was cited by the Financial Management Association as one of the ten most prolific authors in the field of finance. I have received prizes and grants for my research from the Chicago Board of Trade, the Chicago Mercantile Exchange, and the Institute for Quantitative Research in Finance. My article, "Corporate Stakeholders and Corporate Finance," received the 1987 Distinguished Applied Research Award from the Financial Management Association. In 1999, I was awarded the I/B/E/S prize for empirical work in finance and accounting (with Wayne Landsman and Jennifer Conrad). Richard Roll and I received a Graham and Dodd Scroll Award in 2006 from the Financial Analyst Society for our work on delegated agent asset

pricing theory. I won this award again in 2011 for my work on economic growth and equity investing. My paper entitled "Luck, Skill, and Investment Performance" in The Journal of Portfolio Management won an Outstanding Article prize from the 11th Annual Bernstein Fabozzi/Jacobs Levy Awards.

6. I have also been active in my profession. I have served as a Vice President of the Western Finance Association. I am also a past director of both the American Finance Association and the Western Finance Association. I have served as an associate editor of numerous professional journals including: The Journal of Finance, The Journal of Futures Markets, The Journal of Financial Research and The Journal of International Business Studies. I have served as a reviewer for nearly a dozen other professional journals.

7. My teaching and writing have focused on a number of different financial and economic issues, many of which are relevant to the subject matter of this report. I currently teach Applied Corporate Finance and Investment Banking at Caltech. Examples of other classes I have taught over the course of my academic career include Corporate Valuation, the Law and Finance of Corporate Acquisitions and Restructurings, Corporate Financial Theory, and Security Valuation and Investments.

8. In addition to my teaching, writing, and research studies, I have long advised business and legal clients on financial economic issues. I have been assisted in that work by other economists and support staff. Between 1990 and March 1999, I operated FinEcon, a financial economic consulting company, through which I also advised business and legal clients on financial economic issues. I served as a Senior Consultant to Charles River Associates from March 1999 through December 2011. Since December 2011, I have been a Senior Consultant to Compass Lexecon. I am also the Managing Director of San Marino Business Partners. In preparing this report, I have been assisted by colleagues at San Marino Business Partners and other consultants retained by the Committee, particularly the professionals at Coherent Economics.

9. I have served as a consultant and have given testimony for both plaintiffs and defendants in a variety of securities, regulatory and commercial legal disputes, including with respect to valuation, corporate finance, portfolio management and damages issues. I have been engaged as a damages expert in numerous high-profile cases which revolved around complex financial and securities transactions.

10. I have extensive expertise in structured finance and valuation in a variety of contexts, including with respect to RMBS. I have provided expert analysis on the financial consequences of the housing crisis. In particular, I have served as an expert in cases involving the genesis of the financial crisis and whether it was foreseeable, the risk and return of structured securities backed by residential mortgages, and the rating of structured securities backed by residential mortgages.

11. My background is described more fully in my curriculum vitae, which is attached as Exhibit 1. A list of my publications may also be found in Exhibit 1. A list of testimony I have given in deposition or at trial over the past four years may be found in Exhibit 2. I, and economists and support staff working under my direction, have had access to databases containing many thousands of documents and data files, including the “Relativity” database maintained by Alix Partners, the Intralinks virtual “data room,” and the ResCap “Vision” Internet portal, and have considered many of the materials stored in those databases and in the public domain, as shown in Exhibit 3. The materials that I relied on in preparing this report are listed in footnotes throughout the report.

12. I am being compensated at a rate of $975 per hour for my work in this matter. My compensation is not contingent on the results of this case or on my opinions.

### 1.3. Summary of Opinions

13. In this report, I describe the basis for the following main opinions.

14. **Opinion 1:** The housing and financial crisis caused substantial losses on the types of loans securitized by the ResCap Trusts. The crisis has caused substantial losses to mortgage-related assets throughout the U.S. economy and would have caused losses to the ResCap Trusts even had there been no underwriting defects or R&W breaches.

15. **Opinion 2:** Underwriting defects appear to have caused additional losses of about $3.8 billion to the ResCap Trusts. Certain legal considerations based on statute of limitations, if applicable, may reduce the Debtors' liability to an estimated range of $2.7 billion to $3.3 billion. A further adjustment that I describe below, which is based on a recent Federal Court decision in Minnesota regarding the unavailability of a put-back right once mortgages have terminated, may reduce the Debtors' liability still further.

16. **Opinion 3:** Mr. Sillman's analysis of the Debtors' estimated repurchase obligations is unreliable. The attempts of Debtors' expert, Frank Sillman, to estimate the total settlement amount that the Debtors "might agree" to pay on account of alleged R&W breaches is flawed in a number of respects. For one thing, Mr. Sillman is handicapped by his lack of reliance on any information specifically concerning the underwriting characteristics of the loans at issue. His conjectures about what fraction of loan losses the Debtors "might agree" to pay lack any empirical foundation beyond Mr. Sillman's assurances that his assumptions are consistent with his experiences in other settings, involving different lenders and different loans.

## 2. The Housing and Financial Crisis Caused Substantial Losses on the Types of Loans Securitized by the ResCap Trusts

17. The Proposed Settlement relates to potential claims arising from losses on mortgage loans that served as collateral for mortgage backed securities. One potential source of losses on a loan is the existence of one or more flaws in the origination of the loan that might represent a material underwriting defect. Factors other than underwriting defects, such as a general economic downturn

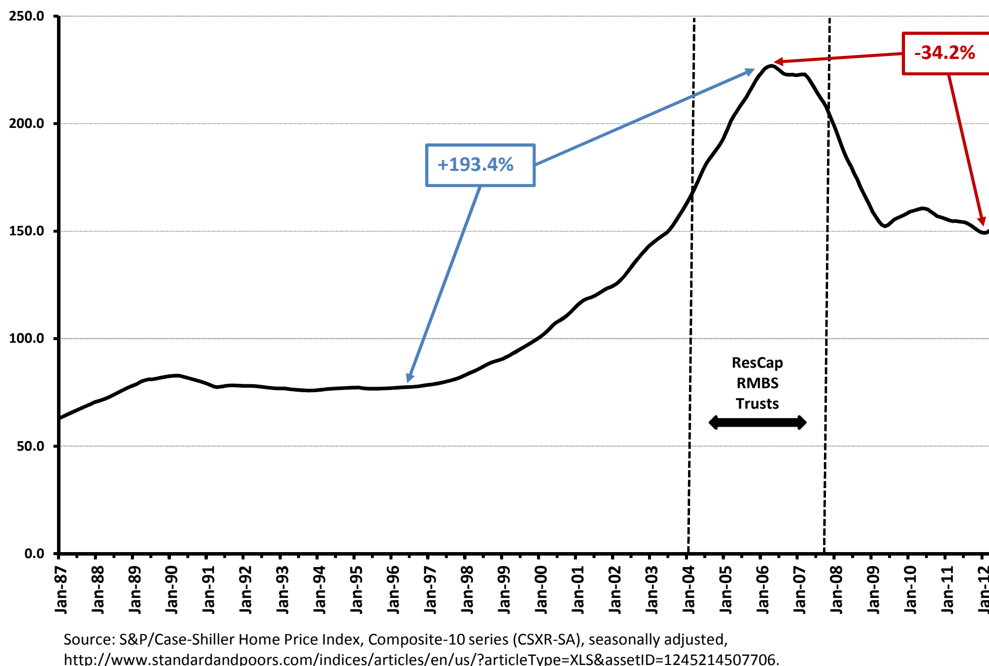
and decline in housing prices, may also contribute to a loss on a loan, whether or not there was a material underwriting defect. In fact, after the ResCap Trusts were formed, there were very substantial disruptions in the housing and housing finance sectors which likely contributed to losses incurred by the ResCap Trusts.

18. As Figure 1 shows, average U.S. house prices began to increase at a tremendous rate beginning in the mid-1990s and accelerating in the following decade. The Case-Shiller (composite U.S.) Home Price Index increased by over 20% in a single year, from 2003 to the summer of 2004. Lenders became willing to make loans to less creditworthy mortgage applicants on the assumption that the increased risk would be offset by the increasing home prices. For example, subprime mortgage originations, a category newly created in the 1980s, grew from $65 billion in 1995 to over $330 billion in 2003.[3] These loans ultimately displayed dramatically higher delinquency and foreclosure rates compared to traditional mortgages. During the period 1998–2002, the percentage of subprime loans in foreclosure grew by a factor of four, while the corresponding measure for prime fixed-rate loans decreased.[4] Yet, the subprime market continued to grow because housing prices continued to increase at accelerating rates. The range of riskier, non-traditional mortgages expanded to include such products as low- and no-documentation loans, high-loan-to-value loans (LTV, including cash-out refinances and second liens), and interest-only and negative amortization loans.

[3] Souphala Chomsisengphet and Anthony Pennington-Cross, “The Evolution of the Subprime Mortgage Market,” Federal Reserve Bank of St. Louis Review, January/February 2006, 88(1), p. 37.
[4] Ibid., p. 33.

**Figure 1**

**U.S. Home Price Index, 1987-2012**



Source: S&P/Case-Shiller Home Price Index, Composite-10 series (CSXR-SA), seasonally adjusted,
http://www.standardandpoors.com/indices/articles/en/us/?articleType=XLS&assetID=1245214507706.

19. The ResCap Trusts securitized a variety of loan types, as summarized (at a high level) in Figure 2, including many "Alt-A" loans (31.1% of original ResCap Trust balances), subprime loans (22.0% of balances), and various types of second liens and home equity lines of credit ("HELOCs"), often with LTV ratios of 100% or more.[5] These loans offered investors higher yields but also greater risk. For example, the loan interest rates in the RFMSII 2006-HI5 pool averaged 12.5% – in a year in which the average "conforming" first lien mortgage loan rate in the United States was 6.41%.[6]

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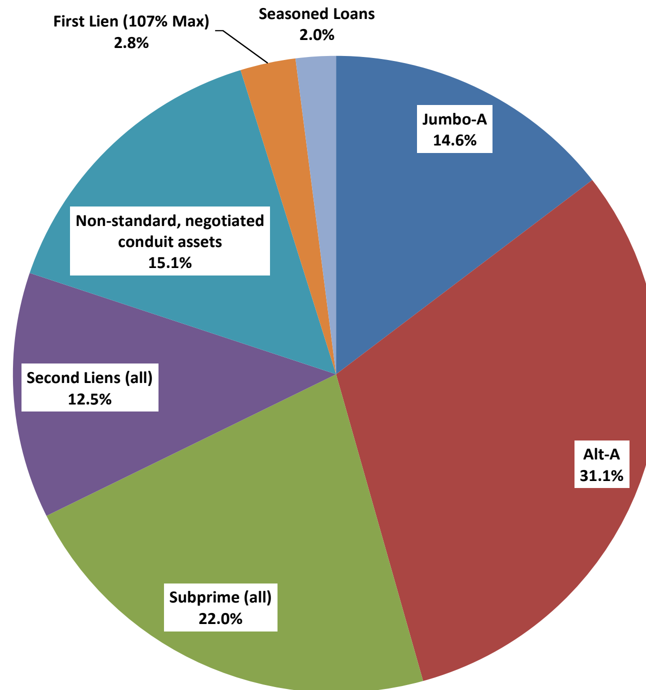
[5] RC-9019_00000002. Compared to prime mortgages, Alt-A and subprime loans are extended to borrowers with lower credit ratings, insufficient documentation of income, and/or smaller down payments. Congressional Budget Office, *Fannie Mae, Freddie Mac, and the Federal Role in the Secondary Mortgage Market*, December 2010. Available online at http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/120xx/doc12032/12-23-fanniefreddie.pdf, last visited on November 25, 2012.

[6] Prospectus Supplement to Prospectus dated December 20, 2006, RFMSII 2005-HI5, p. S-5; Board of Governors of the Federal Reserve release H.15, series RMMPCCFC_N.M, contract rate on commitments for fixed-rate first mortgages (data provided by Primary Mortgage Market Survey), http://www.federalreserve.gov/datadownload/Output.aspx?rel=H15&series=2f55cd29508d50a0f623843328a7e1ba&lastObs=&from=&to=&filetype=csv&label=include&layout=seriescolumn.Conforming loans meet the requirements to be purchased by one of the government sponsored enterprises (GSEs).

**Figure 2**

**Distribution of ResCap Trust Loan Types, by Original Deal Balances**




Source: Fortace "Trust Summary, By Entity, Shelf, By Product," spreadsheet "Bal by Entity, Shelf," RC-9019_00000002.

20. The nature of the underwriting for the loans in the ResCap Trusts was disclosed contemporaneously with the securitizations. For example, as ResCap attorney Jeffrey Lipps explains, the various prospectus supplements disclosed risks such as:[7]

- Loans originated using less stringent underwriting guidelines than used in other securitizations.
- Loans made under "limited documentation," "streamlined documentation," or "no documentation" programs. Under some such programs, "minimal investigation into the mortgagor's credit history and income profile is undertaken by the originator…"
- Loans made to borrowers whose income is not required to be disclosed or verified, or may be less than represented.
- Determination of owner occupancy status based only on a representation by the borrower.

[7] Lipps Supplemental Declaration, September 28, 2012, pp. 10-13.

- Automated valuation services used in lieu of an appraisal, appraisers who are employees of loan originators, and/or appraised values based only on a broker's price opinion or a "drive-by" appraisal.
- "The level of review by Residential Funding Company, LLC, *if any*, will vary…" (emphasis added).
- Loans that do not meet the [RFC] underwriting standards.

21. Even as the housing market began to decline in late 2006 and early 2007, analysts and leading government officials typically predicted only a modest, temporary decrease in home prices, followed by renewed price increases. For example, the National Association of Realtors new single-family home price forecast in January 2007 was +1.8% for all of 2007 and +3.4% for 2008.[8] In early 2007, Freddie Mac forecast a 3.6% increase in home price for 2008, and Fannie Mae predicted a 2.2% decrease in home prices in 2007, followed by price appreciation of 1.0% in 2008.[9] As late as May 2007, the Wall Street Journal reported that the Federal Reserve decided to keep the fed funds rate at 5.25% because policy makers were upbeat about economic growth.[10]

22. The widely predicted price recovery did not materialize. Instead, there was a massive collapse in home prices, by a cumulative 34.2% by late 2011. The value of homes securing many loans, particularly those issued when home prices were at or near their peak levels, fell significantly below the loan amounts, i.e., the loans became "underwater" (or more deeply underwater, instead of improving to positive equity, if they were issued with negative borrower equity). The magnitude of home price declines meant than even mortgages formerly considered to be relatively low risk loans with, for example, 80% LTV ratios, might be underwater.[11] High LTV loans issued at the height of the housing

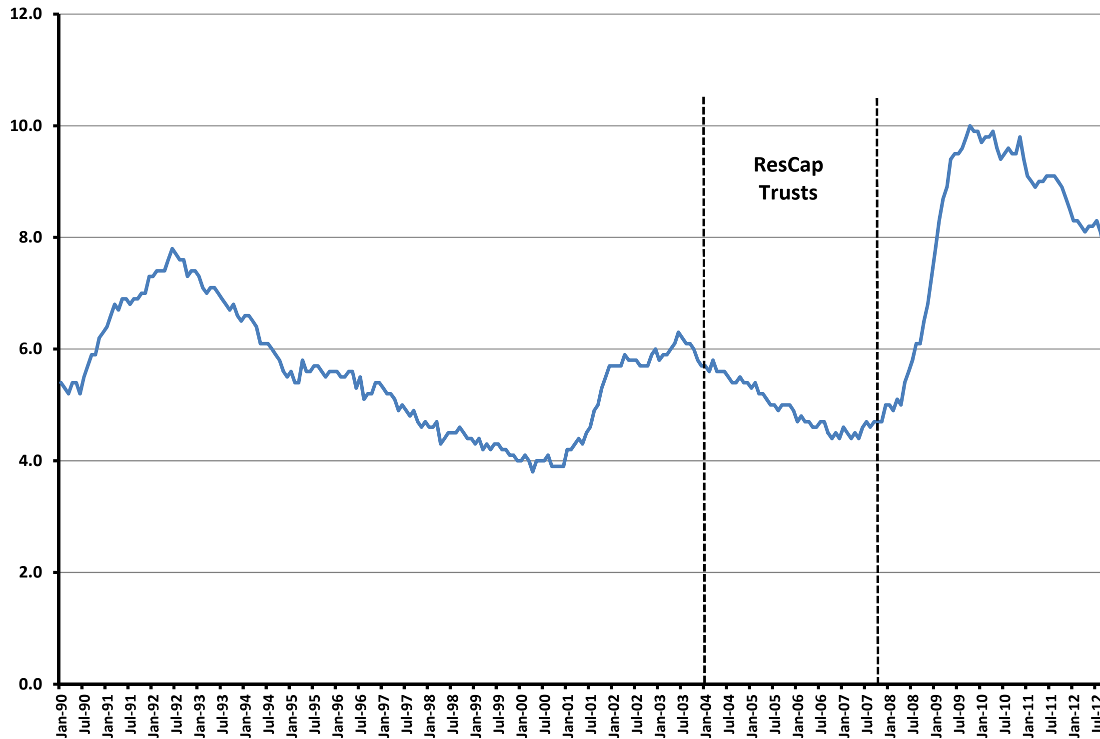
[8] U.S. Residential Finance Group, Housing and Economic Outlook, February 7, 2007 (RC21483062), p. 2.
[9] Id., p. 14.
[10] Deborah Lynn Blumberg, "Treasurys Notch Small Gains," The Wall Street Journal, May 31, 2007.
[11] Prices declined by more than 40% in seven of the twenty cities tracked in Case-Shiller Home Price Indexes, including two cities that experienced price declines in excess of 50%. See, Case-Shiller Home Price Index Levels (seasonally adjusted),
http://www.standardandpoors.com/indices/articles/en/us/?articleType=XLS&assetID=1245214507706.

boom, such as cash-out refinances, and properties with second liens such as home equity lines of credit on top of the first lien mortgage were likely to be substantially underwater.

23. The downturn in the housing and housing finance sectors was soon followed by a recession and sharply higher unemployment. The unemployment rate rose from just over 4% in early 2007 to about 10% by mid-2009. (Figure 3.) Unemployment and declining household incomes, moreover, meant that many Americans could not afford their monthly mortgage payment, further exacerbating the decline in the housing sectors and losses suffered by mortgage lenders and investors.

**Figure 3**

**U.S. Unemployment Rate (%)**



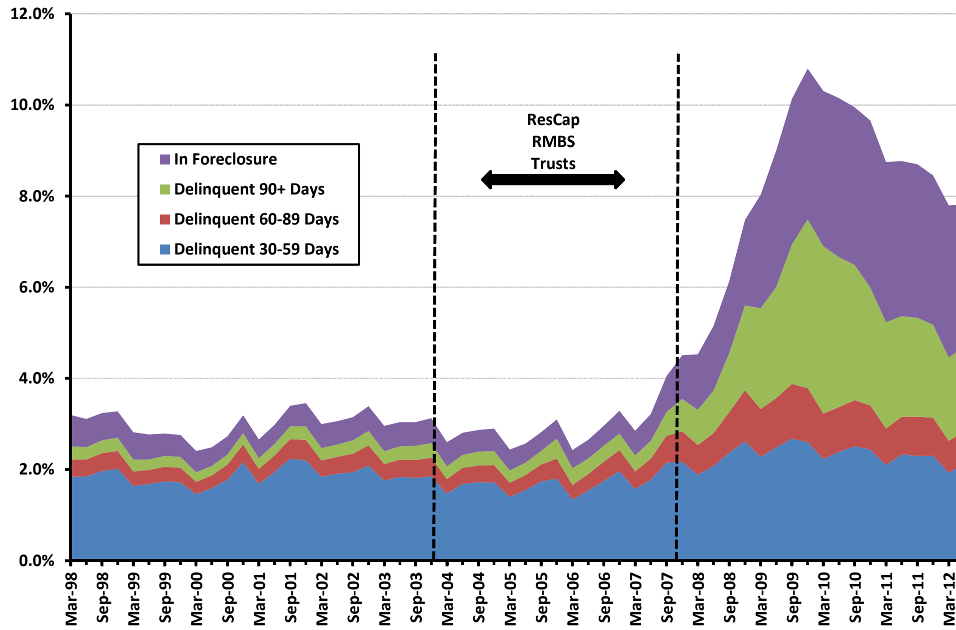

Source: U.S. Bureau of Labor Statistics, series LNS14000000.

24. The distress in the U.S. housing market set in very soon after the ResCap Trusts were formed. For prime loans, the incidence of foreclosure more than tripled by 2009 (Figure 4). For subprime, *over 40%* of loans were delinquent or in foreclosure by late 2009 (Figure 5). Foreclosing and

liquidating those loans and selling the properties in a deeply distressed market led to massive losses throughout the housing finance sector.

**Figure 4**

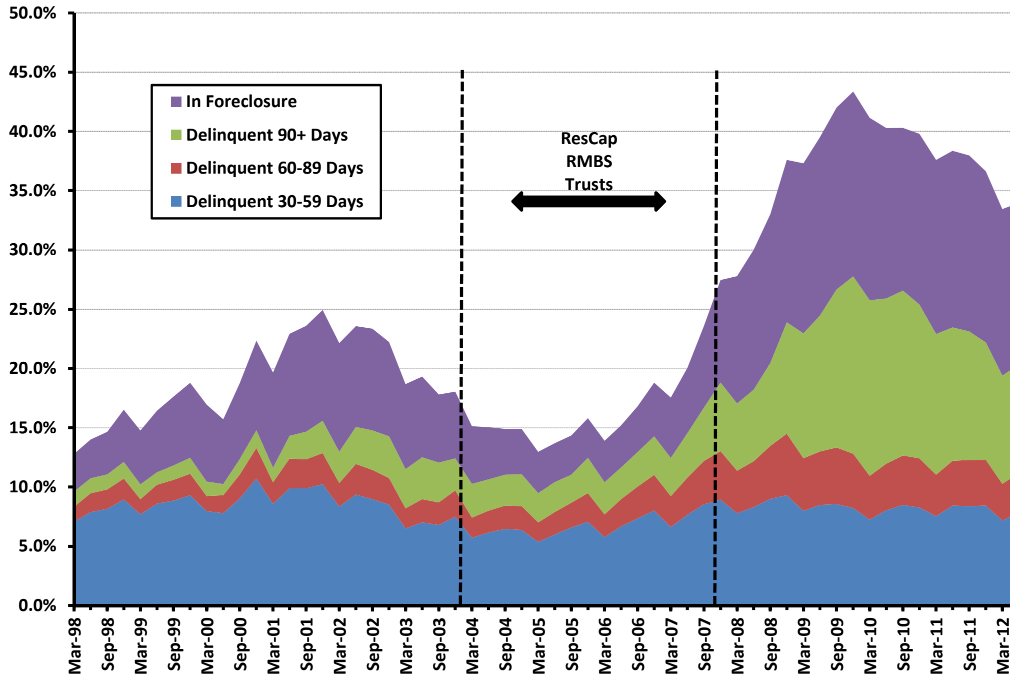
**U.S. Prime Mortgage Delinquency and Foreclosure Rates**




Source: Mortgage Bankers Association, National Delinquency Survey.

**Figure 5**

**U.S. Subprime Delinquency and Foreclosure Rates**




Source: Mortgage Bankers Association, National Delinquency Survey.

25. The performance of the ResCap Trusts suffered as a result of this collapse.[12] As discussed below, the loans at issue in this case with material underwriting defects represent only a portion of the loans in the Trusts, and only a portion of the losses on these loans appear to have been caused by underwriting defects. The economy-wide negative factors that caused losses in RMBS investments would have been present regardless of underwriting defects in the loans held by the ResCap Trusts. Lower home prices and household income, and higher unemployment, would have led to high delinquency and foreclosure rates and high loss severity rates for ResCap even if the loans had no underwriting defects at all. Underwriting tools designed to protect lenders from *individualized* loan

[12] The performance of the ResCap Trusts was an effect, not the cause, of this collapse. From 2004 through 2007, a total of $10.8 trillion in 1-4 family residential mortgage loans were issued in the United States. *See* Mortgage Bankers Association, Origination Estimates, http://www.mortgagebankers.org/files/Research/HistoricalWAS/HistoricalMortgageOriginationEstimates022311.xls. The roughly $221 billion securitized by the ResCap Trusts represent only about 2% of that amount.

credit risk would not have protected lenders from the *systemic* risk that affected the entire housing sector.

## 3. The Available Evidence Suggests that Underwriting Defects Caused Additional Collateral Losses of About $3.8 Billion to the ResCap Trusts

### 3.1. Conceptual Framework for Determining Losses Caused by Underwriting Defects

26. The economic analysis of damages is shaped in part by the legal framework governing damages in a particular setting. In this case, I have been asked to estimate the economic losses incurred by the ResCap Trusts that were caused by underwriting defects.

27. This legal approach dovetails with the typical economic approach to damages, which involves isolating the economic effects of an underwriting defect or R&W breach from other factors which affect economic results. In the case of the housing industry, one recent study concluded that a significant fraction of losses on mortgage assets resulted from macroeconomic factors, particularly declining home prices, rather than from less stringent underwriting practices (let alone underwriting defects which might legally constitute R&W breaches).[13] Another study found that house prices had declined in many areas of the country by 2007 and this deterioration, along with increases in unemployment, were large contributors to the mortgage crisis.[14] The Debtors' expert, Mr. Sillman, acknowledges that the "worst recession since the Great Depression" was accompanied by "growing unemployment," "loss of income," and "plummeting housing prices" which have had "a profoundly negative impact on the performance of and resulting losses on all mortgage securitizations."[15]

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[13] See, e.g., Dennis R. Capozza and Robert Van Order, "The Great Surge in Mortgage Defaults 2006-2009: The Comparative Roles of Economic Conditions, Underwriting, and Moral Hazard, working paper, June 2010 (finding a roughly 50/50 split between underwriting and economic conditions as factors causing the surge in foreclosures).
[14] Christopher Mayer, Karen Pence and Shane M. Sherlund, "The Rise in Mortgage Defaults," Journal of Economic Perspectives, Winter 2009, p. 44.
[15] Declaration of Frank Sillman In Support Of Debtors' Motion Pursuant To Fed. R. Bankr. P. 9019 For Approval Of The Rmbs Trust Settlement Agreements, June 11, 2012 ("Sillman Declaration"), ¶19. Mr. Sillman testified that the recession and plummeting home prices are factors in rising mortgage delinquencies and an increase in the

28. Measuring damages based on the incremental losses caused by underwriting defects is also consistent conceptually with the existence of loan substitution as a remedy for breaches. I am advised by counsel that the governing agreements generally permit substitution when a particular loan sold to a Trust contains a material and adverse breach of stated representations and warranties.[16] Suppose that the loan servicer examined each loan carefully and quickly identified all loans with R&W breaches, and the seller quickly agreed to replace all such loans with substitute loans. In such a scenario, and with the declining market conditions that actually occurred, the Trust would still have incurred substantial losses on a portfolio free of R&W breaches. And, if the substitutions had been made, there would have been no further repurchase rights or compensation to be paid to the Trusts following the subsequent losses on conforming loans. An economic approach to the measurement of losses in this case thus estimates the economic position of the Trusts had all of the defective loans been substituted with conforming loans from the very beginning.[17]

29. I use three main conceptual steps to estimate the economic losses on loans caused by underwriting defects. The first step is to measure the losses on loans that could be related to underwriting defects. The second step is to estimate the percentage of those losses that are associated with loans that have material underwriting defects. The final step is to deduct from the total losses on loans with material underwriting defects the portion of those losses that would have occurred had the

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severity of losses incurred by investors upon foreclosure. Deposition of Frank Sillman, November 20, 2012, pp. 156-59.

[16] See, e.g., Prospectus Supplement for RAMP Series 2006-RS2, p. S-10; GMACM Series 2006-AR1, p. S-41. Contractually, the Seller's substitution option was limited to breaches detected within a specified period of time (e.g., 2 years in the case of the RAMP 2006-RS2 securitization) following formation of the Trust. I understand this practice arose from tax considerations.

[17] The original intent was not to *avoid* investing in the Debtor's mortgage loans, but rather to invest in a pool of non-breaching mortgage loans. It is, of course, too late today to provide the Trusts with substitute loans in 2006 which would then suffer losses. The point here is not that the Debtors have any particular contractual right to provide substitute loans today, but rather that the substitute loan option is consistent with my focus on incremental losses caused by underwriting defects.

loans not had underwriting defects. The amount subtracted reflects the losses that "good" loans would have sustained because of deterioration in general economic conditions and the drop in housing prices.

30. Determining the amount of losses is generally a straightforward exercise for loans which have completed the foreclosure process or have otherwise been liquidated. In other cases, however, a delinquent loan may not have completed the foreclosure process, or may be delinquent and likely to result in a loss, but not yet in the foreclosure process. A loan may even be current, yet at some point in the future become seriously delinquent (although, as I will explain, the available evidence does not support a link between underwriting defects and losses that occur long after issuance). For loans that have "defaulted" – i.e., become seriously delinquent or entered the foreclosure process – but have not yet been fully resolved as of a particular date, some estimation of loan losses must be made.

31. The second issue is determining which loans (with losses) have material underwriting defects. A review of actual loan files is a standard approach in the RMBS arena to help make this determination. I recognize that a determination of whether or not there were defects in the underwriting is not equivalent to identifying breaches of representations and warranties in the governing agreements. A defect may not be a breach if there was no R&W that applied to the defect in question, or arguably if there was sufficient disclosure warning of the possibility of defects. For my work, I focus on material defects, which counsel has instructed me to use as a rough proxy for material R&W breaches, recognizing that this could lead to an overstatement, or conceivably an understatement, of breach-related losses. I employ statistical analysis of the loan review data in conjunction with pay history information for sample loans to analyze the extent of linkage between defective underwriting and the likelihood of default. The information from the loan sample is then projected to the universe of all ResCap Trusts.

32. Finally, once the amount of losses on loans with materially defective underwriting has been determined, I reduce that sum by the amount of losses that would have been incurred on those loans had they been non-defective. I do this by reviewing the financial performance of non-defective loans in addition to defective loans.

### 3.2. Review of loan files

33. Approximately 1.6 million home mortgage loans were included in the pools sold to the ResCap Trusts. At my direction, a sample of 1,500 of those loans was drawn at random for "re-underwriting." This is a standard procedure in which professional loan reviewers perform an after-the-fact evaluation of the original underwriting to assess compliance with the applicable loan program guidelines and other relevant criteria. Copies of the 1,500 loan origination files were requested and were provided to an experienced re-underwriting firm, Analytic Focus, working under the direction of Mr. J. F. Morrow.

34. The re-underwriters determined that 1,089 loan files had sufficient information to enable the loans to be re-underwritten.[18] Each of the 1,089 re-underwritten loans received an overall assessment from the re-underwriters as being either "investment grade without defects," "investment grade with non-material defects," or "materially defective."[19]

35. The re-underwriters determined that 28.7% of the sample loans (by loan count) and 26.7% of the sample loans (by value) that they were able to evaluate contained what they concluded were material underwriting defects. These percentages provide some, but not all of the information

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[18] I understand that re-underwriting was not possible when the applicable loan program guidelines were missing or missing documentation in the loan files precluded meaningful review.

[19] For details, see Expert Report of J F Morrow, which I understand is being submitted along with this expert report. As noted above, materially defective underwriting may not constitute an R&W breach. I understand that the contractual documents governing the loans in the ResCap Trusts often do not contain a representation that the loans were originated in conformance with underwriting guidelines, and, in the other direction, some R&W breaches (e.g., flawed appraisals that lead to misstated home values) might successfully be argued by the Trusts to constitute material R&W breaches yet would not be included as "materially defective" underwriting as determined by the re-underwriting process.

that must be considered to arrive at a measure of losses related to underwriting defects. To use the re-underwriting sample to estimate such losses, it is necessary to combine those results with data on actual payment histories and losses. I was able to obtain this information for 819 of the re-underwritten loans from CoreLogic, a third-party vendor of loan servicing data.

36. I investigated whether my analysis may be biased due to reviewing 1,089 loan files instead of 1,500. That is, 411 loan files had to be excluded. I have not identified a basis for concern. The random sample of 1,500 loans included loans from 328 separate ResCap trusts. The re-underwriting results include loans from 304 of those trusts. All of the loan product types, or "shelves," (e.g., the Alt-A RALI, the subprime RASC) in the loan sample are represented in the re-underwriting results. In addition, there is no indication of a bias from missing trusts. For example, the sample of 1,500 included trusts 2005-RS1 through 2005-RS9. Re-underwriting was possible for loans in seven of these nine trusts, and there is no reason to suspect the seven available trusts are not representative of the missing ones.[20]

37. The re-underwriters have informed me that 92 of the 411 loans (or 22%) were not analyzed because of missing underwriting guidelines. Missing guidelines have no connection to whether or not a loan was properly underwritten and do not cause bias. I also understand that the other loans that were not re-underwritten were omitted due to incomplete loan files and missing documentation. In particular, I examined whether these incomplete files might be due to a disproportionately high incidence of default, on the conjecture that documents "went missing" in the course of processing a foreclosure or similar event. The evidence shows the opposite, however. If anything, the files that were

[20] RAMP RS Series (ARM &FRM), Collateral Summary by Issue Year. This report and similar reports for the other shelves are available on the ResCap Vision website. See https://investor.gmacrfc.com/vision/default.aspx.

not re-underwritten have a lower incidence of foreclosure.[21] They appear to be a random subset of the 1,500 loans, which again indicates no bias.

38. I also investigated whether there may be a bias from having payment and loss data for 819 loans instead of 1,089. This lack of coverage arose principally because the CoreLogic data did not include information for the sample loans in Rule 144A trusts and other securities that are not publicly traded. Compared to the sample of 819, the loans with missing CoreLogic data are disproportionately second liens such as home equity lines of credit. However, the preponderance of second liens in the excluded loans does not have a significant effect on my conclusions. The details of my analysis on this point are presented in connection with the results shown in Table 2 below.

39. I conducted another check of the reliability of the sample by comparing data from the loan files to the loan issuance data in the ResCap Vision database (the “loan tape”). This comparison included the FICO credit score, LTV, CLTV (i.e., combined loan to value, which includes all liens on a property), and debt-to-income ratio (DTI). I have been informed by counsel that a loan may be considered materially defective if there is a discrepancy between the loan file and the loan tape and 1) the discrepancy is against the interest of the investor, e.g., a loan tape LTV that is below the loan file LTV, and 2) there is a representation and warranty provision in the deal that includes that type of discrepancy.

40. My conclusion is that there is no material difference between the loan file data and the loan tape data. Out of 278 cases where it was possible to compare FICO scores, there were 11 instances where the loan tape value was higher than the loan file and the underwriting was not already categorized as defective. I have been informed by counsel that there are very few instances of an R&W for FICO scores. I view LTV and CLTV together, and find a single instance in 639 cases where the loan

[21] For the 819 loans that were re-underwritten and could be matched to CoreLogic data, 30.5% ultimately defaulted. In contrast, there were 194 loans that were not suitable for re-underwriting but could be located in the CoreLogic data. The default rate for this group was lower, at 26.8%.

tape LTV was below the loan file LTV, the CLTVs failed to match, and the underwriting was not already categorized as defective by the re-underwriters. For DTI, there is a single instance where the loan tape DTI was below the loan file DTI, there was an R&W for DTI, and the underwriting was not already categorized as defective.

### 3.3. Linking Loan Defaults to Underwriting Defects

41. There is an important time dimension to the causal effect of underwriting defects on losses. Fannie Mae and Freddie Mac historically focused their analysis of potential material R&W breaches on early payment defaults – typically those occurring up to two years after origination.[22] Similarly, Moody's has recommended reviewing the underwriting for a loan only if it becomes severely delinquent within the first 18 months.[23] The Department of Housing and Urban Development requires a quality control review on mortgage loans that become 60 days past due within the first six payments.[24]

42. The logic for focusing on these "early payment defaults" is that fraud often is reflected in payment defaults at an early stage, and that circumstances other than original underwriting defects that can cause or largely cause a borrower's delinquency, such as job loss, illness, death, or unexpected

[22] A report cited by the Debtors' expert, Mr. Sillman, explains: "Freddie Mac management has advised FHFA-OIG that they also believe that higher rates of loan defaults in later years do not necessarily equate to higher defect rates. In their view loans that had demonstrated consistent payment history over the first two years following origination and then defaulted in later years i.e., years three through five after origination likely did so for reason such as loss of employment which is unrelated to representations and warranties defect. Based on these assumptions Freddie Mac does not review most loans that go into foreclosure more than two years after origination." Federal Housing Finance Agency Office of Inspector General, Evaluation of the Federal Housing Finance Agency's Oversight of Freddie Macs' Repurchase Settlement with Bank of America, Evaluation Report: EVL-2011-006, September 27, 2011, RC-9019_00003942, p. 18. Mr. Sillman contends that the GSEs' focus on early payment defaults was an unwise strategy, but he provides no independent empirical support for extending the horizon indefinitely, as suggested by his computations. Declaration of Frank Sillman In Support Of Debtors' Motion Pursuant To Fed. R. Bankr. P. 9019 For Approval Of The RMBS Trust Settlement Agreements, June 11, 2012 ("Sillman Declaration"), ¶¶52-53.
[23] Moody's Criteria for Evaluating Representations and Warranties in U.S. Residential Mortgage Backed Securitizations (RMBS)," Moody's Investor Service, November 24, 2008. "Severely delinquent" is defined by Moody's as: (a) 120+ days delinquent, in foreclosure, real estate owned (REO), or (b) the loan was modified or had a short payoff and the lender experiences a loss, or (c) the borrower files for bankruptcy.
[24] U.S. Department of Housing and Urban Development, "Quality Control Requirements for Direct Endorsement Lenders," Mortgagee Letter 2011-02, http://portal.hud.gov/hudportal/documents/huddoc?id=11-02ml.pdf. (HUD also requires a routine quality control plan.)

inability to refinance loans due to the housing crisis, accumulate over time, while the underwriting status of a loan is static as of the loan origination date. Thus, the farther out in time since the origination of a portfolio of loans, the less likely it is that newly arising defaults and losses can be linked causally to underwriting defects rather than to other factors.

43. I use the statistical technique of "regression analysis" to investigate the horizon over which material underwriting defects might be demonstrably linked to the risk of default.[25] My approach frames this question in the following way: given that a loan has not defaulted as of a given month, does the presence of a material underwriting defect predict that the loan is likely to default in the future? For example, consider a loan in the first month after the trust issues. Does a defect help predict a default looking forward at that point? If so, advance to the next month, and ask the same question but limit attention to the loans that still have good payment histories and have not yet defaulted. If defects always matter, then regardless of how far in the future one goes, the presence of an underwriting defect should help predict default for the loans that have not defaulted up to that point. On the other hand, if the effect of a defect on default is relevant only in an initial window after issuance, then there is some horizon beyond which the presence of a defect fails to predict future defaults. My regression analysis identifies this horizon empirically using the 819 sample loans with available payment histories.

44. Specifically, I perform a series of regression analyses in which the horizon under examination is incremented each time. The "dependent" variable is a binary indicator to represent whether a loan ever defaulted after the specified horizon, where a value of 1 indicates default and a value of zero indicates no default. I define default for this purpose as the first month in which, according to CoreLogic, a loan either enters foreclosure, becomes real-estate owned ("REO"), or is last recorded as current if its ultimate status is liquidated with a loss. I test for whether the dependent

[25] Regression analysis is widely used in legal proceedings. See Reference Manual on Scientific Evidence, Federal Judicial Center, 2000, pp. 179–227.

variable (i.e., the indicator that a loan defaulted after the horizon being tested) is explained statistically by an independent (explanatory) variable that is an indicator for whether the particular loan had materially defective underwriting (coded as the value 1) or not (coded as zero). My analysis consists of estimating 19 separate regression equations spanning early payment default horizons ranging from 18 months after issuance to 36 months after issuance.[26]

45. I estimate the regression equations using two alternative statistical techniques, ordinary least squares and logit.[27] The results show that the presence of material underwriting defects reliably predict heightened probability of defaults looking forward from month 18, but the effect diminishes fairly steadily as the horizon lengthens. By month 28, the presence of material underwriting defects no longer has any statistically significant predictive power over the likelihood of defaults, and the results thereafter consistently show no significant effect of underwriting defects on the probability of default. The results of these horizon regressions are presented in Table 1.

[26] This range includes the horizons typically discussed in the industry sources I have reviewed.

[27] Logit regression is a more specialized technique to model binary outcomes such as default/no default. William D. Greene, *Econometric Analysis*, 2nd edition, 1993, p. 643. Ordinary least squares with a binary dependent variable is known to display heteroscedastic errors. Greene, p. 637. For this reason, I base statistical inference in the ordinary least squares models on t-statistics that use “robust” standard errors that correct for heteroscedasticity. Greene, p. 391.

**Table 1**

**Regression Analysis: Effect of Material Underwriting Defects on Defaults**

| | | Ordinary Least Squares Estimation | | | Logit Estimation | |
|---|---|---|---|---|---|---|
| **Horizon Month** | **Number of Observations** | **Estimated Effect** | **T-Statistic** | **Statistically Significant?** | **T-Statistic** | **Statistically Significant?** |
| 18 | 548 | 0.1095 | 2.42 | Yes | 2.47 | Yes |
| 19 | 538 | 0.1018 | 2.22 | Yes | 2.27 | Yes |
| 20 | 523 | 0.0891 | 1.92 | No | 1.96 | Yes |
| 21 | 509 | 0.0812 | 1.74 | No | 1.78 | No |
| 22 | 493 | 0.0860 | 1.80 | No | 1.85 | No |
| 23 | 477 | 0.0949 | 1.95 | No | 2.00 | Yes |
| 24 | 453 | 0.1255 | 2.50 | Yes | 2.58 | Yes |
| 25 | 428 | 0.1229 | 2.36 | Yes | 2.43 | Yes |
| 26 | 407 | 0.1239 | 2.30 | Yes | 2.36 | Yes |
| 27 | 396 | 0.1206 | 2.20 | Yes | 2.27 | Yes |
| 28 | 384 | 0.0845 | 1.52 | No | 1.56 | No |
| 29 | 377 | 0.0740 | 1.33 | No | 1.36 | No |
| 30 | 365 | 0.0605 | 1.07 | No | 1.10 | No |
| 31 | 356 | 0.0686 | 1.21 | No | 1.24 | No |
| 32 | 346 | 0.0332 | 0.58 | No | 0.59 | No |
| 33 | 337 | 0.0430 | 0.75 | No | 0.76 | No |
| 34 | 330 | 0.0487 | 0.85 | No | 0.87 | No |
| 35 | 322 | 0.0532 | 0.92 | No | 0.94 | No |
| 36 | 313 | 0.0753 | 1.27 | No | 1.32 | No |

Notes:

Ordinary least squares estimated effect is regression coefficient on the indicator variable for presence of an underwriting defect. T-statistics calculated using heteroscedasticity-robust standard errors.

Logit t-statistic is asymptotic t-statistic for defect indicator variable. Point estimate of coefficient on defect indicator not shown.

46. I also perform a regression analysis to test whether defects help explain early defaults, i.e., loans that default no later than month 27. The results using both ordinary least squares and logit show a statistically significant association between underwriting defects and the probability of default during this initial window.[28]

[28] The robust t-statistic from the ordinary least squares regression is 2.75 and the asymptotic t-statistic from the logit regression is 2.98. Both indicate statistical significance because they are above the "critical" value of 1.96.

47. I conclude that the best available statistical evidence shows that the presence of material underwriting defects leads to a significantly increased likelihood of default among the ResCap Trust mortgage loans for the first 27 months after the Trusts were formed, and not thereafter.

### 3.4. Loan losses resulting from underwriting defects

48. My computation of losses due to underwriting defects is presented in Table 2. The table shows a series of computations based on the 27 month horizon for each Trust that, as I have described, is the best statistical indication of the time period during which material underwriting defects may be linked to an increased likelihood of default. Applying this 27-month finding, the incremental losses indicated by a methodology I will describe in detail (which takes account of the incidence of underwriting defects and calculates the losses that would have occurred in the absence of any defects) are approximately $3.8 billion. In addition, I have been asked by counsel to estimate the incremental losses caused by underwriting defects if certain Trusts are excluded by allowing for a six year statute of limitations period, adjusted for tolling agreements that in some cases lengthen this period. My incremental loss methodology shows that losses due to underwriting defects are $2.7 billion if only tolling agreements with Trustees (as opposed to the investors) are taken into account and, alternatively, $3.3 billion if all tolling agreements (whether with Trustees or investors) are taken into account. I provide an explanation for each detailed calculation following the table.

**Table 2**

**Trust Losses Due to Material Underwriting Defects**
**Over 27-Month Horizon Indicated by Regression Analysis**
**($ Billions)**

| | | |
|---|---|---|
| | Losses | |
| 1 | Recognized losses at horizon date: | $5.6 |
| | Projected additional losses as of horizon date: | |
| 2 | Stock of delinquent loans | $18.0 |
| 3 | Average severity | 55.6% |
| 4 | Additional losses on delinquent loans (2 x 3) | $10.0 |
| 5 | Estimated total losses on loans defaulting by horizon date (1 + 4) | $15.6 |
| 6 | Add estimated 20.5% to account for trust data not reported in Vision (10.5% x 1.946) | $3.2 |
| 7 | Total losses on loans defaulting by horizon date (5 + 6) | $18.8 |
| 8 | % of losses on loans with material defects | 40.4% |
| **9** | **Losses on loans with defects** (7 x 8) | **$7.6** |
| 10 | Default rate on loans without causative defects | 10.7% |
| 11 | Default rate on loans with causative defects | 19.4% |
| 12 | % of causative defective losses which would have occurred without defects (10 ÷ 11) | 55.2% |
| 13 | Severity adjustment factor | 91.2% |
| 14 | Loss that would have occurred anyway (9 x 12 x 13) | $3.8 |
| 15 | **Excess losses on defect loans** (9 - 14) **(Estimated liability with no statute of limitations adjustment)** | **$3.8** |
| | Liability after alternative SOL adjustments: | |
| 16 | **A. Exclude all pre-May 2006 deals but allow for all tolling agreements** | -$0.5 |
| **17** | | **$3.3** |
| 18 | **B. Exclude all pre-May 2006 deals but allow for trustee tolling agreements** | -$1.0 |
| **19** | | **$2.7** |

49. **Line 1—Actual losses recognized by month 27**. For most of the ResCap Trusts, the ResCap Vision database compiles cumulative losses by Trust and month after issuance. For each Trust, I selected the cumulative losses as of month 27. Line 1 shows the total across all Trusts for that horizon.

50. **Line 2—Seriously delinquent loan balances as of month 27**. The ResCap Vision database compiles the loan balances that are 90 or more days delinquent, in foreclosure, or real-estate owned ("REO") by Trust and month after issuance. For each Trust, I selected the sum of these categories (the "seriously delinquent balances") as of month 27. I make the simplifying assumption for

this purpose that all of the seriously delinquent balances as of month 27 will generate losses for the Trusts.

51. **Line 3—Average severity**. The ResCap Vision database compiles the average severity rate by Trust and month after issuance. Severity refers to the amount of losses as a percentage of the outstanding balances on the loans that gave rise to the losses. I use the severity as of the horizon month in conjunction with the seriously delinquent balances to estimate losses. Line 3 reports the weighted average severity across the Trusts at month 27, where the weights are the amount of seriously delinquent balances by Trust.

52. **Line 4—Additional losses from seriously delinquent loans**. Calculated as line 2 times line 3. These losses will be in addition to the losses already recognized by the Trusts by the horizon date.

53. **Line 5—Losses at month 27**. Calculated as line 1 plus line 4.

54. **Line 6—Factor for additional losses**. The Vision data represent approximately $200 billion in original face amount of loans. This is smaller than the $220.987 billion in total face amount of the ResCap trusts due to a number of private deals not included in the Vision database.[29] There are two components to an appropriate imputation for the missing data. First, the additional face amount is approximately 10.5% of the total in Vision. Second, the missing data are mainly second liens that have higher average severity than the deals in Vision. I estimate that this severity is approximately 94.6% higher, which leads to an adjustment factor equal to 20.5% (10.5% multiplied by 1.946).[30] The loss estimate is increased by this factor to estimate the total loss.

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[29] From spreadsheet RC-9019_00000002.xls, tab "Data," column "Orig Deal Balance."

[30] Calculated as weighted average severity for 2nd lien ResCap Trusts divided by weighted average severity for first lien ResCap Trusts as given by RC-9019_00000002.xls. Severities weighted by original trust balances. An alternative calculation based on the Vision data at the 27 month horizon yields a somewhat lower adjustment factor, which would lower the loss estimate.

55. **Line 7—Total losses as of month 27**. Calculated as line 5 plus line 6.

56. **Line 8—Percent of losses associated with loans with defects**. Derived from the 819 re-underwritten loans and the CoreLogic loan-level payment histories and loss data. For loans that default by the relevant horizon, I calculate the losses on sample loans with underwriting defects and total losses on the sample loans that default within 27 months. The ratio is the percentage of dollar losses on loans that default within 27 months which are associated with materially defective loan underwriting.

57. **Line 9—ResCap losses on loans with material underwriting defects**. Line 7 multiplied by line 8. This estimate is for the ResCap Trusts.

58. **Line 10—Default rate on loans without material defects**. Derived from the 819 re-underwritten loans. This is the ratio of the amount of defaulting principal by month 27 (for loans without defects) to the total original principal (for loans without defects).

59. **Line 11—Default rate on loans with material defects**. Derived from the 819 re-underwritten loans. This is the ratio of the amount of defaulting principal by month 27 (for loans with defects) to the total original principal (for loans with defects).

60. **Line 12—Percent of losses that would have occurred in the absence of defects**. Calculated as line 10 divided by line 11.

61. **Line 13—Severity adjustment**. Derived from the 819 re-underwritten loans. This sets the severity of the but-for losses to reflect the loans without defects instead of loans with defects. The sample shows that for loans with material underwriting defects, the losses for loans defaulting by month 27 amounted to 50.8% of the corresponding original balances. The figure was 46.4% for loans without defects that defaulted by month 27. Loans without defects, which are the relevant basis for but-for losses, are estimated to have severity that is 91.2% of the severity (46.4 divided by 50.8) for defective

loans. This adjustment reduces the calculated amount of but-for losses and increases the calculated put-back liability.

62. **Line 14—ResCap losses that would have occurred anyway**. Calculated as line 9 times line 12 times line 13. This estimate is for the ResCap Trusts.

63. **Line 15—Excess ResCap losses attributable to defective underwriting**. Line 9 minus line 14. The losses due to defective underwriting equal the total losses as of the horizon date minus the losses that would have occurred by the horizon date in the absence of underwriting defects.

64. **Line 16—Statute of limitations adjustment for <u>all</u> deals with tolling agreements**. I have been asked by counsel to analyze the effect of a six year statute of limitations adjustment on my analysis, taking account of all tolling agreements.[31] This adjustment, with certain exceptions, would exclude all Trusts that were created before May 14, 2006. For deals with tolling agreements, the cut-off date is earlier by the number of days in the tolling agreement (for agreements that ended before May 14, 2012) or the number of days between the date of the tolling agreement and May 14, 2012 (for agreements that extend beyond May 14, 2012). In cases where a deal had multiple tolling agreements with different dates, I used the date that resulting in the longest extension.[32] Line 16 shows the effect of this adjustment on the calculated losses due to underwriting defects.

65. **Line 17—Losses net of statute of limitations adjustment for all deals with tolling agreements**. Line 15 plus line 16.

66. **Line 18—Statute of limitations adjustment for deals with tolling agreements entered into <u>by trustees</u>**. I have been asked by counsel to analyze the effect of a six year statute of limitations

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[31] I understand from counsel that, shortly before the commencement of this bankruptcy (in most instances less than a year before that date), the Debtors entered into a small number of tolling agreements with RMBS Trustees and additional tolling agreements with certain investors. I assumed for the computation described here that all of these tolling agreements in fact toll the statute of limitations.

[32] Several trusts had two tolling agreements, one ending in 2010 and a later one ending in 2012. In the case I set the extension to the total number of days tolled before May 14, 2012.

adjustment on my analysis, taking account all tolling agreements entered into by trustees.[33] This adjustment, with certain exceptions, would exclude all Trusts that were created before May 14, 2006. For deals with tolling agreements, the cut-off date is earlier by the number of days in the tolling agreement (for agreements that ended before May 14, 2012) or the number of days between the date of the tolling agreement and May 14, 2012 (for agreements that extend beyond May 14, 2012). In cases where a deal had multiple tolling agreements with different dates, I used the date that resulting in the longest extension. Line 18 shows the effect of this adjustment on the calculated losses due to underwriting defects.

67. **Line 19—Losses net of statute of limitations adjustment for deals with tolling agreements with trustees**. Line 15 plus line 18.

68. Table 2 is based on an economic model of losses caused by underwriting defects. Consideration of losses which would have occurred even without any underwriting defects, and the horizon over which there is a statistically significant connection between underwriting defects and increased likelihood of defaults, permits the measurement of losses resulting specifically from underwriting defects. This contrasts with a more mechanical approach that ignores these significant causation issues. For example, assuming that "lifetime" loan losses will reach $45.2 billion – the mid-point of the range estimated by Mr. Sillman[34] – the re-underwriting results imply that total losses on loans with material underwriting defects will total $16.5 billion, if no account is taken of the loss causation issues or of possible statute of limitations or election of remedies defenses.[35] As I have shown,

[33] For this computation, in other words, I adjust only for the four tolling agreements entered between the Debtors and the Trustees, and not also the Debtors' agreements with investors.

[34] RC-9019_00054000.

[35] The sample of 819 re-underwritten loans with matching CoreLogic pay history data indicates that the defective loans account for 36.6% of losses to date among the sample loans, implying that 36.6% of the $45.2 billion in overall lifetime losses will occur on loans with material underwriting defects. This percentage differs from Table 2, line 8 because, as a lifetime measure, it is calculated using defaults over all horizons, not just by month 27. Giving effect to a six year statute of limitations period and all tolling agreements lowers the result to $12.1 billion. A similar calculation using only tolling agreements with trustees yields $9.7 billion. Taking account of an election of

however, much of this amount is due to the general distress in the housing market and the U.S. economy.

69. I also use the framework of Table 2 to investigate whether using only the 819 re-underwritten loans that could be matched to CoreLogic payment history data, instead of the full sample of 1,089 re-underwritten loans, leads to any bias in my results. I find no bias, as I now explain.

70. I "reweight" the sample of 819 so that it reasonably matched the full sample of 1,089. To explain, because a disproportionate number of the loans missing from CoreLogic were second liens, I took explicit account of this factor. Specifically, I grouped the sample of 819 into first liens and second liens. The data in the re-underwriting files allowed me to calculate the aggregate loan amounts by lien type, and also the loan amounts by lien type for the sample of 819. I then computed the ratio of the aggregate loan amount by lien type to the corresponding amount for the 819 sample. These ratios are the reweighting factors. Each loan amount and each loss amount in CoreLogic is multiplied by the factor that corresponds to the type of lien.

71. On the assumption that payment and loss experience for the first liens in the 819 loans is representative for the full underwriting sample of first liens, and similarly for the second liens, my procedure should calibrate my loss analysis using the payment characteristics for the full sample. I used this adjusted data to recompute the parameters in Table 2, i.e., lines 8, 10, 11, and 13, and to recompute losses. The results showed losses of $3.3 billion, which is a slight decline relative to Table 2. This result indicates that excess loss analysis reported in Table 2 is not biased downward due to the missing pay histories, but might be slightly above the amount which would have been reported had I had access to pay history data spanning all of the ResCap Trusts.

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remedies defense, described further below, but not a statute of limitations defense, implies losses of approximately $6 billion.

### 3.5. Adjustments for election of remedies defense

72. I have been asked by counsel to adjust the analysis in Table 2 in light of a recent decision in a case in Minnesota.[36] Specifically, I have been asked to assume that a put-back claim would not be allowed for a mortgage loan that has already been liquidated but that, instead, a put-back right would only exist for mortgages that have not yet been liquidated.[37] I have been instructed to carry out this adjustment without any offset for statute of limitations considerations. I will refer to this approach as the "election of remedies" defense.

73. The main additional question for this approach is to estimate what fraction of the loans that were already in default by month 27 have not yet been liquidated. This fraction will be used to scale the results in Table 2 down to the level implied by the election of remedies. This analysis can be carried out using the CoreLogic sample of payment histories alone because the re-underwriting results are not relevant for analyzing the incidence of mortgage liquidation.

74. To be consistent with Table 2, I limit the CoreLogic sample to loans that defaulted by month 27. This yielded a sample of 3,383 loan pay histories. The CoreLogic data included the current (3rd quarter 2012) payment status of those loans (which ranges from liquidated with no loss to overdue to in-foreclosure), the original principal balance, the remaining principal balance, and losses incurred.

75. The CoreLogic data indicate that even if all of these remaining principal balances (including loans with a 2012 payment status of "current") plus any accrued losses (due, for example, to loan modifications) were considered to constitute the put-back liability, the resulting amount would be unlikely to exceed approximately $500 million. This conclusion is based my estimate that, for the loans that defaulted by month 27, the remaining principal in 2012 plus accrued losses totals no more than

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[36] MASTR Asset Backed Securities Trust 2006-HE3 v. WMC Mortgage Corporation, 2012 U.S. Dist. LEXIS 142579 (D. Minn, 2012).

[37] Mortgages loans can be liquidated for several reasons. The underlying property may be sold or refinanced, so that the original mortgage is paid off. A loan, such as a home equity loan, may be paid off or a mortgage may be fully pre-paid. If there is a default, the mortgage may be liquidated with a loss. In my analysis, a mortgage that is in foreclosure or is REO is not considered to have been liquidated.

6.2% of the original balances. Applying 6.2% to my estimate of $7.6 billion in losses for loans with defects (Table 2, line 9) yields a possible election of remedies loss estimate of $474 million.

## 4. Mr. Sillman's Approach to Valuation of R&W Claims

76. The Debtor's expert, Frank Sillman, presented an analysis that he contends shows that, with respect to R&W breach claims, "the range of Potential Repurchase Requirements is $6.7 billion to $10.3 billion."[38] There are two main steps to Mr. Sillman's approach to determining "Potential Repurchase Requirements": his computation of "Estimated Lifetime Losses" that the Trusts will experience (about two-thirds of which he contends have already occurred and one-third will occur in the future), and his opinion regarding "the percentage of Estimated Lifetime Losses that the Debtors might agree to share with the Trusts ('Loss Share Rate') as a result of potential breaches of representations and warranties."[39]

77. However accurate he may be in tallying and projecting lifetime loan losses, the way Mr. Sillman approaches the second step – the fraction of those losses for which the ResCap Trusts would demand that the Debtors repurchase the loans and to which the Debtors "might agree" – is fundamentally flawed and unreliable. Unsurprisingly, because the Proposed Settlement reflects the fact that the Debtors *have already agreed to share* 19% of the loan losses projected by Mr. Sillman (or more precisely, have agreed to an allowed claim in that amount),[40] he assumes that the upper and lower bounds of the amount the Debtors might *hypothetically* agree to share would range from 15% to 21%, a range that tightly brackets the amount they have in fact agreed to share. Indeed, Mr. Sillman could have generated exactly the amount of the Proposed Settlement as his computed "Potential Repurchase Requirement" by simply using *the settlement's* agreed loss share rate as the basis for his own

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[38] Sillman Declaration, ¶68. Mr. Sillman subsequently submitted an additional analysis, according to which those numbers would be slightly lower. Supplemental Declaration of Frank Sillman, September 28, 2012.
[39] Sillman Declaration, ¶6; Sillman Supplemental Declaration, ¶17.
[40] Sillman Supplemental Declaration, p. 11.

computations instead of his assumed loss share rate. At his deposition, he acknowledged that he considered the amount of the settlement's proposed Agreed Claim when making his assumptions and, therefore, determining the reasonableness of the amount of the settlement itself.[41] But this is circular reasoning. His work sheds no light on the relevant economic issue – the actual losses that trusts and their RMBS investors incurred which are attributable to underwriting defects or to R&W breaches.

78. Mr. Sillman breaks his assumed "loss share rate" into a series of cumulative reductions to the estimated lifetime losses. First, he posits an "audit rate," which is the percentage of loans with losses that he assumes the Trusts would review for possible breaches. Second, he posits a "demand rate," which is the percentage of audited loans that he assumes the Trusts would demand that the Debtors repurchase. Third, he defines a "breach rate" (which might more accurately be labeled an *alleged* breach rate) equal to the audit rate multiplied by the demand rate. Fourth, he posits an "agree rate," which is the percentage of the claimed breaches that he believes the Debtors would agree to repurchase. His calculation may be summarized as an assumed breach rate multiplied by an assumed agree rate. But he provides no meaningful independent support for any of these assumed rates, each of which can easily be set to a level to generate any particular ultimate "loss share rate."

79. Mr. Sillman relies on the Debtors' higher than average "agree rate" with respect to repurchase demands arising from GSE (Fannie Mae and Freddie Mac) securitizations from the 2006-08 period.[42] But he acknowledges that the GSE securitizations upon which he relies are not representative of the PLS securitizations at issue here, because PLS securitizations have "less stringent representations and warranties" than GSE securitizations.[43] He therefore does not use the Debtors' reported GSE agree

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[41] Deposition of Frank Sillman, November 20, 2012 (Sillman Deposition), pp. 183-84.
[42] Sillman Declaration, ¶¶61-62. The same report he cites shows that a measure of the "demand rate" (demands as a percentage of loans sold) was significantly *lower* for the Debtors than for sellers to the GSEs overall. Sillman Declaration, Exhibit A. Mr. Sillman makes no mention of this fact in his Declaration.
[43] Sillman Declaration, ¶61. He explains, "For example, in many of Trusts' Governing Agreements there is little to no fraud representation or warranty language, and the requirements to conform to the Underwriting Guidelines are often qualified with 'generally' or 'substantially' in compliance with the Underwriting Guidelines, which are

rate of 67.56%, recognizing that it is unrepresentative and must be discounted to a lower figure.[44] Instead, he assumes the Debtors' agree rate should be in the range from 41% to 47%[45] —but his Declaration does not explain why this range is more appropriate than a substantially lower level, such as 31% or even 21%.

80. Experts frequently are asked to determine damages on the assumption that liability is found with respect to some act or conduct. Mr. Sillman states that he takes "no position on the ability of any party to prove a breach of representations and warranties under the Governing Agreements, and I assume for the purposes of this Declaration that such a showing can be made against Debtors."[46] But this is not a case in which the issue is whether a single contract was breached. Rather, one of the key questions is the number of loans at issue in the proposed settlement for which there are material underwriting defects or R&W breaches. However, Mr. Sillman does not rely on any review of these loans.[47] He therefore has no basis to determine the actual incidence of underwriting defects or R&W breaches as to these loans, much less to ascertain the amount of loan losses caused by these defects.

81. Mr. Sillman did review the Debtors' pre-petition PLS repurchase history, but he did not use it as a basis for either his breach rate or his agree rate, which together determine his loss share rate.[48] As his own tabulations make clear, that pre-petition experience supports a much lower breach rate and a much lower agree rate than the rates he uses in his opinion:

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both lower standards than are found in Fannie Mae or Freddie Mac agreements." *Id*. Indeed, a spreadsheet produced by his firm indicates, for example, that trusts holding 47.2% of the original loan balances had no "Underwriting rep" and trusts holding 78.8% of the original loan balances had no "Fraud rep." Fortace spreadsheet, RC-9019_00000002 (native).

[44] Sillman Declaration, ¶¶61-62.

[45] Sillman Declaration, ¶62.

[46] Sillman Declaration, ¶5.

[47] Sillman Deposition, pp. 125-28.

[48] Sillman Declaration, ¶8.

- Mr. Sillman assumes a breach rate of approximately 40%.[49] But the Debtors' actual repurchase history shows that aggregate repurchase demands to date total only $1.8 billion in original principal balances, compared to $45 billion in original principal for loans that have already been liquidated.[50] This indicates a "breach rate" of about 4% (1.8 divided by 45), not 40%.

- Similarly, Mr. Sillman assumes the Debtors would "agree" to 44% of loan repurchase demands.[51] But his tabulations show that for loans that have actually been put back, the Debtors actually agreed to repurchase only 18.6% of dollar balances of loans for which reviews were completed, not 44%.[52]

82. Mr. Sillman's comparison of the proposed Agreed Claim to the R&W settlements recently reached by Bank of America and Lehman Brothers is similarly flawed. Those settlements involved different parties, different loans, and different securitizations, which would need to be considered before using them as benchmarks. Mr. Sillman acknowledged that "[t]here may be variances in the breach rates based on different originators, based on, you know, certain factors" – but he made no attempt to analyze the impact of any such factors.[53] Nevertheless, if these two settlements are used as benchmarks, the Debtors' resulting repurchase liability would be a good deal less than $8.7 billion according to Mr. Sillman's own analysis.

83. Specifically, Mr. Sillman concludes that these settlements reflect "loss share rates" of 14% for Bank of America and 9% to 14% (with a midpoint of 11.5%) for Lehman Brothers.[54] Multiplying the $45.2 billion midpoint of Mr. Sillman's Total Estimated Lifetime Losses by his 14% Bank of America

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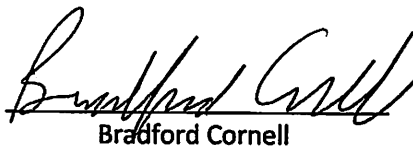
[49] Sillman Declaration, ¶57 (midpoint of 36% to 44% range).
[50] RC-9019_00000001.xls, RC-9019_00056670 (2).xls.
[51] Sillman Declaration, ¶62 (midpoint of 41% to 47% range).
[52] RC-9019_00056670 (2).xls.
[53] Sillman Deposition, p. 55.
[54] Sillman Declaration, ¶65.

loss share rate yields a "repurchase obligation" for the Debtors of only \$6.3 billion. Using the 11.5% midpoint Lehman Brothers loss share rate yields a repurchase obligation of \$5.2 billion.

## 5. Conclusion

84. The exact value of the ResCap Trusts' R&W claims against the Debtors, of course, cannot be ascertained short of litigation or Bankruptcy Court estimation of all such claims to final resolution. The methodology that I used to estimate the value of these claims relies on the use of re-underwriting results, which counsel has instructed me to use as a rough proxy for what may constitute R&W breaches, and in addition reflects assumptions and directions I have been given by counsel as to the applicable law. Modifications to my methodology could be warranted as a result of further analysis, litigation of R&W claims, or legal determinations in this or other proceedings. Nevertheless, from an economic perspective, any analysis that seeks to measure the losses caused by R&W breaches or by underwriting defects must take account of the fact that the collapse of the housing market and the deterioration of the U.S. economy which began to accelerate in 2007 contributed significantly both to the number of mortgage loan defaults and to the severity of losses on defaulted loans. The evidence I have analyzed and described here suggests that underwriting defects also contributed to these losses. The methodology I have used is a reasonable approach to determining the amount necessary to compensate the ResCap Trusts for their collateral losses due to underwriting defects, without generating a windfall that allows them to recover for unrelated losses.

**Dated: December 3, 2012**



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## ACADEMIC AND PROFESSIONAL POSITIONS

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|---|---|
| December 2011–Present | *Senior Consultant*, Compass Lexecon |
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| 1999–December 2011 | *Senior Consultant*, CRA |
| 2005–Present | *Visiting Professor of Financial Economics*, California Institute of Technology |
| 1987–2005 | *Professor of Finance and Director of the Bank of America Research Center*, Anderson Graduate School of Management, UCLA |
| 1990–1999 | *President*, FinEcon: Financial Economic Consulting |
| 1988–1990 | *Vice-President and Director of the Securities Litigation Group*, Economic Analysis Corporation |
| 1979–1986 | *Assistant and Associate Professor of Finance*, UCLA |
| 1983–1984 | *Visiting Professor of Finance*, California Institute of Technology |
| 1977–1979 | *Assistant Professor of Finance*, University of Southern California |
| 1975–1977 | *Assistant Professor of Finance*, University of Arizona |

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## AWARDS AND HONORS

Graham and Dodd G&D Scroll Award for research on securities analysis and valuation, 2011

Bernstein Fabozzi/Jacobs Levy Award for outstanding research from *The Journal of Portfolio Management*, 2010

Graham and Dodd G&D Scroll Award for research on securities analysis and valuation (with Richard Roll), 2006

I/B/E/S award for research in empirical finance (with W. Landsman and J. Conrad), 1999

Cited as one of the 10 most prolific research authors in the field of finance in "Most Frequent Contributors to the Finance Literature" by Jean Louis Heck and Phillip L. Cooley, *Financial Management*, Autumn 1988

Financial Management Association Prize for Applied Research, 1987

Institute for Quantitative Research in Finance, Research Grant, 1984

Center for the Study of Futures Markets, Research Grant, 1983

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Chicago Mercantile Exchange, Research Grant, 1979

Phi Beta Kappa, Stanford University, 1970

Exhibit 2

**BRADFORD CORNELL**

**PAST 4 YEARS DEPOSITION AND TRIAL TESTIMONY**

| CASE NAME | DATE | TYPE |
|---|---|---|
| Ann M. Morrical v. Jesse Rogers et al. | 7/12 | Trial Testimony |
| Federal Deposit Insurance Corporation, As Receiver for Indymac Bank, FSB v. Scott Van Dellen et al. | 7/12 | Deposition Testimony |
| Georgia-Pacific Consumer Products LP, et al. v. NCR Corporation, et al. | 6/12 | Deposition Testimony |
| Negrete et al v. Allianz Life Insurance Company of North America | 5/12 | Deposition Testimony |
| In re American International Group, Inc. 2008 Securities Litigation | 10/11 | Deposition Testimony |
| In Re Compellent Technologies, Inc. Shareholders Litigation | 9/11 | Deposition Testimony |
| Trust Company of the West v. Jeffrey Gundlach et al. | 8/11; 10/11; 11/11 | Trial Testimony |
| In re Wells Fargo Mortgage Backed Certificates Litigation | 5/11 | Deposition Testimony |
| Trust Company of the West v. Jeffrey Gundlach et al. | 5/11; 6/11; 7/11; 9/11; 11/11 | Deposition Testimony |
| In re American International Group, Inc. 2008 Securities Litigation | 10/11 | Deposition Testimony |
| In re Compellent Technologies, Inc. Shareholders Litigation | 9/11 | Deposition Testimony |
| In re Wells Fargo Mortgage Backed Certificates Litigation | 5/11 | Deposition Testimony |
| Johnson and Johnson v. Guidant Corporation | 4/11 | Deposition Testimony |
| Maureen Backe, et al. v. Novatel Wireless, Inc., et al. | 2/11 | Deposition Testimony |
| Dalery Franco, et al. v. Connecticut General Life Insurance Co., et al. | 12/10 | Deposition Testimony |
| R. David Howe v. The Bank of New York Mellon, etc., et al. | 11/10 | Deposition Testimony |
| Republic Engineered Products, Inc. v. Acciaierie Bertoli Safau SpA | 11/10 | Deposition Testimony |
| James Hirschmann, et al. v. Abercrombie & Kent, Inc., et al. | 10/10 | Deposition Testimony |
| Lawrence Fogarazzo, etc., et al. v. Lehman Brothers, Inc., et al. | 6/10 | Deposition Testimony |

Exhibit 2

**BRADFORD CORNELL**

**PAST 4 YEARS DEPOSITION AND TRIAL TESTIMONY**

| CASE NAME | DATE | TYPE |
|---|---|---|
| Frederick J. Grede, etc. v. The Bank of New York and The Bank of New York Mellon Corp. | 5/10 | Trial Testimony |
| Alaska Retirement Management Board obo State of Alaska Public Employees' Retirement System, et al. v. Mercer (US), Inc., et al. | 5/10 | Deposition Testimony |
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| John J. Doll, et al. v. Pregis Corporation | 3/10 | Trial Testimony |
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| Boeing Satellite Systems International, Inc. v. TMI Communications, et al. | 10/09 | Arbitration Testimony |
| Arthur D. Roberts, et al. v. Robert H. Bisno, et al. | 9/09 | Trial Testimony |
| Jim Brown et al. v. Brett C. Brewer et al. | 8/09; 12/09 | Deposition Testimony |
| Arthur D. Roberts, et al. v. Robert H. Bisno, et al. | 6/09 | Deposition Testimony |
| Daewoo Motor America Inc. v. Daewoo Motor Co. | 4/09 | Deposition Testimony |
| In Re CV Therapeutics, Inc. Shareholder Litigation | 4/09 | Deposition Testimony |
| Rosen, et al. v. Mega Bloks, Inc., et al. | 3/09 | Deposition Testimony |
| Specialized Clutch & Brake of Stockton, Inc. v. Lieff, Cabraser, Heimann & Bernstein, et al. | 1/09 | Deposition Testimony |
| Starrh and Starrh Cotton Growers v. AERA Energy LLC | 11/08 | Deposition Testimony |
| Gartner, Inc. v. Stradling Global Sourcing LLC, et al. | 9/08 | Deposition Testimony |

Exhibit 3

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Joinder of Wells Fargo Bank, N.A., as Master Servicer for Residential Mortgage Backed Securities Trusts to "Pre-Auction Objections of the RMBS Trustees to the Debtors' Sale Motion," August 23, 2012

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Assignment and Assumption Agreement, dated as of October 11, 2005 between Residential Funding Corporation, a Delaware Corporation ("RFC") and Residential Asset Mortgage Products, Inc. a Delaware Corporation (the "Company")

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Exhibit 3

Materials Considered

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Exhibit 3

Materials Considered

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Exhibit 3

Materials Considered

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2012.11.07.DTA

AugIssuance.dta

Exhibit 3

Materials Considered

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gmacm_1st_iss.dta

gmac_csv.dta

gmac_excel.dta

historical_mly0612.dta

loanloss.dta

nonvision.dta

opensecondlien.dta

private deals.csv

RAAC_RP_ISS.csv

rfc_trusts.dta

tab1.dta

tab2.dta

tab3.dta

tab4.dta

tab5.dta

tab6.dta

tab7.dta

tab8.dta

tab9.dta

2012.11.07.CSV

1089 loan ids.csv

1500 sample.csv

Damages Tables for Report.xlsx

dealage 391.csv

Detailed Trust Performance-Final for stata.xlsx

KL3-#2895028-v1-Updated_Tolling_Agreement_Summary_9_13_12 for stata.txt

missing deal adjustment.xlsx

rescap_deal_names.csv

Table 1 for report.xlsx

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draw 1500 sample.do

election of remedies.do

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RC-9019_00002236, RASC KS Series ARM, 12-Month Roll Rates by Issue Year

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RC-9019_00002260, RASC KS Series FRM, 3-Month Roll Rates by Issue Year

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RC-9019_00003191, Prospectus supplement, May 29, 2007, RFMSI Series 2007-S5

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RC-9019_00056670
RC-9019_00066117
RC-9019_00039251
RC-9019_00039253

# EXHIBIT B

**Expert Report of J.F. Morrow**

**UNITED STATES BANKRUPTCY COURT**
**SOUTHERN DISTRICT OF NEW YORK**

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

**EXPERT REPORT OF J F. MORROW**

**DECEMBER 3, 2012**

## TABLE OF CONTENTS

I. OVERVIEW .......... 1
A. ASSIGNMENT .......... 1
B. QUALIFICATIONS .......... 1
C. BASIS FOR OPINIONS .......... 4
II. INDUSTRY BACKGROUND .......... 7
A. FIRST TRUST DEED/MORTGAGE LOANS .......... 7
B. SECOND TRUST DEED/MORTGAGE LOANS .......... 7
C. THE MORTGAGE PROCESS: THE ENTITIES AND THEIR ROLES .......... 8
D. THE MORTGAGE PROCESS: RESIDENTIAL MORTGAGE LOAN STAGES . 10
E. THE SECURITIZATION PROCESS .......... 20
III. SECURITIZATIONS .......... 23
IV. UNDERWRITING GUIDELINES AND PROCESSES .......... 24
A. UNDERWRITING GUIDELINES .......... 24
B. UNDERWRITING PROCESS .......... 25
C. SUMMARY .......... 27
V. THE LOAN FILES .......... 27
VI. LOAN DOCUMENTATION TYPES .......... 35
VII. THE RE-UNDERWRITING PROCESS .......... 38
FIRST: THE RE-UNDERWRITING PROCESS .......... 38
SECOND: RE-UNDERWRITING PERSONNEL .......... 56
THIRD: INFORMATION CAPTURED BY THE SURVEY .......... 57
VIII. OPINIONS .......... 63
A. OPINION ONE: SAMPLE POOL .......... 64
B. OPINION TWO: MATERIALLY DEFECTIVE LOANS .......... 69
IX. STATEMENT REGARDING NATURE OF LETTER REPORT .......... 71
EXHIBIT A .......... 72
EXHIBIT B .......... 76
EXHIBIT C .......... 78
APPENDIX A .......... 83

# I. OVERVIEW

## A. ASSIGNMENT

1. I, J F. Morrow, prepared this expert report ("Report") describing my work, findings, and opinions at the request of the Committee of Unsecured Creditors represented by Kramer Levin Naftalis & Frankel LLP in the bankruptcy of Residential Capital, LLC, et al. ("Debtors" or, collectively, "ResCap") regarding the 392 securitizations (the "Securitizations") covered by the Debtors' proposed settlement.

2. The assignment was to analyze the origination and underwriting of a randomly drawn sample of underlying residential mortgage loans securitizing the Securitizations that are the subject of this Report. Specifically, I was asked by counsel to re-underwrite loans for their compliance with the applicable underwriting guidelines when purchased or made, if provided, and as to the loan characteristics of the loans in connection with the Securitizations.

## B. QUALIFICATIONS

3. I have 45 years of experience with financial/mortgage institutions as a loan officer, servicer, executive, and consultant. I have worked in financial/mortgage institutions with a range of asset sizes from nationwide to start-up. Some highlights of my career relevant to this case include:

- For over 40 years, I have worked in residential real estate lending, including second lien lending.

- During my career, I have held most positions in mortgage lending institutions relevant to residential mortgage lending, including mortgage loan officer, underwriter, loan servicer, operations officer, branch manager, construction loan officer, compliance officer, credit process officer, chairman of the loan committee, director, and president.

- I have personally made or been otherwise directly involved in the origination of billions of dollars of real estate loans.

- For over 11 years, I served as President, Director, and CEO of a financial/mortgage institution, which included a mortgage entity.

- For over 6 years, I served as the President and a Director of a nationwide mortgage company.

- I served as the Chairman or a member of mortgage/financial institution loan committees for over 20 years.

- I served in senior management or as a director in seven different financial/mortgage institutions.

- On five occasions, I wrote and implemented policies and procedures manuals for financial/mortgage institutions covering operations, underwriting procedures, compliance, administration, internal audits, servicing, and collections.

- I have read over 250 financial/mortgage institution policy and procedures manuals.

- In the context of quality control, mortgage underwriting and mortgage re-underwriting, I have processed, analyzed and evaluated ten thousands of mortgage loans representing tens of billions of dollars of loans for various clients.

- I have held leadership positions in national and state financial institution trade associations representing over 5,000 financial institutions. For over 15 years, I have held national and state directorships in such organizations, and I have served as the president of a state financial institutions trade association.

- Serving as an expert witness in the area of mortgage finance, I have been qualified by courts as an expert witness for mortgage lending, mortgage loan underwriting, mortgage loan accounting, mortgage loan servicing, secondary market purchasing, residential mortgage warehouse lending, lender liability, operations,

collections, fraud, fiduciary duties, real estate policies and procedures, the Fair Credit Reporting Act ("FCRA") and the Fair Debt Collection Act ("FDCA"), among other areas. In the last 16 years, I have given depositions, prepared written reports, and testified in federal, bankruptcy and state courts. (See Exhibit B, List of Expert Witness Depositions and Court Testimony For The Last Four Years.)

- Since 2000, I have testified as an expert in 43 cases involving aspects of the origination of mortgage loans for clients including Fannie Mae, the State of California, Countrywide Home Loan, Wells Fargo Home Loan, and Washington Mutual Bank.
- I have taught and attended numerous financial, lending and mortgage institution seminars and conferences throughout my career.

4. A copy of my resume is attached as Exhibit A. I have no financial interest in the outcome of this litigation. I am being compensated at my regular hourly rate of $400.

**C. BASIS FOR OPINIONS**

5. My opinions are based and rely on:

- Applicable mortgage industry parameters, norms and standards (the “Industry” or “Industry parameters, norms and standards”), based on (1) laws and regulations applicable to financial/mortgage institutions, such as Regulation Z, FCRA, FDCA, and Real Estate Settlement Procedures Act (“RESPA”); (2) guidelines and requirements promulgated by Fannie Mae, Freddie Mac, FHA, HUD, Federal Reserve Board (“FRB”), Office of Comptroller of Currency (“OCC”), and FDIC; (3) over 250 financial/mortgage institution policy and procedures manuals I have read; (4) template financial/mortgage institution policy and procedures manuals which are recognized and utilized by financial/mortgage institutions; (5) my having written or co-written five financial/mortgage institution policy and procedures manuals; (6) hundreds of financial/mortgage institution articles, books and treatises that I have reviewed, including those published by the Mortgage Bankers Association; (7) personal interaction with thousands of financial/mortgage institution executives across the United States during my career; and (8) my work experience including (a) spending 17 years as Director, President and/or CEO for financial/mortgage institutions, (b) founding two mortgage entities, (c) working in senior management and/or directorship for seven different financial/mortgage institutions that provided residential mortgage

loans, and (d) underwriting, funding and servicing residential mortgage loans.

- Documents, as listed in Exhibit C.

- Reference materials cited in the Report or to be identified at deposition or trial.

6. I have also directed and relied on the work of Analytic Focus LLC ("Analytic Focus"), as described in more detail in Sections IV, V, VI, and VII of this Report. Working under my supervision, Analytic Focus underwriters have re-underwritten 1089 randomly selected loans[1] within the Securitizations. The purposes of the re-underwriting were twofold: (1) to determine for the loans' compliance with the appropriate originator underwriting guidelines, while applying the Industry parameters, norms and standards to the loan underwriting, and (2) to determine their compliance with the characteristics of the loans in connection with the appropriate Securitizations.

7. My opinions set forth in Report are not, nor are they intended to be, legal opinions, but are based on my knowledge, skill, training, education, and experience in the Industry. The purpose of offering my opinions is to assist the

[1] The initial random sample of 1500 loans was obtained. However, 92 loans were not able to be re-underwritten as the appropriate originating underwriting guidelines were not provide/ available and 319 loans were incomplete loan files that did not provide enough information from which to re-underwrite these loans.

trier of fact by employing my specialized knowledge regarding mortgage underwriting procedures, credit management, and practices in originating, underwriting, and funding mortgage loans.

## II. INDUSTRY BACKGROUND

8. The following descriptions of the mortgage products that made up the Securitizations are discussed.

### A. FIRST TRUST DEED/MORTGAGE LOANS

9. The first trust deed/mortgage residential loans ("Firsts" or "First Mortgages") are mortgages that are secured by first trust deeds/mortgages on the pledged property. The types of loan documentation for the Firsts in the Securitizations were full documentation ("Full Doc"), alternative documentation ("Alt Doc"), no income/no assets documentation ("NINA"), no income/verified assets documentation ("NIVA"), no income/verified assets/no employment ("NIVANE"), stated income/stated assets ("SISA"), stated income/verified assets ("SIVA"), and other documentation ("Other").

### B. SECOND TRUST DEED/MORTGAGE LOANS

10. The second trust deed/mortgage residential loans[2] ("Seconds" or "Second Mortgages") are home equity lines of credits ("HELOCS") or closed-end

[2] One of the loans re-underwritten was a third trust deed loan. Since its requirements are basically the same as the Seconds, this loan is treated as a Second would be.

second mortgages ("CES") that are secured by second trust deeds/mortgages on the pledged property. The types of loan documentation[3] for the Seconds were Full Doc, Alt Doc, NINA, NIVA, SISA, SIVA, and Other.

### C. THE MORTGAGE PROCESS: THE ENTITIES AND THEIR ROLES

11. There are several principal entities involved in the residential mortgage loan process: the borrower, mortgage broker, mortgage banker, secondary market investor, and loan administrator/servicer.

12. A **borrower** is a person purchasing or refinancing a residential property that obtains the mortgage loan(s) for the purchase or refinance. In retail loan transactions, the borrower obtains the loan through a direct retail mortgage entity. In wholesale loan transactions, the borrower obtains the loan through a mortgage broker.

13. A **mortgage broker** is a firm or individual that matches borrowers and lenders for a commission. A mortgage broker typically takes the borrower's application and processes the loan with the mortgage banker, but generally does not use its own funds for closing.[4]

[3] One of the materially defective loan was a closed-end third trust deed/mortgage loan.
[4] **Mortgage Banking Terms**, page 107.

14. The **mortgage banker,** which is also the originator, underwrites the risk involved in making the mortgage loan to determine whether the borrower satisfies the loan underwriting guidelines for the particular loan program and to ensure the associated risks are acceptable. After underwriting approval, the mortgage banker funds and closes the mortgage loan. Then the mortgage banker/originator either sells the mortgage loan to another mortgage banker or investor, or retains the loan for its portfolio. The mortgage banker typically performs quality control audits on a statistical sampling of closed mortgage loans to detect fraud and to insure compliance with policies and procedures.

15. **Secondary market investors** are Government-Sponsored Enterprises (GSEs), private conduits, or investors who purchase mortgage-backed, long-term investment instruments made up of pooled individual residential first or second trust deed mortgage loans.

16. **Loan administrator/servicers** are institutions servicing and acting for the benefit of ultimate investors regarding the mortgage loans. Their functions include collection of payments for borrowers, customer service, advancing funds for delinquent loans, and taking defaulting properties through the foreclosure process.

## D. THE MORTGAGE PROCESS: RESIDENTIAL MORTGAGE LOAN STAGES

17. The residential mortgage loan process consists of seven stages: Loan production, Loan processing, Loan underwriting, Loan closing, Shipping and delivery, Quality Control, and Loan Administration.

18. **Loan production** is the process of originating residential mortgage loans. For some mortgage banker, loans can be originated through various channels, including retail, wholesale, and correspondent lending. In retail lending, the mortgage banker's employees solicit loans directly from the public. In wholesale lending, the mortgage banker like ResCap has arrangements with external mortgage brokers, under which the mortgage brokers solicit loans from the public, and then bring them to the mortgage banker for closing. In other words, mortgage brokers act as the marketing arm for the mortgage bankers. Finally, the mortgage banker like ResCap can purchase already-funded mortgage loans singly or in bulk from another mortgage banker or financial institution.

19. **Loan processing** is performed by the mortgage banker in the case of direct retail originations, or by the mortgage broker in the case of wholesale originations, as part of their duties and responsibilities to the borrower and the

mortgage banker. Loan processing is succinctly described in the Handbook of Mortgage Lending published by The Mortgage Bankers Association of America:

> Loan processing consists of two very important functions. First, loan processing includes the gathering of verified documents that confirm credit, income, and collateral information about the applicant, loan, and the real estate. This verified information allows the underwriter to assess the applicant's ability-to-repay the mortgage and the adequacy of the collateral securing the mortgage loan. Second, loan processing involves a collection of various data required for closing of the loan.[5]

20. **Loan underwriting:** The mortgage banker's underwriter decides whether the loan will be consistent with governing loan program underwriting standards and, therefore, should or should not be made or purchased by the mortgage banker. Based on all the information gathered during the mortgage loan processing by the mortgage banker or mortgage broker, the loan underwriter analyzes and considers three general areas of risk — ***capacity risk*** (the borrower's ability to repay the loan), ***collateral/capital risk*** (property risk), and ***credit/character risk*** (the borrower's willingness to repay the loan).

[5] Hutto, Gary W., and Jess Lederman, **Handbook of Mortgage Lending** (Washington, DC: Mortgage Bankers Association of America, 2003), at page 123.

21. ***Capacity risk*** looks to the borrower's ability to repay the loan. The underwriter must analyze and evaluate how much income the applicant has available to devote to the mortgage payments. Traditionally, the applicant's income from salaries, overtime, part-time and second job income, commissions, interest and dividends, annuities, investments, trust income, etc. is substantiated by the applicant providing tax returns, W-2's, pay stubs, etc. However, if the proposed loan criteria do not require verification of income, such as in a stated income loan, only the borrower's employment is verified, not income. Over the last 15 years or so, mortgage bankers have accepted more and more "stated income" or "low documentation" loans, which, in exchange for a higher interest rate paid to the mortgage banker, do not require borrowers to fully document their income, assets and/or employment. Originally, 'low doc' or 'no doc' loan programs were geared towards busy professionals who did not have the time or inclination to provide full documentation in support of their applications. 'Low doc' or 'no doc' loan programs have also been geared towards borrowers who have difficulty providing traditional, full documentation in support of their applications, such as self-employed borrowers or borrowers employed by foreign employers. In all instances, however, the underwriter must assure himself or herself that the borrower has the ability to repay the loan. Even where income is not required to be documented, but only stated, the underwriter must assure him or herself that the borrower's stated income is reasonable and where there is information to

suggest that it is not, a prudent underwriter would not make that loan without further documentation to verify the borrower's ability to repay.

22. To further assess capacity, the underwriter calculates the ratio of the borrower's debts to his or her income, and determines whether that ratio meets applicable standards/guidelines. Under the traditional income analysis, the underwriter calculates two qualifying ratios. The first is the Primary Housing-Expense/Income Ratio, which is also called the front-end ratio. The second is the Total-Obligations/Income Ratio that is also called the back-end ratio. The underwriter determines the Primary Housing-Expense/Income Ratio by adding up all the monthly housing expenses (generally, mortgage payment, association dues, special assessments, house insurance, mortgage insurance and property taxes) that the borrower will have upon receiving the loan and occupying the property and dividing this by the monthly income that the underwriter determined from his income analysis. The underwriter determines the Total-Obligations/Income Ratio by adding up all the borrower's total monthly debt payments, which includes monthly housing expenses plus any other debts or obligations (credit cards, child support, alimony, lease payments, car loans, home-equity lines, unsecured lines of credit, term loans, etc.) with the remaining terms exceeding a specified period, and dividing this by the total monthly income that the underwriter determined from his or her income analysis.

23. ***Collateral/capital risk*** looks first to the value of the property. The underwriter must assess whether the collateral is sufficient to mitigate the event of the borrower's default if it were to occur. To assess collateral risk, the underwriter must first process the appraisal to determine the property value, making sure that all the criteria required by the appraisal standards/guidelines are met. After determining that the appraisal meets required criteria, the underwriter calculates the loan's loan-to-value ("LTV") and combined-loan-to-value ("CLTV") ratios and determines whether those ratios meet applicable standards/guidelines.

24. The property value is also relevant to assessing the borrower's willingness to repay. All else being equal, a borrower with mortgage loans at a low CLTV is less likely to allow the loan to go into default, because he or she has significant equity to lose in the event of foreclosure. Conversely, a borrower at 100% CLTV has less at stake and less incentive to avoid default if and when payments become difficult to make. As stated in the Interagency Guidance on High LTV Residential Real Estate Lending, "[a] delinquent borrower with little or no equity in a property may not have the incentive to work with the lender to bring the loan current to avoid foreclosure."[6] The underwriter should also look to whether the property is an investment or an owner-occupied property, as these

[6] October 8, 1999 Interagency Guidance on High LTV Residential Real Estate Lending (Office of the Comptroller of the Currency, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Office of Thrift Supervision, National Credit Union Administration).

factors also relate to the borrower's motivation to make payments and avoid default. It is well understood in the Industry that borrowers are more likely to work harder to avoid defaults where their home is at risk than when all that is at risk is an investment.

25. The underwriter must also evaluate the ***credit/character risk*** of the borrower to determine the borrower's willingness to repay. Studies have shown that past credit history is highly indicative of whether a prospective borrower will make future payments. The underwriter analyzes the prospective borrower's credit history by obtaining a credit report from a credit reporting agency ("Credit Report"). This Credit Report covers the prospective borrower's credit histories for the last seven years, including credit histories for credit cards, automobile loans, student loans, other home loans, etc., as well as negative credit information, such as bankruptcies, notices of default, and foreclosures. Credit reports will also contain, if provided, the borrower's Fair Isaac Score, Beacon Score, and/or Empirica Score — commonly referred to as FICO scores. A FICO score is a numerical value that ranges between 350 and 880 for Fair Isaac, between 300 and 850 for Beacon, and between 150 and 934 for Empirica with the low end of the scale representing a poorer credit risk. Loan entities then use the borrower's FICO scores to chart whether or not a prospective borrower is eligible to receive a particular type of mortgage. Any additional credit criteria for the prospective loan(s) must also be evaluated. The assessment of the borrower's willingness to

repay goes beyond the bottom line FICO score, and looks to credit history information such as the number of late payments, the number of credit inquiries, and the depth of the borrower's credit history. It also involves an assessment of the borrower's motivation for taking out the loan, for example whether the loan is a purchase loan or a cash-out loan as a cash-out loan may be suggestive of heavy debt use.

26. To assess and manage the capacity, collateral and credit/character risk of loans, the standard in the Industry is for underwriters to follow mortgage underwriting guidelines. Unless the originator/mortgage banker is underwriting based on guidelines promulgated by Fannie Mae, Freddie Mac, or a specific mortgage banker, the originator/mortgage broker/mortgage banker will have and follow its underwriting guidelines. For example, as discussed below, ResCap's principal correspondent underwriting guidelines during the relevant period set out the allowable credit characteristics, guidelines, and standards for Firsts and Seconds/Thirds that it was purchasing from the original originators, some of which had their own underwriting guidelines. These underwriting guidelines serve to limit, standardize, and balance inherent loan risks by requiring a combination of loan attributes to offset these inherent risks. For example, if a loan has a higher risk in some respects (e.g., high CLTV), generally it must have offsetting positive factors (e.g., higher FICO); similarly, loans that have less income documentation may require more verified cash reserves. Generally, guidelines

cover all the "three C's" – ***collateral risk, capacity risk, credit/character risk*** – as well as any specific attributes applicable to particular loan products. "All relevant risk factors should be considered when establishing product offerings and underwriting guidelines."[7]

27. It is also standard in the Industry for originators/mortgage bankers to allow some level of exceptions to their guidelines, although care must be taken that exceptions do not become so common or so pervasive that they make the guidelines irrelevant. When processing exceptions, underwriters should make an assessment of the risk of the exception and should look for "compensating factors" that are strengths of the loan over and above the ordinary requirements of the guidelines that work to offset the risk of the exception. The underwriter should look at the whole loan, not considering the exception in isolation. The basis for exceptions should be clearly documented.

28. During the underwriting process, the underwriter must continually be aware of "red flags" that indicate that the borrower may have problems repaying the loan, that the borrower may not qualify for the type of mortgage loan being sought or that there may be fraud. FannieMae[8] and FreddieMac[9] have

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[7] May 16, 2005 Interagency Credit Risk Management Guidance for Home Equity Lending (Office of the Comptroller of the Currency, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Office of Thrift Supervision, National Credit Union Administration). See also September 29, 2006 Interagency Guidance on Nontraditional Mortgage Product Risks (Office of the Comptroller of the Currency, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Office of Thrift Supervision, National Credit Union Administration).

[8] Fannie Mae, Originating Quality Mortgages, July 8, 2002

developed mortgage-screening fraud checklist that includes red flags/fraud indicators ("Red Flags") for the various underwriting areas. These Red Flags as well as others were to be employed by underwriters in underwriting mortgage loan transactions to detect possible loan problems and fraud. In addition, the Mortgage Bankers Association of America published book Handbook of Mortgage Processing[10] lists and discuss red flags/fraud indicators.

29. **Loan closing**. Once a loan has been underwritten and approved, the mortgage banker's loan closer processes the file for completeness and orders loan documentation prepared. The loan documentation is then sent to the closing agent for legal execution of the loan documents. After receiving back the executed documents from the closing agent, the loan closer verifies the signed documents and authorizes funding of loan proceeds that are most often then wire transferred to the appropriate bank account of the closing agent. At this point, the loan is originated.

30. **Shipping and Delivery**. Once the loan is closed, the mortgage banker will retain the loan in its portfolio, sell it to another mortgage banker, or ship the loan to fulfill its sales commitments to GSEs or other secondary market investors.

[9] Freddie Mac, Discover Gold Through Quality Fraud Prevention Best Practices, November 2005
[10] Chapter 10: Fraud Prevention

31. **Quality Control**. Mortgage bankers must perform ongoing quality control audits of a statistical sampling of the mortgage loans[11] that they make. This quality control is to detect not only fraud, but also to detect minor/major deviations from their own underwriting guidelines and policy/procedures. The quality control auditor typically re-underwrites the mortgage loan and reverifies some or all of the borrower information. In some cases, telephone or in-person interviews of the borrower may be part of the audit. As stated in the Interagency Guidance on High LTV Residential Real Estate Lending:

> Institutions should perform periodic quality analyses through loan process and portfolio monitoring. These periodic reviews should include an evaluation of various risk factors, such as credit scores, debt-to-income ratios, loan types, location, and concentrations. At a minimum, institutions should segment their high LTV loan portfolio by their vintage (age) and analyze the portfolios' performance for profitability, growth, delinquencies, classifications and losses, and the adequacy of the allowance for loan and lease losses based on the various risk factors. Institutions should monitor the ongoing performance of their high LTV loans by periodically re-scoring accounts, or by periodically obtaining updated credit bureau reports or financial information on their borrowers.[12]

32. **Loan Administration/Servicing** includes the administrative and financial duties associated with the management of closed mortgage loans for

[11] The random sampling must be 95% confidence level. See Appendix to **Handbook of Quality Control**.

[12] October 8, 1999 Interagency Guidance on High LTV Residential Real Estate Lending (Office of the Comptroller of the Currency, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Office of Thrift Supervision, National Credit Union Administration).

investors/owners. These duties include the collection of mortgage payments, escrow administration, foreclosures, and customer service.

### E. THE SECURITIZATION PROCESS

33. Generally, major mortgage bankers/originators securitized residential mortgage loans so that they could sell the private label residential mortgage-backed securities ("RMBS") in the capital market to enhance liquidity, funding, and profits.

34. Securitization Parties. The private label RMBS involves at least ten parties, although the same entity can fulfill more than one party's position.

(a) ***Originators*** are the mortgage bankers who either funded the original underlying mortgage loans or purchased the underlying mortgage loans from other mortgage bankers.

(b) The ***Sponsor/Seller*** accumulates the underlying mortgage loans into a pool, engage counsel, and investment bankers/depositor to create a trust so that the RMBS can be issued.

(c) ***Investment Banker/Depositor/Purchaser*** acts as an intermediary between the issuer/trust and investors/certificateholders as well as assisting in structuring the securitization, interacting with rating agencies and credit enhancers like Ambac, and selling the securitization.

(d) ***Servicer*** manages the underlying mortgage loans on a day-to-day basis including establishing policies and procedures for servicing, monitoring performance of the loan portfolio, and handling the actual payment collections.

(e) ***Owner Trustee*** is the trustee for the issuing entity.

(f) ***Indenture Trustee*** has the responsibilities to oversee the disbursement of cash in accordance with the trust requirements, oversight of management for compliance with pooling and servicing agreements.

(g) ***Custodian*** holds the actual underlying mortgage notes, mortgages, and other legal documents in the mortgage files for the investors/certificateholders.

(h) ***Insurer*** insures a certain certificate and/or note tranche(s) issued under the Securitization secured by first priority of payments from the underlying mortgage loans so that a Rating Agency will classify the class of certificate or note a higher rating, such as AAA.

(i) ***Rating Agency*** is engaged by the Sponsor to rate the various tranches of the securitization certificates that are sold to the Investors/Certificateholders.

(j) ***Trust/Issuing Entity*** is created by the Depositor and Owner Trustee to be the owner of the underlying mortgage loans and the issuer of the notes and certificates to the Investors.

(k) ***Investors/Certificateholders*** are the purchasers of the securitization certificates that are sold.

35. RMBS Securitization Documents. The documents involved in issuing a RMBS are "fairly standard between transactions and across different law firms[13]." The following are some of those documents.

- Prospectus and Prospectus Supplement. The prospectus and prospectus supplement ("ProSup") are the offering documents produced by the Investment Banker/Depositor for the potential Investors/Certificateholders, which contain the descriptions in detail of the underlying mortgage loans, including the mortgage types, the risk factors, payment characteristics, and underwriting principles employed in originating.
- Mortgage Loan Purchase Agreement. This document is between the Purchaser and Seller. In this agreement, the Seller makes comprehensive representations and warranties regarding the underlying mortgage loans as well as limited repurchase agreements to repurchase, cure, or replace an

[13] Mortgage and Asset Backed Securities Litigation Handbook, § 1:35

underlying mortgage loan that does not comply with the agreement's representations and warranties.

- Servicing Agreement[14]. This agreement between the Servicer, Trust, and Indenture Trustee governs the general servicing and administrating of the underlying mortgage loans.

- Insurance and Indemnity Agreement. This agreement between the Sponsor/Seller, Depositor/Purchaser, Servicer, Trust/Issuing Entity, Indenture Trust, and Insurer states the representations and warranties between the parties and the resulting duties of the parties should the representations and warranties be deemed in default.

## III. SECURITIZATIONS

36. There are 392 securitizations ("Securitizations") in seven different securitization shelves ("Shelves"). These Shelves are GMACM-RAMP, RAAC, RALI, RAMP, RASC, RFMSI, and RFMSII. Under each of these Securitizations' Shelves, specific series were issued for Firsts and/or Seconds. Below is a chart of those series for each of the Shelves.

[14] Also the Mortgage Loan Purchaser Agreement and Servicing Agreement can be combined into a Loan Pooling and Servicing Agreement.

| SHELVES | SERIES |
|---|---|
| **GMACM-RAMP** | AA, AF, AR, GH, HE, HLTV, J |
| **RAAC** | SP |
| **RALI** | QA, QH, QO, QS |
| **RAMP** | EFC, NC, RS, RZ, SL |
| **RASC** | AHL, EMX, KS |
| **RFMSI** | SA, S |
| **RFMSII** | HI, HS, HSA |

## IV. UNDERWRITING GUIDELINES AND PROCESSES

37. This section describes some of the key features of underwriting process for the Firsts and Seconds.

### A. UNDERWRITING GUIDELINES

38. ResCap provided 37 versions/updates of GMAC-RFC Client Guides between February 23, 1998 and June 25, 2007. These GMAC-RFC Client Guides were the underwriting guidelines utilized in originating or purchasing the Sample Loan re-underwritten for this Report. Based on the Industry, underwriting guidelines for the Firsts and Seconds/Thirds covered at least two areas. The first is the underwriting guidelines that contain processes and instructions for originating loans, such as how to calculate loan-to-value ratios ("LTV") and debt-to-income ratios ("DTI"), reserve requirements, and definitions and features of the loan products. Working in concert with these underwriting guidelines, the second underwriting area, the loan/credit matrices/parameters, set limits on loan characteristics, such as ratios, loan amounts and reserve requirements for specific loan types. For example, chapters

3 and 4 of the GMAC-RFC Client Guides covered the first area, while chapters 5, 6, and 7 covered the second.

### B. UNDERWRITING PROCESS

39. According to the Securitization, each First, Second, and/or Third was originally underwritten by the loan originators (a) so that the Firsts and Seconds complied with all the terms, conditions, and requirements of the underwriting standards for GMAC-RFC Client Guides in effect at the time of origination, (b) for those Firsts and Seconds acquired and purchased by ResCap from other originators, those loans were to generally meet the underwriting guidelines in the GMAC-RFC Client Guides as tested by the ResCap automated underwriting system ("AUS"), or (c) ResCap purchased a block of mortgages from a originator and then those mortgages were to the underwriting guidelines of that originator.

40. In addition, the ProSups for most of the Securitization shelves/(series) included limiting language regarding the underwriting compliance ("Caveats"), while some shelves/series had no direct statement regarding underwriting compliance. The following is the summary of the various Caveats.

- ❖ For RFMSI (S, SA), RFMSII (HI3), RASC (AHL), RAMP (RS, NC, EFC), RALI (QO, QH, QA), and GMACM-RAMP (J, GH, AR)

Securitizations, a sample caveat regarding the underwriting is as follows from RAMP 2006-NC2:

> "However the application of the underwriting standards does not imply that each specific criterion was satisfied individually. Rather, a mortgage loan will be considered to be originated in accordance with the underwriting standards described below if, based on the overall qualitative evaluation, the loan is in substantial compliance with the underwriting standards. For example, a mortgage loan may be considered to comply with the underwriting standards described below, even if one or more specific criteria included in the underwriting standards were not satisfied, if other factors positively compensated for the criteria that were not satisfied."

❖ For RFMSII (HSA4, HS2) and GMACM-RAMP (HE, AF, AA), a sample caveat regarding the underwriting is as follows from GMACM-RAMP 2007-HE1:

> "The underwriting standards set forth in the [entity's] underwriting guidelines with respect to mortgage loans originated under the [entity's loan] programs may be varied in appropriate cases. There can be no assurance that every mortgage loan was originated in conformity with the applicable underwriting standards in all material respects, or that the quality or performance of the mortgage loans will be equivalent under all circumstances."

❖ For RAAC (SP), RAMP (SL), and RASC (KS), a sample caveat regarding the underwriting is as follows from RAMP 2005-SL2:

> "Certain mortgage loans have been originated using underwriting standards that are less restrictive than the underwriting requirements used as standards for other first lien mortgage loan purchase programs, including other programs of residential funding and the programs of Fannie Mae and Freddie Mac. Applying less restrictive underwriting standards creates additional risks that losses on the mortgage loans will be allocated to certificateholders."

- ❖ For RAMP (RZ), RALI (QS), RASC (EMX), and GMACM-RAMP (HLTV), there is no direct caveat, but a generalized discussion that ResCap generally reviewed these loans for meeting the ResCap Guidelines or similar.

### C. SUMMARY

41. In this Report, “ResCap Guidelines” means collectively (a) the GMAC-RFC Client Guides, (b) any other originator’s underwriting guidelines (if available) used to underwrite the Sample Loan(s), and (c) the Securitization Prospectus Supplement’s section concerning underwriting, which included the caveats.

## V. THE LOAN FILES

42. ResCap maintained loan files containing the documents relevant to the underwriting of each loan. The randomly selected loan files re-underwritten were typically several hundred pages long. To determine whether a loan was

properly underwritten, it is necessary to process the entire file. This can take up to several hours for each loan, even for an experienced underwriter.

43. The contents of ResCap's loan files varied from loan to loan, but certain items were standard. Some of the important contents of a typical loan file included: the borrower's application form; the "transmittal" form recording approval of the loan; the borrower's credit report; an appraisal/AVM of the property; documentation of the borrower's income, employment and assets; and mortgage documents such as the note/agreement and mortgage.

44. The typical contents of a ResCap loan file are described in more detail below:

- Uniform Residential Loan Application (FNMA Form 1003). The Uniform Residential Loan Application ("1003") was used to record relevant financial information regarding borrowers who applied for a mortgage on a one-to four-family property. This is a standard form in the industry, created by Fannie Mae. The 1003 contains the required information for the type of mortgage loan being requested, such as, the applicant's assets, liabilities, income, occupation and employment history, real estate holdings, and other demographic and personal information. The borrower when applying for the loan provides this information.

- Credit Report. ResCap Guidelines required that all loan files contain a credit report from an approved credit-reporting agency.[15] Credit reports are standard documentation in the Industry. A credit report provides an overall credit score, *i.e.*, FICO score, for the borrower, along with more detailed information on the borrower's credit history, typically including information relating to such matters as credit history for current and past mortgages, merchants, lenders, installment and revolving debt payments, and any record of delinquencies, defaults, bankruptcy, collateral repossessions, suits, or judgments.
- Appraisal. All loan files must contain a copy of an appraisal or such of the property. ResCap Guidelines required that full appraisal using standard appraisal forms approved by Freddie Mac and Fannie Mae[16], a drive-by appraisal using standard appraisal forms approved by Freddie Mac[17] and Fannie Mae, or an alternate valuation model report ("AVM") that has been produced by independent third parties. Different loan types had different

[15] For examples, ResCap Correspondent Underwriting Guidelines dated August 2006, Section E. Underwriting the Borrower, Paragraph 600 Credit Standards and Quicken Loans HELOC/Closed-end Second Underwriting Guidelines version 09.06 revised 11/3/2006, page 5, Section 5.0 Credit Analysis.

[16] http://www.efanniemae.com/sf/formsdoGMAC/forms/pdf/sellingtrans/1004.pdf

[17] http://www.freddiemac.com/sell/forms/pdf/2055.pdf

appraisal requirements under ResCap Guidelines. For example, some loan types required a drive-by evaluation, which is an exterior examination of the premises by the appraiser to determine that the property is in good condition, while for other loan types, it was permissible to appraise the property electronically via an AVM.

- Income Documentation. The loan files contained widely varying levels of income documentation, depending on the borrower's employment situation and the applicable loan program. The Securitization contains Firsts and Seconds originated under Full Doc, Alt Doc, NINA, NIVA, SISA, SIVA, and Other.

45. When a loan was originated for a salaried borrower under Full Doc program, the ResCap Guidelines generally required that the file contain copies of the borrower's W-2 forms for the last full two years, and the current month's paystubs with year-to-date earnings. A Full Doc loan for a self-employed borrower generally required documentation of last two years tax returns and a year-to-date profit and loss statement. Other sources of income, including child support payments, social security benefits, disability retirement payments, workers' compensation benefits, and rental income also have to be documented in the file by means including account statements, rental agreements, award letters, or policy agreements.

46. By contrast, under the NIVA program, the borrower was generally not required to provide formal documentation of their income – the only information in the file regarding the borrower's income was job title and employer, as stated by the borrower, all on the 1003.

- Employment Documentation. The types of employment documentation that appeared in a ResCap loan file varied depending on the loan program and the borrower's employment situation. Under Full Doc program, a salaried borrower was required to submit a completed Verification of Employment[18] ("VOE"), which was used to verify the applicant's past and present employment status. Once the applicant signed the VOE, and thereby authorized his or her employer(s) to release the requested information, separate VOE forms were sent to each firm that employed the applicant in the past two years. For the NIV loan, no written VOE was required. Instead, if the borrower was salaried, within 2 weeks prior to funding of the loan a verbal verification of employment ("VVOE") for the borrower, which showed that the lender/originator's employee made telephone contact with the borrower's place of employment listed on the application to confirm his or her employment just prior to the closed of the loan.

[18] http://www.efanniemae.com/sf/formsdoGMAC/forms/pdf/sellingtrans/1005.pdf

- Asset Documentation. As with income and employment verification, the type of asset documentation for a loan depended on the borrower and the loan program. ResCap Guidelines generally required that NIVA loan, to compensate for the risks of lower income documentation, contain evidence of sufficient amount of liquid assets, in the form of bank statements, verifications of deposit ("VOD"), investment statements, or retirement statements to satisfy down payment and reserve requirements, if any. If rental property(ies) was part of the assets, either a copy of leases was required or only 75% of the rental income could be utilized for DTI calculations.
- Mortgage Documents. Loan files were required to contain certain binding documents regarding the loan agreement and mortgage (collectively, "Loan Documents").
    - *First/Senior Lien Note.* Each loan file should have contained a copy of the first lien note. The first lien note contained information on the payment terms of the first lien, including the monthly amount and whether the loan was negatively amortizing. For Seconds, this information was necessary to ensure that the first lien did not make the Second ineligible to be made and, if the first lien was eligible, then to calculate

the borrower's ability to make combined payments on the first and second liens.

- *Home Equity Credit Line Agreement and Disclosure Statement:* Governs the home equity loan. It covers the method of payments, amount of the line/loan, the calculation method for the interest rate, property security, borrower's rights, and other provisions.
- *Deed of Trust/Mortgage*: A type of security instrument(s) conveying title in trust to a third party covering a particular piece of property.
- *Exception Approval Documentation.* Like most lenders, ResCap allowed loans that were outside of the ResCap Guidelines, but any exception would document it in the file.
- *Settlement Statement HUD-1/HUD-1A.* As required by RESPA, HUD-1 are used by the settlement agent (also called the closing agent) to itemize all charges imposed upon a borrower and seller for a real estate transaction; it gives each party a complete list of their incoming and outgoing funds for the specific real estate transaction. The similar HUD-1A is used for transactions that do not include a seller. These forms each have a section, titled "Disbursements to Others," that discloses and itemizes those

debts that a borrower is paying off from the proceeds of the loan. This section of the HUD-1 and HUD-1A is vital when verifying that a borrower used the proceeds of the loan in accordance with any conditions for approval, such as if the borrower was required to consolidate debts or pay off intervening liens. Because the HUD-1 and HUD-1A often contain evidence as to the borrower's debts, these forms are also important for determining whether DTI is correctly calculated. In addition, the HUD-1 for any Piggyback HELOC is vital in verifying the underlying first mortgage transaction for down payment requirements, possible fraud, as well as other matters.

- *Uniform Underwriting and Transmittal Summary (Fannie Mae Form 1008).* Lenders use the Uniform Underwriting and Transmittal Summary ("1008") to summarize key information utilized in the comprehensive risk assessment of the mortgage loan and the final underwriting decision. The 1008 or similar is universally utilized in the Industry.
- *Other Documentation.* The ResCap Guidelines often required additional documents for the underwriter to close the loan. A few examples of these documents are:

- *Additional income or employment documentation.*
- *Letters of explanation regarding derogatory credit information.*
- *Evidence that collection accounts had been paid off.*
- *The appraiser's current valid state license.*
- *Verification of assets, e.g. bank statements.*
- *Letter from tax preparer for self-employed borrower.*
- *Verification of 1003's employment information from third party, e.g., telephone book, Internet.*
- *Explanation of credit information, e.g., excessive credit inquiries.*
- *Rescission documentation if a refinance or stand alone Second.*
- *Process appraisals.*
- *Early disclosures.*
- *Truth-in-Lending form.*

## VI. LOAN DOCUMENTATION TYPES

47. The types of loan documentation for the Firsts and Seconds were Full Doc, Alt Doc, NINA, NINANE (Firsts only), NIVA, SISA, SIVA, and Other.

The fundamental distinction in documentation types between programs is the required documentation of income and assets.

48. Full Doc Loans. Full Doc type loan is the Industry standard full documentation loan including verification of income by documentation in the form of paystubs and tax returns as well as verifications of employment and assets.

49. Alt Doc Loans. Alt Doc type loan is the Industry standard full documentation loan except that verification of income by alternative means such as W-2's, paystubs, and/or 6-to-12 deposit account statements, but still requires verifications of employment and assets.

50. NINA, NIVA and NIVANE Loans. NINA, NIVA and NIVANE loan types are the Industry standard full documentation loan basically except that (1) the borrower's income is not stated on the 1003, (2) no verification of employment, and (3) only borrower's assets that are verified are stated on the 1003.

51. NINA Doc loans are even riskier than Full Doc, Alt Doc, NIVA Doc, and SISA loans. These types create opportunities for borrowers, since there is no disclosure or verification of income or assets, to purchase property that the borrower cannot qualify for under any other documentation type. For this reason, as discussed above, the originator's guidelines generally imposed tighter restrictions on other characteristics for this type of loans, i.e., FICO score.

52. SIVA and SISA Loans. SIVA and SISA Doc types are the Industry standard full documentation loan basically except that (1) the borrower's unverified income is stated on the 1003, which must be reasonable for the occupation, years on the job/trade, and position/title, (2) verbal verification of employment and (3) borrower's assets, verified for SIVA and unverified for SISA, are stated on the 1003, but must be sufficient to cover any closing costs, including down payment, if any, and required reserves.

53. SIVA and SISA loans are riskier than fully documented loans. These types create opportunities for borrowers to overstate their income. There are many reasons why borrowers might overstate their income. Some borrowers may commit deliberate fraud, obtaining loans that they know they cannot afford in the hope that the property will quickly appreciate and they will be able to flip it, or to take advantage of the new equity to refinance. Other borrowers may overstate their real income without any conscious intention to commit fraud. Self-employed or freelance borrowers may often have an overly optimistic estimation of their "real" income. Salaried borrowers may base their statements on hoped-for bonuses or pay increases that may never materialize.

54. Given the risk of fraud or inflation on stated income loans, underwriters generally check stated incomes for reasonableness. However, even the best check for reasonableness is not as reliable as collecting a W-2 or tax return, and stated income loans are inevitably riskier than fully documented

loans. For this reason, as discussed above, the originator's guidelines generally imposed tighter restrictions on other characteristics of stated income loans, i.e., FICO score.

55. Other. These loans had documentation and characteristics similar to the ones above as delineated in underwriting guidelines of the originator.

## VII. THE RE-UNDERWRITING PROCESS

56. The process ("Process") utilized for reviewing and re-underwriting the loans in the Securitizations is presented in three parts. First, the methodology of Process, including the design of the survey ("Survey") employed in the re-underwriting of the loans, and the approaches to specific issues, including the determination of data and ratios, the review of stated incomes, the review of credit history, appraisals, and other documentation, the review of compensating factors, and the ultimate determination of whether a loan was materially defective in regards to the applicable underwriting guidelines, is presented. Second, re-underwriting personnel is described. Third, the categories of loan-level information captured by the Survey and the re-underwriting process are explained.

### FIRST: THE RE-UNDERWRITING PROCESS

57. Analytic Focus re-underwriters under my direction re-underwrote a sample of 1089 loans from the 1500 loans randomly selected by Professor

Bradford Cornell from among the loans included in the 392 Securitization loan pools ("Sample Loans"). The reasons that the other 411 randomly chosen loans were not re-underwritten are (1) that the underwriting guidelines by which 92 loans were originated and underwritten were not available/provided, (2) that 274 loan files[19] were not complete enough so that the re-underwriting could not be performed, and (3) that 45 loan files[20] were not provided.

58. The Analytic Focus re-underwriters, including myself, approached the Sample Loans by placing himself or herself in the shoes of a reasonable and responsible underwriter at the time the loans were made. We then evaluated those loans to determine whether they were appropriately approved under the applicable underwriting guidelines[21] and the appropriate Securitizations' ProSup[22] in force at the time each loan was originated. Analytic Focus re-underwrote the Sample Loans according to the information that the originating underwriting personnel had available, and did not attempt to review information outside the loan files, except to the extent that the analysis of the reasonableness of stated incomes was not supported, in which case, where appropriate, we considered generally recognized sources of statistical data on

[19] Due to time constraints for this re-underwriting, ResCap was not able to locate the complete loan files before the re-underwriting had to be completed.

[20] Due to time constraints for this re-underwriting, ResCap was not able to locate the complete loan files before the re-underwriting had to be completed.

[21] Based on the date the loan was originated.

[22] The review of ProSups was for limited purpose as explained in Section IV. B. of this Report

incomes. For each defect that was found, we evaluated whether it was genuinely material — that is, whether it increased the risk of the loan, and whether any compensating factors could be found to offset that increased risk.

59. Re-underwriting reviews similar to the one conducted here are a very common practice in the mortgage industry. Quality control departments, due diligence firms, and others regularly re-underwrite samples of loans in order to test the quality of the pools from which the samples were drawn, or to assess the soundness of the underwriting processes that created them. Purchasers or insurers of loan portfolios regularly re-underwrite random samples of loans to determine whether they were originated in accordance with applicable underwriting guidelines, representations, and warranties[23].

60. The scope and breadth of re-underwriting reviews conducted in the industry varies according to the purpose of a particular review, and according to the applicable underwriting guidelines, representations, and warranties. The re-underwriting Process conducted for the Sample Loans was narrowly tailored to identify material compliance with the ResCap Guidelines.

[23] Kider, Mitchel and Lisa M. Noel, **Handbook of Quality Control** (Washington, D.C.: Mortgage Bankers Association of America, 2002).

## The Survey

61. In designing this re-underwriting Process, we obtained and reviewed the ResCap Guidelines. Based on a review of some of the Sample Loans, the ResCap Guidelines, and the re-underwriters' experience as underwriters and re-underwriters, we constructed a survey (the "Survey") to assist in capturing information about the Sample Loans. The Survey was designed to capture information regarding the credit and collateral characteristics of the loans, such as CLTV, DTI, FICO, and credit history. The Survey was also designed to capture information regarding the procedures used to underwrite the loans, insofar as that could be determined from the loan files. For example, the Survey was designed to capture whether a loan was underwritten using automated underwriting system ("AUS"). For characteristics such as income, property value, CLTV, and DTI, the Survey was designed to capture both the correct percentage as calculated by re-underwriter based on applicable ResCap Guidelines, and also the percentage that was calculated by originator's underwriting personnel as the basis for the loan's approval. The Survey was also designed to capture information regarding any defects from ResCap Guidelines that were found in the Sample Loans.

62. The Survey took the form of an interactive online question-and-answer checklist, with 50 questions designed to capture information regarding each loan. It included a variety of question types that called for responses in

various formats, including multiple choice, text input, drop-down lists, numerical input, slider input, and simple yes/no input. Many of the 50 questions led to further sub-questions. The particular questions asked by the Survey depended on the nature of the particular loan. For example, the Survey asked for each loan whether it was originated under a Full Documentation or Stated Income program. If the re-underwriter answered that the loan was Stated Income, the Survey asked whether the borrower's stated income was reasonable in light of information in the file. If the re-underwriter answered that the loan was Full Documentation, the Survey asked whether the proper documentation was in the file, and whether the income was correctly calculated by the original underwriter based on that documentation.

63. The Survey captured key variables for each loan, including variables corresponding to some of the more common categories of defects. These are described in more detail in this Section under Determining Data and Ratios and Reviewing Documentation. A complete diagram of the Survey can be found as Appendix A to this Report.

Determining Data and Ratios and Reviewing Documentation

64. For each loan, the re-underwriter captured information on the values determined by the originating underwriter for key data points and ratios such as income, CLTV, and DTI. The re-underwriter also independently reviewed

the documentation in the loan file and determined the correct value for those ratios, to the extent possible. When determining the correct value for any loan characteristic, re-underwriters followed the methods set out in the applicable ResCap Guidelines in force at the time of each loan's origination.[24] Each Sample Loan was also reviewed to determine whether credit-relevant information was properly documented, in accordance with the requirements of the ResCap Guidelines conditions or exception conditions applicable to the loan.

65. The following chart, MATERIAL DEFECTS BY TYPE FOR THE 313 MATERIALLY DEFECTIVE LOANS, shows the number of times that a specific defect within the 313 materially defective loans ("MD LOANS") was cited by the re-underwriters:

[24] In some circumstances, there was not enough information in the file to recalculate the data.

**MATERIAL DEFECTS BY TYPE FOR THE 313 MATERIALLY DEFECTIVE LOANS**

| MATERIAL DEFECTIVE | FIRSTS | SECONDS & THIRD | TOTAL |
|---|---|---|---|
| **Underwriting standards** | 189 | 106 | 295 |
| **Original & genuine mortgage** | 11 | 6 | 17 |
| **Delinquent taxes, etc.** | 13 | 5 | 18 |
| **Rescission, etc.** | 0 | 0 | 0 |
| **Mortgage not satisfied, canceled, or subordinated** | 0 | 1 | 1 |
| **Missing income documents** | 18 | 26 | 44 |
| **DTI greater than guidelines** | 104 | 52 | 156 |
| **(C)LTV greater than guidelines max** | 31 | 13 | 44 |
| **(C)LTV greater than guidelines max due to negative amortization** | 0 | 0 | 0 |
| **Stated income unreasonable** | 14 | 3 | 17 |
| **Missing employment verification** | 40 | 29 | 69 |
| **Property does not meet guidelines** | 8 | 1 | 9 |
| **Credit score less than minimum required** | 13 | 6 | 19 |
| **Loan Amount greater than guidelines max** | 3 | 2 | 5 |
| **Derogatory or insufficient credit history** | 29 | 6 | 35 |
| **Inadequate verified reserves** | 47 | 14 | 61 |
| **Missing asset verification documentation** | 57 | 28 | 85 |
| **Missing approval documentation** | 91 | 44 | 135 |
| **TOTAL DEFECTS** | **668** | **342** | **1010** |
| **Average defects per loan** | 3.27 | 3.14 | |

66. While the re-underwriter independently assessed all aspects of each loan, the below discusses the approach to some of the key credit characteristics where recurring issues were found: CLTV, DTI (including review of stated incomes), reserves, and credit score/credit history.

(a) Combined Loan to Value Ratio

67. For the MD LOANS, 44 were found where originating underwriters failed to calculate CLTV correctly, usually resulting in a significant understatement of the loan's true CLTV.

(b) Debt to Income Ratio

68. In the Process, 156 MD LOANS were found that originating underwriting personnel failed to calculate DTIs correctly. Miscalculations of DTI occurred when originating underwriting personnel made errors such as failing to take into account debts that were documented in the file or double-counting items of income. As with CLTV, there were cases where the re-underwriter simply could not determine how originating underwriters arrived at their incorrect DTI figure or frequently, as discussed below, where originating underwriters accepted clearly unreasonable stated incomes. On each such loan, the re-underwriter calculated the correct DTI based on information in the file, and then determined whether the loan complied with ResCap Guidelines based on that correct DTI.

(c) Review of Stated Incomes.

69. The ResCap Guidelines at the time of origination required underwriters to check incomes for reasonableness, but provided no practical guidance on how to do so. Analytic Focus developed an approach to reviewing the reasonableness of stated income based on its underwriters and on the Industry norms for determining whether an income was reasonable. A stated

income was not considered to be unreasonable unless, in light of third-party data on income ranges and the credit and asset profile of the borrower, the income was plainly so improbable that a reasonable and responsible underwriter could not have approved it without requiring further documentation.

70. Underwriters in the Industry generally looked to whether the income was consistent with the normal range of incomes for a borrower's occupation, taking into account factors such as the borrower's length of employment and location. In some cases, it would be clear to an underwriter that an income was reasonable given the profession. In more difficult cases, such as where the normal range of incomes was unknown, where the borrower's income appeared high, or where the loan was at a high DTI, underwriters generally looked to an outside source of data on incomes to inform his judgment.

71. Several such sources are available to underwriters, such as, the Bureau of Labor Statistics of the U.S. Department of Labor ("BLS").[25] The BLS website maintains statistics on the range of incomes for a wide and detailed list of professions and locations, by year. The website is free and quick to use, and was available to and used by underwriters from 1997 onwards.[26] The "Salary.com" website was another commonly used source of data to verify

[25] "The Bureau of Labor Statistics of the U.S. Department of Labor is the principal Federal agency responsible for measuring labor market activity, working conditions, and price changes in the economy. Its mission is to collect, analyze, and disseminate essential economic information to support public and private decision-making." http://www.bls.gov/bls/infohome.htm (last visited April 23 2011).

[26] http://www.bls.gov/oes/oes_data.htm.

income during the 2004-2007 period. Statistics from these and similar sites can be used to determine the median income for the borrower's profession, and the potential range, often up to the $75^{th}$ or $90^{th}$ percentile of incomes for that profession.

72. When reviewing a stated income loans, the Analytic Focus underwriter selected the closest possible BLS-listed occupation to the occupation listed by the borrower on the application, and looked for income ranges in the borrower's location where possible. The underwriter assumed that the borrower's occupation was the highest-earning occupation consistent with whatever information was on the application and then checked whether the borrower's income was significantly in excess of the range of borrower incomes for his or her occupation. Where a reasonable income was calculated as part of the re-underwriting, the BLS range most appropriate to the borrower's level of experience in the industry was used, which usually ranged between the 50th and 90th percentiles. How far an income might be in excess of the normal BLS range before triggering a flag would depend on the borrower's experience and on the nature of the occupation, *e.g.* some professions have more variability in incomes than others. Where a re-underwriter was unsure whether an income was out of line with the plausible range of incomes for a particular borrower, a group of re-underwriters met to discuss the file, bringing to bear the experience and judgment of multiple underwriters.

73. For the 17 MD LOANS where a stated income was deemed to be unreasonable, as described above, the underwriter attempted to determine a more reasonable income for the borrower based on BLS data and other information. This was necessary in order to determine the extent of the income inflation, and therefore whether the borrower's actual DTI materially exceeded ResCap Guidelines. An unreasonable income was generally assumed to be an amount in excess of 125% of the $90^{th}$ percentile for the borrower's occupation. Where the borrower had little experience (less than one year) the re-underwriter used a lower figure, but in no case less than the median income for the borrower's occupation.

74. Where it was impossible to determine based on BLS data what the borrower's actual income could reasonably be from the evidence in the file (for example, where the borrower was self-employed and the file gave no indication of the nature of the borrower's business) the re-underwriter did not attempt to estimate the borrower's actual income. Where other evidence in the file contradicted the borrower's stated income, the re-underwriter, if possible, determined the borrower's actual income based on that evidence.

(d) Reserves

75. For each Sample Loan that required reserves, the re-underwriter also determined the borrower's level of reserves, and how those reserves were documented. For certain loan types, the applicable ResCap Guidelines required

a borrower to have liquid cash or cash equivalent reserves available after he had paid all down payment closing costs and prepaid expenses.

76. Reserves are important to assessing the risk of default because the requirement assures that the borrower has the present ability to service the loan, and has a financial cushion available should unforeseen financial problems, unexpected expenses, or temporary loss of income arise that might impede his ability to make the mortgage payments in timely fashion.

77. The applicable ResCap Guidelines also imposed requirements on the form that documentation of reserves must take. For example, reserves generally had to be documented by bank statements, VODs, retirement statements, or investment statements covering at least two months of the borrower's account history. This is an important requirement, as the documentation of assets must be reliable and a snapshot of the borrower's accounts may not reflect the borrower's stable asset profile.

78. Of the 313 MD LOANS, 61 loans were founded to have not fulfilled this underwriting requirement.

(e) Review of Credit Score/Credit History

79. For each loan, the re-underwriter reviewed the borrower's credit score and credit history, to determine compliance with applicable ResCap Guidelines and to assess the loan's risks and compensating factors. In keeping

with originating ResCap Guidelines and standard underwriting practice, the re-underwriter reviewed the borrower's credit score and the borrower's credit history more generally.

80. Credit scores, which are developed by using statistical methods to evaluate information that has proven to be predictive of loan performance, are numerical values that rank individuals according to their credit risk at a given point in time. Although many types of credit scoring models exist, most originators primarily used the classic FICO credit score. The FICO score "rank-orders" applicants according to the likelihood that they will default in the future, with higher scores being indicative of a lower default risk and lower scores being indicative of a greater default risk.

81. Applicable ResCap Guidelines also required (again, unless an exception was justified on a particular loan) that the borrower have a certain minimum amount of credit history – two years – and a minimum number of trade lines. A trade line is a line of credit such as a credit card, car loan, or mortgage. These requirements are also standard in the industry. They help to ensure that the borrower's credit score and report are based on enough information to be useful in predicting the borrower's ability and willingness to handle mortgage debt.

82. Of the 313 MD LOANS, 19 loans were founded to have not fulfilled this underwriting requirement.

(f) Review of Appraisals.

83. An appraisal is typical, but not always, performed in connection with the underwriting of a mortgage loan. An appraisal helps confirm the loan's LTV and CLTV.

84. Analytic Focus was not asked to re-appraise any property, or to review appraisals for reasonableness. However, consistent with originating ResCap Guidelines and with standard underwriting and re-underwriting practice, Analytic Focus looked to see whether the appraisals conformed to the requirements for the Industry. All the Sample Loans meet the appraisal requirements set forth in the ResCap Guidelines.

(g) The Standard of Review: Material Compliance with Applicable ResCap Guidelines

85. The underwriters checked each loan for material compliance with the parameters of the applicable ResCap Guidelines. If the loan was outside of applicable ResCap Guidelines at the time the loan was originated, whether because an exception had been granted or because of a defect in calculation that caused a loan to be outside of ResCap Guidelines, the re-underwriter determined whether the ResCap Guidelines allowed compensating factors that offset the deviation(s).

86. For CLTV and DTI ratios, even in the absence of identifiable compensating factors, the re-underwriter did not consider a loan to be materially defective because of merely *de minimis* excess over ResCap Guidelines, generally less than 1 or 2%, although as the risk of the loan increased, *i.e.*, as DTI approached 50 and CLTV approached 100, the re-underwriter had a lower tolerance.

87. In every case where the re-underwriter found that a document required by the ResCap Guidelines was missing, the re-underwriter determined whether its presence was genuinely important to the assessment of the credit risk of the loan. For example, many of the loans lacked the verification of employment required by ResCap Guidelines or conditions, but the underwriter determined whether the substance of the information the VOE should contain could be found elsewhere in the file. On a loan with income documentation, where the file contains W-2s and pay-stubs from which the borrower's employment status can be determined, the re-underwriter did not consider lack of a VOE to be cause for considering a loan materially defective, so long as W-2s or pay-stubs were present. On a stated income loan, however, verification of employment is a critical safeguard against fraud and inflation of income, and the absence of a required VOE in the form of a verbal verification is likely to be (absent other compensating factors) a significant defect.

(h) The Standard of Review: Review of AUS Conditions

88. Some of the loans were underwritten and generated directly by ResCap or generally reviewed by ResCap before purchasing the loan(s) from third parties with the assistance of its own automated underwriting system[27] ("AUS") that underwrote or re-underwrote the loans via automated underwriting programming. The AUS could place conditions on the approval of loans, typically requiring additional documentation.

(i) The Standard of Review: Review of Documentation

89. Many of the credit criteria discussed above involve the collection of some form of documentation. This is a critical aspect of the underwriter's role. Automated underwriting systems do not do away with the need for human beings to make sure that all credit-related documentation is present and correct. Depending on the loan, originating underwriting personnel were required by ResCap Guidelines (and by Industry norms of responsible underwriting) to collect evidence of borrower income, verifications of employment or assets, credit reports, appraisals, letters of explanation of derogatory credit activity, evidence that collection accounts had been paid, or other documentation. Documentation relevant to the underwriting of the loan should have been collected, reviewed, and maintained in the loan file.

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[27] Examples of similar automated underwriting systems ("AUS") commonly used in the Industry are Fannie Mae's Desktop Underwriter® and Freddie Mac's Loan Prospector®.

90. In our review of the loan files, we checked whether all the documentation required by the applicable ResCap Guidelines was present and correct. The required documents, in fact, were frequently missing, so that evidence relevant to the underwriting of the loan, such as evidence of the borrower's assets or an appraisal evidencing the value of the property, was missing. When determining whether a particular missing document (or combination of missing documents) rendered a loan materially defective, we evaluated whether compensating factors offset the risk of the missing documentation or whether other evidence in the file provided the necessary information to support the underwriting of the loan.

(j) The Standard of Review: Review of Compensating Factors.

91. The re-underwriters reviewed all loans for compensating factors, which could be employed as approval by originating underwriting personnel, who would approve the deviations based on the compensating factors listed in the ResCap Guidelines.

(k) The Standard of Review: "Materially Defective per the ResCap Guidelines"

92. The materiality of a defect/exception ("Material Defect") within an individual Sample Loan is defined in this Report and the Industry as:

93. The “materiality[28]” is understood in the industry to connote that the loan’s ex-ante deviation from the terms of the underwriting guidelines, representations, and warranties must materially increase the loan’s credit risk for default or loss as of the time of the origination. The materiality provision protects the seller from being forced to litigate repurchase demands over trivialities, while ensuring that the purchaser gets the risk it bargained for. Underwriting is complex and in any large pool of loans there is likely to be loans that have technical underwriting defects that ultimately matter very little to the credit risk of the loans. The materiality requirement ensures that sellers are not liable for mere technicalities. Underwriting mortgage loans as well as purchasing and insuring mortgage loans is about risk and probability. A defect is material to a loan, and to the interests of the holder of the loan, if it significantly and negatively affects the loan’s risk and probability of default. The Industry would consider a defect in a loan to materially and adversely affect the investor’s interest in that loan, if and only if, based on my experience and judgment as an underwriter/repurchaser, a

[28] Black’s Law Dictionary on page 450 defines material as: “of such a nature that knowledge of the item would affect a person’s decision-making; significant; essential.” Barron’s Dictionary of Finance and Investment Terms on page 354 defines materiality as: “Material information is information the reasonable investor needs to make an informed decision about an investment.” In its Statement of Financial Accounting Concepts No. 2, the FASB stated the essence of the concept of materiality as follows: “The omission or misstatement of an item in a financial report is material if, in the light of surrounding circumstances, the magnitude of the item is such that it is probable that the judgment of a reasonable person relying upon the report would have been changed or influenced by the inclusion or correction of the item. (FASB, Statement of Financial Accounting Concepts No. 2, Qualitative Characteristics of Accounting Information ("Concepts Statement No. 2"), 132 (1980). See also Concepts Statement No. 2, Glossary of Terms - Materiality.)

responsible underwriter would consider that defect to significantly increase the ex ante risk that the loan would default.

94. Ultimately, once the re-underwriter had reviewed all documentation for a loan, recalculated all of the loan's credit characteristics, identified any deviations from ResCap Guidelines, and analyzed whether the loan had any compensating factors sufficient to offset the risk of any deviations, he/she reached the final overall loan assessment: whether the loan as a whole was Materially Defective per the ResCap Guidelines ("Materially Defective"), Investment Quality With Underwriting Violations, or Investment Quality With No Defectives. Analytic Focus re-underwriters concluded that a loan was Materially Defective if the loan had one or more defects of ResCap Guidelines and such defect(s) considered in the context of the loan as a whole and giving consideration to any potential compensating factors, materially increased the risk of the loan relative to a loan that complied with the ResCap Guidelines.

**SECOND: RE-UNDERWRITING PERSONNEL**

95. Twenty re-underwriters (including myself) evaluated the loan files in this case. Together, our group possessed over 250 combined years in residential mortgage underwriting.

96. Upon receiving the loan files for the Sample Loans, each re-underwriter was assigned loans on a random basis. Quality control or second-

level review testing was performed on more than 12%[29] of the loans. The re-underwriters generally each re-underwrote 3 to 4 loan files a day.

**THIRD: INFORMATION CAPTURED BY THE SURVEY**

97. Characteristics of the Loan. The Survey captured information including the loan's date of origination, face amount, documentation type, and rate and payment information, the originator of the loan, and occupancy. The Survey also captured information on the borrower's credit score and other credit information, including any derogatory credit information in the file. The Survey captured characteristics such as LTV, CLTV, and DTI, including the values determined by the originating underwriter and/or recorded in the AUS or on the loan schedule, and the correct values, based on evidence in the file and determined in accordance with applicable ResCap Guidelines. A complete diagram of the Survey, showing all questions, is attached as Appendix A.

98. Information on Defects. After the re-underwriters completed their review of the loan file, identifying all relevant credit characteristics of the loan,

[29] Of this 12%, I personally underwrote 16.67% of it. Twenty-eight of the Sample Loans were randomly selected and provided me even before these Sample Loans were re-underwritten by Analytic Focus. In October 2012, I reviewed and/or re-underwrote these 28 loans, determining that 18 loans were investment grade loans, 5 were materially defect loans, 4 were incomplete loan file which could not be re-underwritten due to lack of information, and 1 loan that the underwriting guidelines were not available. After determining whether these 23 re-underwritten loans were investment grade loans or materially defect loans, I compared my determinations with the Analytic Focus re-underwriters' determinations regarding these in November 2012. Analytic Focus' and my determinations were the same for each of the loans. The specific 28 Sample Loans that I reviewed and/or re-underwrote were 0003733755, 0005710502, 0006352872, 0008968182, 0437118292, 0437352917, 0899001529, 1115001470, 7303077978, 7304034994, 7304104367, 7304167901, 7304215288, 7304223084, 7304474117, 7304890957, 7305134306, 7305284507, 7305613754, 7305874851, 7392156139, 7420872327, 7422858100, 7423043769, 7423260744, 7423308824, 7423321637, and 8000006072.

and all defects and compensating factors, they selected as many as were applicable among 18 variables or "conclusion tags." These conclusion tags were designed to capture information on broad categories of violations of the ResCap Guidelines, in order to assist with the analysis of defect rate trends in the Securitizations. The tags cover some of the most common categories of potential underwriting defects.

99. Some of these tags are:

- "DTI exceeds ResCap Guidelines when correctly calculated." This tag was selected this tag whenever the loan's debt-to-income ratio, correctly calculated in accordance with ResCap Guidelines, exceeded the applicable ResCap Guidelines limit.
- "Stated income unreasonable, contradicted by materials in underwriting files, etc." This tag was when a loan had a stated income that was unreasonable or inconsistent with other information in the file. Where it was clear that the use of a more reasonable stated income would result in a DTI in excess of ResCap Guidelines, Analytic Focus also tagged "DTI exceeds ResCap Guidelines when correctly calculated."
- "Missing income documentation required by ResCap Guidelines." The re-underwriters selected this tag whenever any income

documentation required by the applicable ResCap Guidelines or by a condition was missing.

- "CLTV exceeds ResCap Guidelines maximum when correct value used for property." This tag was when the loan's CLTV (unadjusted for negative amortization potential) exceeded the applicable ResCap Guidelines maximum.
- "CLTV exceeds ResCap Guidelines maximum value when negative amortization potential is properly calculated." Where a second lien is behind a negatively amortizing first lien, the ResCap Guidelines may impose limits on the loan's CLTV adjusted for the negative amortization potential of the first. This tag was selected when the loan's adjusted CLTV exceeded those levels.
- "Loan amount in excess of ResCap Guidelines maximum." All Sample Loans were subject to maximum loan amounts under the ResCap Guidelines. Analytic Focus selected this tag when the loan amount exceeded any applicable loan amount maximum.
- "Insufficient credit history." This tag was selected when the borrower did not have sufficient credit history per ResCap Guidelines or conditions, meaning either (1) that the borrower did not have the required depth of credit history (months of history, or number of tradelines), or (2) that there was no credit history in the file, or (3) that the borrower's credit history in the file showed

derogatories such as late payments or bankruptcies in excess of the amount permitted by applicable ResCap Guidelines or conditions.

- "Missing residence history." ResCap Guidelines or a condition may require that the file contain documentation of the borrower's residence history, including his or her history of rental/mortgage payments. This tag was selected this box when the borrower did not have sufficient documentation in the file to verify residency requirements.
- "Credit score does not meet minimum requirements set by ResCap Guidelines." This tag was selected this tag when the borrower's credit score did not meet the requirements of the borrower's loan program under the applicable ResCap Guidelines or conditions.
- "Missing 3rd Party VOE." This tag was selected this tag when the loan file did not contain a VOE for an employed borrower as required by the ResCap Guidelines or a condition.
- "Missing evidence of self-employment." This tag was selected this tag when the loan file did not contain the proper evidence of self-employment for a self-employed borrower as required by ResCap Guidelines or a condition.

- "Property type does not meet ResCap Guidelines." This tag was selected this tag when the loan was on a property type ineligible for the loan's program under the applicable ResCap Guidelines.
- "Inadequate verified reserves." This tag was used to indicate the loan lacked the required amount of verified assets, and "missing asset verification documentation" tag was indicated when the form of the documentation in the file, if any, did not comply with ResCap Guidelines. Where the file contained documentation of assets in an amount equal to ResCap Guidelines requirements, but in a form that did not comply with ResCap Guidelines, the re-underwriter would analyze whether the defect was sufficiently substantial such that the documentation could not be relied on to verify the borrower's reserves. If the documentation could not be relied on to verify the borrower's reserves, Analytic Focus would select both tags. If the defect was relatively minor, so that the documentation could be used to verify the borrower's assets, "missing asset verification documentation" was selected, but "inadequate verified reserves" would not be selected.
- "Missing asset verification documentation." Where ResCap Guidelines required asset documentation, the ResCap Guidelines imposed certain requirements on the form that documentation must take, to ensure that it was reliable and showed the borrower's

stable asset profile. For instance, asset documentation must generally cover at least two months' of the borrower's asset history. This tag was selected when asset documentation was required, and the form of the documentation in the file did not conform to the requirements of the ResCap Guidelines, or where there was no documentation at all.

- "Missing first lien note." This tag was selected when the loan file was missing a copy of the first mortgage note, which is used by underwriters to determine the DTI of the second and the potential for negative amortization on the first.
- "Missing Compensation Factor Approval." This tag was selected if the file did not contain documented approval of the compensation factor.
- The "Materially Defective of ResCap Guidelines." At the end of the review of each loan, the re-underwriter used the conclusion tag, "There were no material factors affecting the investment quality of this loan," to summarize our conclusions as to the credit analysis of the loan, including all compensating factors. Where Analytic Focus determined that a loan was Materially Defect of ResCap Guidelines, Analytic Focus did not select this tag.

## VIII. OPINIONS

100. The following opinions are based on documents available and provided through December 3, 2012. Therefore, additions, refinements, enhancements, and/or further support for these opinions may be developed upon review of future material and depositions. Each explanation supporting the opinions may be supplemented by further analysis or explanation. Additional opinions, moreover, may be developed based on any further discovery or document production. I also reserve the right to provide additional explanation to rebut opinions and testimony that is given by other expert(s).

101. The opinions set forth in this expert report are not, nor are they intended to be, legal opinions, but are based on my knowledge, skill, training, education, and experience in the Industry. However, the opinions may include how established laws are implemented and function within the Industry. Likewise, words used in the opinions are as the Industry characterizes and uses them.

102. The purpose of the opinions is solely to assist the trier of fact by explaining and employing my specialized knowledge including applications of financial institution industry parameters, norms and standards including lending cultures, definitions, generally accepted practices of prudent lenders, application of laws, procedures and policies for financial institutions, underwriting of loans, servicing of loans, as well as others, regarding the facts of this case.

### A. OPINION ONE: SAMPLE POOL

**Based on the Industry, the documents in Exhibit C, references, and/or my own experience, my opinion is that the Sample Pool, as delineated below, was appropriately and objectively re-underwritten employing the ResCap Guidelines while applying Industry parameters, norms, and standards, if necessary.**

103. Although not all-inclusive, the following information supports this opinion:

104. See Section IV, V, VI, and VII of this Report.

105. The Sample Loans of 1089 mortgage loans were distributed across the Securitizations. These loans were the result of a sampling on a random basis by Professor Bradford Cornell, PHD. (See Expert Report of Bradford Cornell.) The following two charts show the number of Firsts and Seconds re-underwritten by Securitization shelves, series, and year.

106. As shown in the FIRST MORTGAGES RE-UNDERWRITTEN BY SHELVES chart, 701 re-underwritten Firsts were re-underwritten covering all 8 Securitization shelves with RASC, RAMP, and RALI having subtotals of loan re-underwritten of 187, 188, and 212 respectively within the Sample Pool.

**FIRST MORTGAGES RE-UNDERWRITTEN BY SHELVES**

| SHELVES | SERIES | 2004 | 2005 | 2006 | 2007 | TOTAL |
|---|---|---|---|---|---|---|
| | | | | | | |
| RFMSII | HSA, HS, HI | 2 | 2 | 3 | 2 | 9 |
| RFMSI | SA, S | 9 | 13 | 13 | 7 | 42 |
| RASC | KS, EMX, AHL | 66 | 55 | 54 | 12 | 187 |
| RAMP | SL, RZ, RS, NC, EFC | 82 | 58 | 44 | 4 | 188 |
| RALI | QS, QO, QH, QA | 23 | 54 | 96 | 39 | 212 |
| RAAC | SP | 0 | 1 | 1 | 4 | 6 |
| GMACM-RAMP | J, HLTV, HE, GH, AR, AF, AA | 13 | 10 | 5 | 2 | 30 |
| OTHER | KR, RP | 16 | 4 | 3 | 4 | 27 |
| | | 211 | 197 | 219 | 74 | 701 |

**SECOND/THIRD MORTGAGES RE-UNDERWRITTEN BY SHELVES**

| SHELVES | SERIES | 2004 | 2005 | 2006 | 2007 | TOTAL |
|---|---|---|---|---|---|---|
| | | | | | | |
| RFMSII | HSA, HS, HI | 31 | 26 | 39 | 36 | 132 |
| RFMSI | SA, S | 0 | 0 | 0 | 1 | 1 |
| RASC | KS, EMX, AHL | 4 | 8 | 3 | 2 | 17 |
| RAMP | SL, RZ, RS, NC, EFC | 0 | 2 | 1 | 0 | 3 |
| RALI | QS, QO, QH, QA | 1 | 0 | 2 | 1 | 4 |
| RAAC | SP | 0 | 1 | 0 | 1 | 2 |
| GMACM-RAMP | J, HLTV, HE, GH, AR, AF, AA | 50 | 51 | 100 | 26 | 227 |
| OTHER | KR, RP | 0 | 0 | 1 | 1 | 2 |
| | | 86 | 88 | 146 | 68 | 388 |

107. As shown in the SECOND/THIRD MORTGAGES RE-UNDERWRITTEN BY SHELVES chart, 388 re-underwritten seconds/thirds were re-underwritten covering all 8 Securitization shelves with RMSFII and GMACM-

RAMP having subtotals of loans re-underwritten of 132 and 227 respectively within the Sample Pool.

108. The following chart SAMPLE LOANS DOCUMENTATION TYPES BY DOLLAR AMOUNT gives the dollar amounts of Sample Loans by types of loan documentation — Full, Alt, NIVA, NIVANE, SISA, SIVA, No Doc, and Other —, by mortgage position — Firsts or Seconds/Thirds —, and by the investment quality determinations — Investment Quality No Defects, Investment Quality with Underwriting Violations, or Materially Defective.

**SAMPLE LOANS DOCUMENTATION TYPES BY DOLLAR AMOUNTS**

| | MATERIALLY DEFECTIVE | | INVESTMENT QUALITY WITH UNDERWRITING VIOLATIONS | | INVESTMENT QUALITY NO DEFECTS | | |
|---|---|---|---|---|---|---|---|
| DOC TYPE | FIRSTS | SECONDS & THIRDS | FIRSTS | SECONDS & THIRDS | FIRSTS | SECOND & THIRDS | **TOTAL** |
| FULL | **$18,171,605** | **$3,413,027** | **$17,144140** | **$4,054,264** | **$34,954,540** | **$7,418,646** | **$85,156,222** |
| ALT | **1,602,525** | **77,600** | **922,150** | **92,700** | **1,148,450** | **100,000** | **3,943,425** |
| NINA | **602,100** | **229,000** | **0** | **66,000** | **2,088,200** | **18,750** | **3,004,050** |
| NIVANE | **0** | **0** | **0** | **0** | **1,021,400** | **0** | **1,021,400** |
| NIVA | **955,600** | **67,000** | **2,063,648** | **61,500** | **2,414,100** | **92,400** | **5,654,248** |
| SISA | **2,627,050** | **418,000** | **3,309,125** | **344,380** | **7,969,550** | **1,562,600** | **16,230,705** |
| SIVA | **13,525,487** | **618,308** | **10,662,888** | **865,825** | **22,387,630** | **340,600** | **48,400,738** |
| NO DOC | **0** | **0** | **520,980** | **0** | **2,699,575** | **0** | **3,220,555** |
| OTHER | **4,703,691** | **147,100** | **3,267,400** | **128,180** | **1,580,025** | **87,000** | **9,913,396** |
| TOTAL | **42,188,058** | **4,970,035** | **37,890,331** | **5,612,849** | **76,263,470** | **9,619,996** | **176,544,739** |

109. Utilizing this chart and the previous charts, the following can be discerned about the 1089 Sample Loans totaling $176,444,739:

- 701 were Firsts totaling $156,341,859 with an average First of $223,027.
- 388 were Seconds/Thirds totaling $20,316,900 with an average size of $52,363.
- The $4,970,035 materially defective Seconds/Third is 24.60% of the Total Sample Seconds/Thirds.
- Full Doc loans were 48.23% of the Sample Loans by dollar amount.
- NINA, NIVA and NIVANE Doc types totaled 5.48% of the Sample Loans by dollar amount.
- SISA and SIVA Doc types totaled 36.61% of the Sample Loans by dollar amount.
- The remaining Doc types were 9.67% of the Sample Loans by dollar amount.

110. The following chart SAMPLE LOANS DOC TYPES BY NUMBER RE-UNDERWRITTEN lists the breakdown by the numbers of Sample Loans re-underwritten by documentation types in the three investment quality categories — Materially Defective Loans, Investment Quality with Underwriting Violations, Investment Quality with No Defects — while also showing the number of re-underwritten Firsts and Seconds/Thirds for all the Sample Loans.

## SAMPLE LOANS DOC TYPES BY NUMBER RE-UNDERWRITTEN

| | MATERIALLY DEFECTIVE | | INVESTMENT QUALITY WITH UNDERWRITING VIOLATIONS | | INVESTMENT QUALITY NO DEFECTS | | |
|---|---|---|---|---|---|---|---|
| | FIRSTS | SECONDS & THIRD | FIRSTS | SECONDS | FIRSTS | SECOND | **TOTAL** |
| FULL DOC | **111** | **78** | **84** | **76** | **177** | **144** | **670** |
| ALT DOC | **8** | **3** | **5** | **2** | **8** | **1** | **27** |
| NINA | **3** | **4** | **0** | **1** | **8** | **1** | **17** |
| NIVANE | **0** | **0** | **0** | **0** | **5** | **0** | **5** |
| NIVA | **3** | **2** | **12** | **1** | **11** | **2** | **31** |
| SISA | **14** | **7** | **16** | **6** | **34** | **18** | **95** |
| SIVA | **53** | **10** | **37** | **15** | **65** | **7** | **188** |
| NO DOC | **0** | **0** | **3** | **0** | **14** | **0** | **17** |
| OTHER | **12** | **5** | **10** | **3** | **8** | **2** | **39** |
| SUBTOTALS | **204** | **109** | **167** | **104** | **330** | **175** | **1089** |

111. A review of the above chart shows the following:

- ♦ 670 [61.5%] Sample Loans were Full Doc loans. Of these, 372 were Firsts and 298 were Seconds/Thirds.
- ♦ 293 [26.9%] were SISA and SIVA Doc loans. Of these, 230 were Firsts and 63 were Seconds/Thirds.
- ♦ 126 [11.6%] were Alt, NINA, NIVA, NIVANE, No Doc, or Other Doc loans. Of these, 99 were Firsts and 27 were Seconds/Thirds.

## B. OPINION TWO: MATERIALLY DEFECTIVE LOANS

**Based on the Industry, the documents in Exhibit C, references and/or my own experience, my opinion is that, of the 1089 Sample Pool, 313 loans or 28.74% of the 1089 loans in the Sample Pool were Materially Defective Loans with a breakdown of 204 Firsts and 109 Seconds/Third.**

112. Although not all-inclusive, the following information supports this opinion:

113. The following chart presents a breakdown of the MD LOANS by Doc Type as determined in the re-underwriting Process.

**MD LOANS BY DOC TYPE**

| | FIRSTS | SECONDS & THIRD |
|---|---|---|
| FULL DOC | **111** | **78** |
| ALT DOC | **8** | **3** |
| NINA | **3** | **4** |
| NIVANE | **0** | **0** |
| NIVA | **3** | **2** |
| SISA | **14** | **7** |
| SIVA | **53** | **10** |
| NO DOC | **0** | **0** |
| OTHER | **12** | **5** |
| SUBTOTALS | **204** | **109** |

114. The chart MATERIAL DEFECTS BY TYPE FOR THE 313 MATERIALLY DEFECTIVE LOANS presents a breakdown of the MD LOANS by occurrences of each specific defect as determined in the re-underwriting

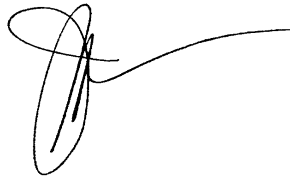
Process. It shows the number of Firsts, Seconds/Third, and total material defects within the MD LOANS that (a) the re-underwriting Process determined, (b) the number of times that each material defect occurred, and (c) the average defects of 3.27 for Materially Defective Firsts and 3.14 defects for Materially Defective Seconds/Third.

**MATERIAL DEFECTS BY TYPE FOR THE 313 MATERIALLY DEFECTIVE LOANS**

| MATERIAL DEFECTIVE | FIRSTS | SECONDS & THIRD | TOTAL |
|---|---|---|---|
| **Underwriting standards** | 189 | 106 | 295 |
| **Original & genuine mortgage** | 11 | 6 | 17 |
| **Delinquent taxes, etc.** | 13 | 5 | 18 |
| **Rescission, etc.** | 0 | 0 | 0 |
| **Mortgage not satisfied, canceled, or subordinated** | 0 | 1 | 1 |
| **Missing income documents** | 18 | 26 | 44 |
| **DTI greater than guidelines** | 104 | 52 | 156 |
| **(C)LTV greater than guidelines max** | 31 | 13 | 44 |
| **(C)LTV greater than guidelines max due to negative amortization** | 0 | 0 | 0 |
| **Stated income unreasonable** | 14 | 3 | 17 |
| **Missing employment verification** | 40 | 29 | 69 |
| **Property does not meet guidelines** | 8 | 1 | 9 |
| **Credit score less than minimum required** | 13 | 6 | 19 |
| **Loan Amount greater than guidelines max** | 3 | 2 | 5 |
| **Derogatory or insufficient credit history** | 29 | 6 | 35 |
| **Inadequate verified reserves** | 47 | 14 | 61 |
| **Missing asset verification documentation** | 57 | 28 | 85 |
| **Missing approval documentation** | 91 | 44 | 135 |
| **TOTAL DEFECTS** | **668** | **342** | **1010** |
| **Average defects per loan** | 3.27 | 3.14 | |

## IX. STATEMENT REGARDING NATURE OF LETTER REPORT

115. Matters set forth herein are final in nature. As additional information, such as the depositions and other documents, is completed and obtained, the opinions and statements set forth herein could be supplemented or be refined as well as other opinions developed.



J F. “Chip” Morrow

**EXHIBIT A**

# J F. "CHIP" MORROW

**CONSULTANT/EXPERT WITNESS**
**FINANCIAL INSTITUTION/REAL ESTATE/MORTGAGE**

Nationwide from San Antonio, Texas
Phone (866) 365-7212 ~ Webpage: jfmorrow.com ~ E-mail: fmorrow@earthlink.net

## QUALIFICATIONS

- 40+ yrs. management experience for financial institutions & businesses.
- 40+ yrs. Residential, commercial, construction, mortgages, business, and consumer lending.
- 17+ yrs. President, C.E.O. and/or director of financial & mortgage institutions.
- 15+ yrs. of leadership in state and national financial institution trade associations.

## WORK HISTORY

October 1995
To present

*Executive, Consultant, Expert Witness, B & F Experts*
*San Antonio, TX*

Engaged by various financial institutions, businesses, attorney firms, individuals, and other clients regarding financial, business, real estate, mortgage, and/or other matters including mortgage underwriting and servicing. Clients have included Fannie Mae as well as other major originators and servicers.

April 1998
To February 2000

*Senior Vice President, Preferred Bank*
*Los Angeles, CA*

As a Member of Senior Management, responsible for real estate construction, mortgage, business and international loans and deposits business as well as compliance issues and lending matters.

June 1995
To April 1998

*Consultant, First Regional Bank*
*Century City, CA*

Involved in real estate construction, mortgage, business and international loans and deposits as well as compliance issues and lending matters.

June 1990
To June 1997

*Founder & Director, ICBA Mortgage Co.*
*Arlington, VA*

Monitored planning, policies, contracts and marketing for this company that provided residential mortgages for SFR and manufactured housing through over 1000 financial institutions in all 50 states.

November 1994
To November 1995

*Organizer, Pacific Coast Bankers' Bank (In Organization)*
*San Francisco, CA*

Researched, generated and submitted marketing study, business plan, capital plan, loan and operations policies and procedures for submission to the various financial institution regulators for this proposed correspondent bank owned/operated by independent banks.

April 1983
To October 1994

*Founding President, Chief Executive Officer & Director*
*Marathon National Bank & Bancorp, Los Angeles, CA*

Started the bank and holding company and had full management responsibilities from 1983 until leaving. Started, managed and oversaw a mortgage company. Underwrote, funded, serviced and sold into the secondary market mortgage loans. Mortgage loan accommodations included construction, mortgage, warehouse lines and table funding. Wrote, developed and implemented all loan, operation, compliance, administration, internal audit policies, procedures, documentation and systems. Chairman of Director Loan Committee and member of all other committees.

January 1982
To March 1983

*Regional Vice President, The Bank of Orange County*
*Fountain Valley, CA*

Member of Senior Management and Loan Committee. Underwrote, funded and serviced mortgage loans. Mortgage loan accommodations included construction, mortgage, and warehouse lines. Duties included management of operations and lending for the Los Angeles County.

August 1977
To January 1982

*Vice President, Imperial Bank*
*Inglewood, CA*

*Assistant Credit Administrator* administered 17-branches, bank-wide loan portfolio including commercial/residential real estate, business, and international loans. *Manager-East San Fernando Valley* managed $45 million branch. Underwrote, funded and serviced mortgage loans. Mortgage loan accommodations included construction, mortgage and warehouse lines.

June 1967
To August 1977

*Assistant Vice President, Bank of America*
*Los Angeles Area*

Held various lending, management and operation positions. Underwrote, funded and serviced mortgage loans.

## EDUCATION

- Certificate, Pacific Coast Banking School, Univ. of Washington, 1982
- All training courses related to lending given by Bank of America, 1971-1977
- Post-graduate work, University of California, Los Angeles, 1973, 1974
- Bachelor of Science, University of California, Los Angeles, 1970

## EXPERT WITNESS

- Over 17+ years of expert witness experience including testimony before government committees/agencies, Federal, Bankruptcy, IRS and State courts.
- Worked both for defendants and plaintiffs: financial institutions, commercial entities and individuals including FannieMae, State of California and F.D.I.C.
- Qualified in court for mortgage, business, construction, real estate lending as well as mortgage underwriting, funding and servicing, escrow and broker duties to a financial institution, secondary market purchasing, mortgage warehouse lending, lender liability, operations, others.

## PUBLISHED ARTICLES

- "So that's What Commercial Lending Is!" The Roar Newsletter, Imperial Bank.
- "Need a Loan....Learn to Think Like a Banker", Marathon National Bank Newsletter.
- "International Entrepreneurship: A New Growth Area", New Management.

- "Arbitration: A Legal System that Makes Banking Sense", American Arbitration Association Regional Reporter, (co-author).
- "Arbitration: Working in Banking", American Arbitration Association Regional Reporter, (co-author).
- "Basic Characteristics and Life of Residential Mortgage Loans", HGExperts.com.

## SPEECHES

- "Bankers' First Ten Considerations about Small- to Mid-Sized Business Loans", Presentation to various business and civic organizations.
- "Ratios and Guidelines: What You Should Expect from Your Banker", Presentation to various business and civic organizations.
- "Arbitration in Banking", Presentation to various banks and trade organizations
- "What Makes a Premier Performing Bank," Presentation to various banks.
- "Debts and Taxes", panelist, Southern California Chapter American Academy of Matrimonial Lawyers.
- Various presentations as a guest lecturer at Pepperdine University and USC.
- Many others.

# EXHIBIT B

## DEPOSITIONS AND/OR COURT TESTIMONIES IN LAST FOUR YEARS

| CASE (CLIENT CAPITALIZED) | CASE NUMBER | LOCATION |
|---|---|---|
| Columbia Housing/PNC Institutional Fund XX, et al. v. **ALMOND TREE SENIOR APARTMENTS, LP, ET AL.** | BC 405925 | Superior Court Los Angeles Cty., CA |
| **AMBOY NATIONAL BANK** v. Oakshire Group, LLC, et al | F 26204-07 | Superior Court, Chancery Div., Monmouth Cty., NJ |
| **ESTATE OF M. E. GARY, DECEASED** | 10-11-1553 | County Court Zavala County, TX |
| Village View Escrow, Inc. v. **PROFESSIONAL BUSINESS BANK** | YC064405 | Superior Court Los Angeles Cty., CA |
| Oakview Building Consensus Joint Venture, LLC, et al. v. **FIRST BANK** | 2:10-cv-00117 -HDM-PAL | U.S. District Court District of NV |
| City Bank v. **BANCINSURE, INC.** | 5:11-CV-45 | U.S. District Court Northern District of TX |
| **BANK MIDWEST, N.A.** v. Lion, LLC, et al | 08CV388 | District Court Weld County, CO |
| **SCOTT MORGAN** v. Amegy Bank National Bank | 1310019174 | JAMS Arbitration Houston, TX |
| Eric Richeson v. **SELECT COMFORT RETAIL CORPORATION** | O4:09-CV-2284 | U.S. District Court Northern District of OH |
| Vijay K Taneja, et al. H. Jason Gold Chapter 11 Admin. v. **FIRST TENNESSEE BANK, N. A.** | 08-13293-SSM Adv. 10-01367 | U.S. Bankruptcy Court District of VA |
| Carlton Henderson, et al. v. **CHASE HOME FINANCE, LLC** | CV09-2461-PHX-JAT | U.S. District Court District of AZ |
| In re: IRH Vintage Park Partners, LP, et al. Jointly Administered Chapter 11 | 10-37503-H4-11 | U.S. Bankruptcy Court So. District of TX, Houston |
| First Savings Bank v. **BAIRD REALTY APPRAISAL CONSULTANTS, ET AL.** | 22C01-0701-CT-62 | Floyd Circuit Court State of Indiana |
| Betty Jean Waselchalk v. **LITTON LOAN SERVICING, LP** | 07-C-173-K | Circuit Court Raleigh County, WV |
| Teresa Hill v. **WELLS FARGO BANK, N.A.** | 3:09-cv-487 | U.S. District Court So. District WV |
| **JOHN & JUDY HATTON** v. Marlin Leasing Corporation, et al. | 06-1532-B | District Court, 117th Jud. Nueces County, TX |
| **WACHOVIA BANK, N.A.** v. Charter Bank, et al. | 1:08cv267 HSO-JMR | U.S. District Court Southern District of MS |
| David A. and Lisa M. Millhouse v. **RESIDENTIAL FUNDING COMPANY, LLC**, et al. | 07-C-187 | Circuit Court Ohio County, WV |
| The Money Box v. **LIBERTY MUTUAL INS. CO.** | 343657 | County Court Bexar County, TX |
| Joyce Kiser v. **WELLS FARGO BANK, ET AL.** | 3:08CV135 | U.S. District Court Northern District of WV |

| | | |
|---|---|---|
| First Franklin Financial Corporation v.<br>**UNITED TITLE COMPANY, INC.** | 08-cv-1866-PAB-<br>MEH | U. S. District Court<br>District of CO |
| **TELESERVICES GROUP, INC.**<br>v. The Huntington National Bank | H6 05-00690<br>Adv. 07-80037-jrh | U.S. Bankruptcy Court<br>Western District of MI |
| **CYBERCO HOLDINGS, INC.**<br>v. The Huntington National Bank | 04-14905<br>Adv. 06-80989 | U.S. Bankruptcy Court<br>Western District of MI |
| **CHRISTIAN BRADLEY CALL**<br>v. Digital Domain, Inc., et al. | SC091347 | Superior Court<br>Cty. Of Los Angeles |
| Monica Asbury, et al. v.<br>**LITTON LOAN SERVICING, LP** | 3:07-CV-00500 | U.S. District Court<br>So. District of WV |
| Valcom, Inc., et al. v.<br>**LAURUS MASTER FUND, LTD.** | BC332524 | Superior Court<br>Cty. Of Los Angeles |
| Patrick & Desiree Cabana v.<br>**PEOPLE'S CHOICE HOME LOAN INC**., et al. | BC3511551 | Superior Court<br>Cty. Of Los Angeles |
| KeyBank National Association v.<br>**ATHLETIC PERFORMANCE INSTITUTE, LLC, ET AL.** | 050918901 | 3RD Judicial District<br>Salt Lake County, UT |
| Ocean Fresh Trading v.<br>**EAST WEST BANK** | BC 3622244 | Superior Court<br>Cty. Of Los Angeles |
| Legion Insurance Company v.<br>**U.S. BANK NATIONAL ASSOCIATION** | 99-79-45 | Circuit Court, 13th Jud.<br>Dist. Hillsborough Cty, FL |
| Frontier Investments Co. dba Rainland Mortgage Co. v.<br>**SECURITY TITLE GUARANTY, ET AL.** | 07-KMP-32 | District Court<br>Arapahoe Cty, CO |

# EXHIBIT C

## LIST OF DOCUMENTS REVIEWED AND/OR RECEIVED

- Application Of The Official Committee Of Unsecured Creditors For Entry Of An Order Authorizing The Employment And Retention Of J F. Morrow, As Consultant To The Committee, *Nunc Pro Tunc* To September 5, 2012
- RC-9019_00000002 (native).xls
- Analytic Focus Survey (Appendix A to this Report)
- Declaration of Frank Stillman in Support of Debtors' Motion Pursuant to Fed. R. Bankr. P. 9019 For Approval of the RMBS Trust Settlements Agreements sated June 11, 2012
- Supplemental Declaration of Jeffrey A. Lipps dated September 28, 2012
- Debtors' Request for Documents to the Official Committee of Unsecured Creditors dated September 30, 2012
- Shelve RFMSII — Series HSA — Home Equity Loan Trust 2006-HSA4 — Prospectus Supplement and Servicing Agreement
- Shelve RFMSII — Series HS — Home Equity Loan Trust 2005-HS2 — Prospectus Supplement and Servicing Agreement
- Shelve RFMSII — Series HI — Home Loan Trust 2006-HI4 — Prospectus Supplement and Servicing Agreement

- Shelve RFMSI — Series SA — Mortgage Pass-Through Certificates Series 2006-SA2 — Prospectus Supplement and Pooling and Servicing Agreement
- Shelve RFMSI — Series S — Mortgage Pass-Through Certificates Series 2006-S6 — Prospectus Supplement and Pooling and Servicing Agreement
- Shelve RASC — Series KS — Home Equity Mortgage Asset-Backed Pass-Through Certificates, Series 2006-KS3 — Prospectus Supplement and Pooling and Servicing Agreement
- Shelve RASC — Series EMX — Home Equity Mortgage Asset-Backed Pass-Through Certificates, Series 2006-EMX5 — Prospectus Supplement and Pooling and Servicing Agreement
- Shelve RASC — Series AHL — Home Equity Mortgage Asset-Backed Pass-Through Certificates, Series 2005-AHL3 — Prospectus Supplement and Pooling and Servicing Agreement
- Shelve RAMP — Series SL — Mortgage-Backed Pass-Through Certificates, Series 2005-SL2 — Prospectus Supplement and Pooling and Servicing Agreement
- Shelve RAMP — Series RZ — Mortgage Asset-Backed Pass-Through Certificates, Series 2006-RZ1 — Prospectus Supplement and Pooling and Servicing Agreement
- Shelve RAMP — Series RS — Mortgage Asset-Backed Pass-Through Certificates, Series 2006-RS2 — Prospectus Supplement and Pooling and Servicing Agreement

- Shelve RAMP — Series NC — Mortgage Asset-Backed Pass-Through Certificates, Series 2006-NC2 — Prospectus Supplement and Pooling and Servicing Agreement
- Shelve RAMP — Series EFC — Mortgage-Backed Pass-Through Certificates, Series 2006-EFC1 — Prospectus Supplement and Pooling and Servicing Agreement
- Shelve RALI — Series QS — Mortgage-Backed Pass-Through Certificates, Series 2006-QS3 — Prospectus Supplement and Pooling and Servicing Agreement
- Shelve RALI — Series QO — Mortgage-Backed Pass-Through Certificates, Series 2006-QO3 — Prospectus Supplement and Pooling and Servicing Agreement
- Shelve RALI — Series QH — Mortgage-Backed Pass-Through Certificates, Series 2007-QH3 — Prospectus Supplement and Pooling and Servicing Agreement
- Shelve RALI — Series QA — Mortgage-Backed Pass-Through Certificates, Series 2006-QA5 — Prospectus Supplement and Pooling and Servicing Agreement
- Shelve RAAC — Series SP — Mortgage-Backed Pass-Through Certificates, Series 2006-SP4 — Prospectus Supplement and Pooling and Servicing Agreement
- Shelve GMACM-RAMP — Series J — GMACM Mortgage Pass-Through Certificates, Series 2006-J1 — Prospectus Supplement and Pooling and Servicing Agreement

- Shelve GMACM-RAMP — Series HLTV — GMACM Home Loan-Backed Term Notes, Series 2006-HLTV1 — Prospectus Supplement and Servicing Agreement

- Shelve GMACM-RAMP — Series HE — GMACM Home Equity Loan-Backed Term Notes, Series 2007-HE1 — Prospectus Supplement and Servicing Agreement

- Shelve GMACM-RAMP — Series GH — GMACM Mortgage Loan-Backed Term Notes, Series 2004-GH1 — Prospectus Supplement and Servicing Agreement

- Shelve GMACM-RAMP — Series AR — GMACM Mortgage Pass-Through Certificates, Series 2006-AR1 — Prospectus Supplement and Pooling and Servicing Agreement

- Shelve GMACM-RAMP — Series AF — GMACM Mortgage Pass-Through Certificates, Series 2005-AF2 — Prospectus Supplement and Pooling and Servicing Agreement

- Shelve GMACM-RAMP — Series AA — GMACM Mortgage Pass-Through Certificates, Series 2005-AA1 — Prospectus Supplement and Pooling and Servicing Agreement

- 37 versions/updates of GMAC-RFC Client Guides between February 23, 1998 and June 25, 2007 — RC20195880-RC20198439, RC20198445-RC20199732, RC20200375-RC20201656, RC20202993-RC2025642, RC20205645-RC20206322, RC20206375-RC20208986, RC21667483-RC21667905, RC21667914-RC21668731, RC21668911-RC21669456, RC21669471-RC21671708, RC21671712-

RC21674202, RC21674219-RC21676764, RC21676767-RC21679070

- Loan Files for Sample Loans produced by ResCap
- Analytic Focus Excel® Spreadsheet: 411 Other Loans (Listing of Missing Loan Files, Incomplete Loan Files, and Missing Origination Underwriting Guidelines Loan Files)
- Analytic Focus Excel® Spreadsheet: 2012.11.07 (Summary of Findings for the 1089 Sample Loans)

# APPENDIX A

## SAMPLE OF SURVEY

# Kramer Levin

There are 51 questions in this survey

## Bankruptcy

### 1 [UWID]What is your ID? *

Please write your answer here:

[ ]

### 2 [SecNo]Securitization number? *

Please choose only one of the following:

- ○ {TOKEN:ATTRIBUTE_1}

### 3 [Cusip]Cusip Number *

Please choose only one of the following:

- ○ {TOKEN:ATTRIBUTE_2}

### 4 [AcctNo]What is the Account Number for this Loan? *

Please choose only one of the following:

- ○ {TOKEN:ATTRIBUTE_3}

Will be on the loan documents.

### 5 [IQ]What is the final determination for this loan? *

Please choose only one of the following:

- ○ Investment Quality with No Defects
- ○ Investment Quality with Underwriting Violations
- ○ Materially Defective

### 6 [RW]What Reps & Warranties were violated? *

Only answer this question if the following conditions are met:
° ((IQ.NAOK == "3"))

Please choose all that apply:

- ☐ Underwriting Standards
- ☐ Final Title Insurance
- ☐ PMI
- ☐ Hazard Insurance
- ☐ Valid flood insurance policy if property was in a designated flood hazard area
- ☐ Original and Genuine Mortgage
- ☐ Delinquent and unsatisfied taxes, rents, or other debts
- ☐ Mortgage subject to right of rescissions, set-offs, etc.
- ☐ Mortgage satisfied, cancelled, or subordinated

### 7 [UnStand]Please indicate below all the Underwriting Standards violations: *

Only answer this question if the following conditions are met:
° ((IQ.NAOK == "2" or IQ.NAOK == "3"))

Please choose all that apply:

- ☐ Missing income documentation
- ☐ DTI GT guidelines
- ☐ (C)LTV GT guidelines maximum
- ☐ (C)LTV GT guidelines maximum due to neg-am potential
- ☐ Stated income unreasonable and/or unsustainable
- ☐ Missing required verification of employment
- ☐ Property type does not meet guidelines
- ☐ Credit score LT minimum requirements
- ☐ Loan amount GT guidelines maximum
- ☐ Derogatory or Insufficient credit history
- ☐ Inadequate verified reserves
- ☐ Missing asset verification documentation
- ☐ Missing approval documentation

☐ No Underwriting Standards Violations

Only select "NONE" if the loan is NOT materially defective and there are no underwriting standard violations.

**8 [CollDoc]Please indicate below all items located in the collateral file? ***

Please choose all that apply:

☐ Completed and executed application

☐ Deed

☐ Final Uniform Settlement Statement (HUD-1 or HUD-1A)

☐ Flood Hazard Determination

☐ Uniform Underwriting and Transmittal Summary (Form 1008)

☐ Form 4506 "Request for Copy of Tax Return"

☐ None

☐ Other: ________

**9 [OrigChan]What was the Origination Channel for this loan? ***

Please choose only one of the following:

○

○ Retail Wholesale

○ Correspondent

○ Unknown from file

**10 [Amt]What is the face amount of this loan? ***

Please write your answer here:

Just whole numbers

**11 [OrigDate]What was the execution date of the note? ***

Please enter a date:

This is the date on the note.

---

**12 [MortType]What type of mortgage secures this loan? ***

Please choose only one of the following:

- ◯ First Mortgage
- ◯ Second Mortgage
- ◯ Other

**13 [Purp]What was the loan purpose? ***

Please choose only one of the following:

- ◯ Purchase
- ◯ Rate/Term
- ◯ Cash Out

**14 [PurchPrice]What was the purchase price of this property? ***

Only answer this question if the following conditions are met:
° ((Purp.NAOK == "2" or Purp.NAOK == "3"))

Please write your answer here:

$ [ ]

If you can't find the purchase price in the file, then input "0".

**15 [DocType]What type of documentation requirement describes this loan? ***

Please choose only one of the following:

- ◯ Full
- ◯ Alt
- ◯ Alt-A
- ◯ NINA
- ◯ NINANE
- ◯ NIVA

- SISA
- SIVA
- No Doc
- Unknown from file
- Other [ ]

These are the published guidelines. Use SISA for "SSSA, Signature Series, or Simply Signature loans"

**16 [OccStatus]What is the Occupancy Status for this loan as determined by the re-underwriter? ***

Please choose only one of the following:

- Owner-Occupied
- Second Home
- Investment
- Unknown from file

This is what we determined.

**17 [Occ]What is the Occupancy Status on the application? ***

Please choose only one of the following:

- Owner-Occupied
- Second Home
- Investment
- Undisclosed

**18 [MtgBal]What was the outstanding balance of the first mortgage? ***

Only answer this question if the following conditions are met:
° ((MortType.NAOK == "2" or MortType.NAOK == "3"))

Please choose only one of the following:

- Unknown from file
- First mortgage balance [ ]

At the time the HELOC was originated.

**19 [ValueBasis]What was the basis of the value used in calculating LTV/CLTV? ***

Please choose only one of the following:

- Appraisal
- Purchase Price
- Stated
- Unknown from file

This is based on the approval documents.

**20 [Valuation]Was an appraisal in file? ***

Please choose only one of the following:

- Yes
- No

**21 [Appraisal]What type of Appraisal was performed on the subject property? ***

Only answer this question if the following conditions are met:
° ((Valuation.NAOK == "Y"))

Please choose all that apply:

- Uniform Residential Appraisal Report (Form 1004)
- Appraisal Update and/or Completion Report (Form 1004D)
- Small Residential Income Property Appraisal Report (Form 1025)
- Individual Condominium Unit Appraisal Report (Form 1073)
- Individual Cooperative Interest Appraisal Report (Form 1075)
- DU Quantitative Analysis Appraisal Report (Form 2055)
- Automated Valuation Model (AVM)
- Desk Review

Please see guidelines for LTV stipulations and appraisal review requirements.

**22 [LTV]What was the Loan to Value on the First Mortgage? ***

Please write your answer here:

%

Underwriter calculates the LTV
Format:xxx

**23 [ApprLTV]What was the LTV reported on Approval for this particular Loan Program? ***

Please write your answer here:

%

Either found on the AUS or manual approval documents.

**24 [PolicyLTV]What was the maximum LTV according to policy? ***

Please write your answer here:

If there is an AUS Approval in file and all conditions have been met, then the PolicyLTV is the same as the ApprLTV.

**25 [CLTV]What was the Combined Loan to Value using both mortgage balances? ***

Only answer this question if the following conditions are met:
° ((MortType.NAOK == "2"))

Please write your answer here:

%

Underwriter calculates the CLTV. Please base CLTV on negative amortizing first mortgage if applicable.

**26 [ApprCLTV]What was the approved CLTV? ***

Only answer this question if the following conditions are met:
° ((MortType.NAOK == "2"))

Please write your answer here:

%

Either found on the AUS or manual approval documents.

---

**27 [PolicyCLTV]What was the maximum CLTV according to policy? ***

Only answer this question if the following conditions are met:
° ((MortType.NAOK == "2"))

Please write your answer here:

If there is an AUS Approval in file and all conditions have been met, then the PolicyCLTV is the same as the ApprCLTV.

**28 [NegAm]Was the first mortgage a negative amortizing loan? ***

Please choose only one of the following:

- Yes
- No
- Unknown from file

**29 [NegPolicy]What was the neg-am LTV/CLTV policy for this loan? ***

Only answer this question if the following conditions are met:
° ((NegAm.NAOK == "1"))

Please write your answer here:

Percent balance can increase as disclosed on the note. (110%, 115, 125%, etc.)

**30 [AdjNegAm]What was the adjusted (C)LTV taking into account the potential for neg-am? ***

Only answer this question if the following conditions are met:
° ((NegAm.NAOK == "1"))

Please write your answer here:

LTV is for first mortgage loans and CLTV is when the subject loan is a second.

**31 [AppraisalAmount]What was the Market Value of the property as disclosed on the Appraisal? ***

Only answer this question if the following conditions are met:
° ((Valuation.NAOK == "Y"))

Please write your answer here:

$

**32 [Citizen]Was the Borrower a U.S. Citizen? ***

Please choose only one of the following:

- Yes
- No

**33 [CBR]Was there a CBR in file? ***

Please choose only one of the following:

- Yes
- No

**34 [FICO]FICO Score for this loan? ***

Only answer this question if the following conditions are met:
° ((CBR.NAOK == "Y"))

Please write your answer here:

Follow guidelines for applicable FICO score as it relates to the borrower and possible co-borrower. If there is no FICO listed or is absent, please use the number "0".

**35 [FICOPolicy]What was the minimum FICO Score for this loan ID? ***

Only answer this question if the following conditions are met:
° ((CBR.NAOK == "Y"))

Please write your answer here:

If unknown or approved by the AUS, put 0

### 36 [Property Type]What was the type of property used as collateral for this loan? *

Please choose only one of the following:

- SFR
- PUD
- Low-Rise Condominium
- High-Rise Condominium
- 2-4 Units Condotel
- Cooperative
- Manufactured Home
- Log Home
- Rural Property
- Other
- 

### 37 [HDTI]What was the Housing Debt to Income Ratio? *

Please write your answer here:

%

Re-underwriter calculations
Format:xx
Please round up to the nearest percent. Remember that we use PITI (principal + interest + taxes + insurance) and any applicable PMI.

### 38 [ApprovHDTI]What was the approved HDTI? *

Please write your answer here:

%

Either found on the AUS or manual approval documents.

---

**39 [DTI]What was the Total Debt to Income Ratio? ***

Please write your answer here:

%

Re-underwriter calculations Format:xx
Please round to the nearest percent.

**40 [ApprovDTI]What was the DTI reported on the Approval? ***

Please write your answer here:

%

Either found on the AUS or manual approval documents.

**41 [DTIPolicy]What was the maximum DTI per policy for this loan? ***

Please write your answer here:

When there is an AUS approval and all conditions have been met, then use the approved AUS DTI, otherwise use the policy guideline.

**42 [Approval]Was there a Final Approval in file? ***

Please choose only one of the following:

- Yes
- No

**43 [ApprovType]What type of approval was in file? ***

Only answer this question if the following conditions are met:
° ((Approval.NAOK == "Y"))

Please choose only one of the following:

- AUS
- Manual

**44 [AUSType]If in file, what was the type of AUS? ***

Only answer this question if the following conditions are met:
° ((ApprovType.NAOK == "1"))

Please choose only one of the following:

- DU LP
- Assetwise
- Other AUS
-

**45 [AUSDec]What was the last AUS decision? ***

Only answer this question if the following conditions are met:
° ((ApprovType.NAOK == "1"))

Please choose only one of the following:

- Accept/Eligible
- Accept/Ineligible
- Refer
- Caution
- Unknown from file
-

1. Accept aka Approve and Eligible
2. Refer aka Refer/Eligible, Approve/Ineligible, and Refer/Ineligible
3. Caution aka Refer with Caution and Out of Scope

**46 [ResRequ]How many months of Reserves were required? ***

Please write your answer here:

Per loan guidelines or approval documents. If no reserves were required for this loan then input a "0".

**47 [Reserves]How many months of Reserves did the Borrower have in verifiable accounts? ***

Only answer this question if the following conditions are met:
° ((ResRequ.NAOK > "0"))

Please write your answer here:

Whole numbers only

**48 [Employment]What was the Borrower's employment status? ***

Please choose only one of the following:

- Salaried Borrower (includes Borrowers receiving commissioned and bonus income)
- Self-employed Borrower
- Retired
- Public Assistance
- Unemployed
- Unknown

**49 [B2]Was there a Co-Borrower? ***

Please choose only one of the following:

- Yes
- No

**50 [Employment 2]What was Borrower 2's employment status? ***

Only answer this question if the following conditions are met:
° ((B2.NAOK == "Y"))

Please choose only one of the following:

- Salaried Borrower (includes Borrowers receiving commissioned and bonus income)
- Self-employed Borrower
- Retired
- Public Assistance

- ○ Unemployed
- ○ Unknown

**51 [Other]Please note anything that you found that was outside of the Loan Program Guide parameters that was not previously identified in the aforementioned questions?**

Please write your answer here:

Do not write in all CAPS.

12/31/1969 – 18:00

Submit your survey.
Thank you for completing this survey.