Hearing Date: November 13, 2012 at 9:00 a.m. (ET)
Objection Deadline: October 24, 2012 at 4:00 p.m. (ET)

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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

DEBTORS' AMENDED[1] 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, Residential Capital, LLC, and each of

[1] The *Debtors' Federal Rule of Civil Procedure 26(A)(2) Expert Disclosures* [Dkt. # 1664], filed on September 28, 2012, has been amended to include the Declaration of William J. Nolan in Support of Debtors' Motion Pursuant to Fed. R. Bankr. P. 9019 for Approval of the RMBS Trust Settlement Agreements, which was errantly omitted. This declaration was originally filed with the Court on June 11, 2012, and is now attached as Exhibit E hereto. The declarations of Jeffrey Lipps are now attached as Exhibits F and G.

its debtor affiliates (collectively, the "Debtors"), by its attorneys, hereby makes the following expert disclosure.

The Debtors may call the following individuals as an expert witness 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]:

Frank Sillman, Fortace LLC

Address:
19712 MacArthur Blvd
Suite 120
Irvine, CA 92612
(310) 545-4548

In support of the Debtors' disclosure of this expert:

Attached hereto as Exhibit A is Frank Sillman's Curriculum Vitae.

Attached hereto as Exhibit B is the Declaration of Frank Sillman in Support of Debtors' Motion Pursuant to Fed. R. Bankr. P. 9019 for Approval of the RMBS Trust Settlement Agreements.

Attached hereto as Exhibit C is the Supplemental Declaration of Frank Sillman in Support of Debtors' Motion Pursuant to Fed. R. Bankr. P. 9019 for Approval of the RMBS Trust Settlement Agreements.

Please refer to the following documents for the fees that this expert will be paid in this matter: *Debtors' Application for an Order Authorizing Employment and Retention of Fortace LLC as Consultant to the Debtors Nunc Pro Tunc to May 21, 2012* [Docket # 704] and *Order*

Authorizing Employment and Retention of Fortace LLC as Consultant to the Debtors Nunc Pro Tunc to May 21, 2012 [Docket # 900].

William J. Nolan, FTI Consulting, Inc.

Address:
200 State Street, 8th Floor
Boston, MA 02109
In support of the Debtors' disclosure of this expert:

Attached hereto as Exhibit D is William J. Nolan's Curriculum Vitae.

Attached hereto as Exhibit E is the Declaration of William J. Nolan in Support of Debtors' Motion Pursuant to Fed. R. Bankr. P. 9019 for Approval of the RMBS Trust Settlement Agreements

Please refer to the following documents for the fees that this expert will be paid in this matter: *Debtors' Application Under Sections 327(a) and 328(a) of the Bankruptcy Code, Bankruptcy Rule 2014(a) and Local Rule 2014-1 for Authorization to Employ and Retain FTI Consulting, Inc. as Financial Advisor Nunc Pro Tunc to May 14, 2012* [Docket # 526] and *Order Under Sections 327(a) and 328(a) of the Bankruptcy Code, Bankruptcy Rule 2014(a) and Local Rule 2014-1 Authorizing the Employment and Retention of FTI Consulting, Inc. as Financial Advisor Nunc Pro Tunc to May 14, 2012* [Docket # 902].

Jeffrey Lipps, Esq., Carpenter Lipps & Leland

Address:
280 Plaza, Suite 1300
280 North High Street
Columbus, OH 43215
(614) 365-4105

Attached hereto as Exhibit F is the Declaration of Jeffrey A. Lipps.

Attached hereto as Exhibit G is the Supplemental Declaration of Jeffrey A. Lipps.

Please refer to the following documents for the fees that this expert will be paid in this matter:

Debtors' Application Under Section 327(e) of the Bankruptcy Code, Bankruptcy Rule 2014(a) and Local Rule 2014-1 for Authorization to Employ and Retain Carpenter Lipps & Leland LLP as Special Litigation Counsel to the Debtors, Nunc Pro Tunc to May 14, 2012 [Docket # 508] and *Order Under Section 327(e) of the Bankruptcy Code, Bankruptcy Rule 2014(a) and Local Rule 2014-1 Authorizing the Employment and Retention of Carpenter Lipps & Leland LLP as Special Litigation Counsel to the Debtors, Nunc Pro Tunc to May 14, 2012* [Docket # 907].

Dated: New York, NY
October 3, 2012

Respectfully submitted,

/s/ Gary S. Lee

Gary S. Lee
Anthony Princi
Darryl Rains
Jamie A. Levitt

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Counsel for the Debtors
and Debtors in Possession

Exhibit A

Curriculum Vitae of
Frank Sillman

Manhattan Beach, CA 90266
Office Phone (310) 545-4548
Email: fsillman@fortace.com

Summary of qualifications

- 25 years of senior executive management experience in sales, marketing, operations, secondary marketing, loan securitization, risk mitigation and consulting. This included managing four multi-billion dollar, nationwide lending divisions and building innovative, de novo operating divisions. My responsibilities also included managing Secondary Marketing, Treasury, IT systems design/implementation, Accounting and Forecasting.
- Experience in building and managing scalable, profitable and low cost businesses.
- Helped design and implement risk based management models, risk mitigation strategies and integrated imaging systems.
- Hired and developed a strong team of senior sales, marketing, operational, finance and risk management executives.

Professional experience

Fortace LLC 2008 to Present Los Angeles, CA

Managing Partner, Risk Mitigation & Consulting practice

Co-Founded and actively manages the leading Mortgage Risk Mitigation & Consulting firm that assists National banks, leading law firms and nationwide Mortgage Banking firms in (1) mitigating risks associated with the origination, securitization and loan servicing of residential mortgage loans and (2) the development and implementation of cost management programs & processes. We developed a proprietary workflow system (Fraud Hunter) that allowed us to securely investigate, document and provide supporting documentation to help our clients reduce their risk exposure and save hundreds of millions in potential losses and exceed their internal ROI objectives. Additionally we created a Cost Management and Accountability program that allowed our customers to dramatically cut costs and efficiently manage those costs on an ongoing basis.

IMB Bank 1998 to 2008 Pasadena, CA

Executive Vice President, Mortgage Banking Group

Responsible for the Mortgage Banking businesses for a top ten nationwide residential mortgage originator, with peak mortgage production of $100 Billion in 2006. Built and managed our Retail, Wholesale, Correspondent and Warehouse Lending businesses. This included the recruiting and retention of our nationwide sales and sales management organization, development of a highly automated Marketing team that was leveraged over all four divisions and a nationwide, low cost, decentralized operational infrastructure. We originated and sold via loan securitizations and whole loan sales Agency, FHA, Private Label, Heloc, and Jumbo residential loan production. I also helped design and implement an industry leading POS pricing, ratelock, automated underwriting and imaging platform that improved customer satisfaction, improved operational efficiencies, enhanced risk mitigation and lowered costs.

TCM/AHC Mortgage 1992-1998 Los Angeles, CA

Senior Vice President, Loan Production and Secondary Marketing

Responsible for retail mortgage banking loan production and secondary marketing for a medium size mortgage banker. Grew the mortgage banking production volumes from scratch in 1992 to $100 million plus per month. I helped grow the business from an unprofitable Mortgage Brokerage model to a profitable Mortgage Banking model while building the operation infrastructure to properly manage the compliance, underwriting,

Curriculum Vitae of
Frank Sillman
Manhattan Beach, CA 90266
Office Phone (310) 545-4548
Email: fsillman@fortace.com

closing and sales of closed loans into the secondary market.

Shearson Lehman Mortgage 1986-1992 Newport Beach, Ca

Senior Vice President, Secondary Marketing, Treasury and Warehouse Lending

Managed all aspects of our Secondary Marketing activities including hedging, loan sales. Securitization and pricing. I managed our Treasury department which including daily Treasury operations, bank and commercial paper financing arrangements and applicable accounting. I also oversaw our $500,000,000 Warehouse Lending business.

Education

University of California, San Diego - Bachelor of Arts

Expert Witness Experience

- Litigation Consulting & Expert Witness services in following areas: (1) Mortgage Origination process and controls, (2) Client Underwriting Guidelines, (3) Quality Control processes, (4) Residential Loan Securitization including Origination and Servicing Securitization Representations & Warranties.
- Fact Witness Deposition strategy and preparation
- Contributory Loss Analysis for Securitization Representation and Warranty losses
- Residential Capital, LLC Chapter 11 Bankruptcy – 9019 Expert Declaration on RMBS Trust Settlement Agreement - UNITED STATES BANKRUPTCY COURT SOUTHERN DISTRICT OF NEW YORK - Case No. 12-12020 (MG)

Exhibit B

MORRISON & FOERSTER LLP
1290 Avenue of the Americas
New York, New York 10104
Telephone: (212) 468-8000
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Gary S. Lee
Anthony Princi
Jamie Levitt

Proposed Counsel for the Debtors and
Debtors-in-Possession

UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF NEW YORK

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

DECLARATION OF FRANK SILLMAN IN SUPPORT OF DEBTORS' MOTION PURSUANT TO FED. R. BANKR. P. 9019 FOR APPROVAL OF THE RMBS TRUST SETTLEMENT AGREEMENTS

I, Frank Sillman, being duly sworn, depose and say:

1. I serve as Managing Partner for Fortace, LLC ("Fortace"),[1] an advisory and consulting firm to banks, mortgage companies, insurance companies, trustees and other investors. I am authorized to submit this declaration (the "Declaration") on behalf of the Debtors in connection with their motion pursuant to Rule 9019 of the Federal Rules of Bankruptcy Procedure for approval of RMBS Trust Settlement Agreements. This Declaration reflects the work performed to date, and I reserve the right to augment and refine the analysis as my work is ongoing.

[1] Capitalized terms not otherwise defined herein are as defined in the RMBS Trust Settlement Agreement, or in the Governing Agreements for each of the Debtors' securitizations, or in the defined terms incorporated by reference therein.

2. A key area of my work with Fortace relates to reviewing and opining on the reasonableness of repurchase demands. I have performed repurchase demand work for insurers and lenders who have issued repurchase demands to Sellers, as defined below, based on alleged breaches of representations and warranties. As part of this work I helped develop the loan audit selection criteria, reviewed contractual obligations, performed loan-level audits, made recommendations as to whether or not a repurchase demand should be issued and participated in the negotiations with the Sellers on discussions to repurchase loans. I have also performed work for Sellers who have received repurchase demands from Trustees, insurers and lenders for alleged breaches of representations and warranties. As part of this work I have reviewed contractual obligations, reviewed the repurchase demands and the related findings and supporting evidence, performed loan level audits, made recommendations to Sellers as to whether or not the alleged breaches were contractual breaches, and participated in the negotiations with Trustees on discussions to repurchase loans.

3. I have approximately 25 years of experience in the mortgage banking industry. I have held senior executive positions at a federally insured bank, at a Wall Street investment bank, and at privately held mortgage banking companies. During those 25 years, I have managed residential mortgage origination and loan operations, secondary marketing, capital markets, treasury and warehouse lending. In particular, I have extensive experience in the residential mortgage market, including origination, securitization, loss reserves, and repurchase-related activities related to Fannie Mae, Freddie Mac, FHA, Prime Jumbo, Alt A, Subprime, Home Equity Line of Credit ("HELOC"), and Closed End Second Lien residential mortgage loans.

4. I am familiar and have experience with the variety of methods used to estimate potential repurchase liabilities or requirements. I employed a methodology based on frequency and severity rates to forecast the potential Trust lifetime loss ranges and developed my repurchase-related assumptions utilizing the Debtors' historical loan loss data, current payment statuses, Shelf, mortgage loan product and the Debtors prior repurchase experience. Frequency and severity rate-based loss forecasting and historically-based assumption development are two of the accepted methods for deriving an estimate of potential repurchase exposure. These two methodologies are regularly used by market participants, financial institutions and experts to estimate repurchase exposures, including estimates provided by financial institutions in their regulatory filings, and independent third-party expert reports. Accordingly, the methodology that I used in this Declaration is generally accepted in the industry as a sound means of estimating repurchase exposure.

5. The RMBS Trust Settlement seeks to resolve a large number of breach of representation and warranty claims. I was asked to provide an independent assessment of the Total Allowed Claim as defined in the RMBS Trust Settlement Agreements and opine as to its reasonableness. However, I take 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. To that end, and in conjunction with selected Fortace personnel under my supervision, I have therefore performed a review of the following data and agreements related to the securitization trusts identified in Exhibit A to the RMBS Trust

Settlement Agreement (the "Trusts"): (1) the Actual Liquidated Losses,[2] (2) the actual Severity Rates for the Trusts based on the Liquidated Loans, (3) Frequency Rates from one Trust for each of the representative Shelves (as defined below), (4) the payment status and delinquency data for the Trusts as of March 31, 2012, (5) the Debtors' repurchase experience with Freddie Mac and Fannie Mae's repurchase demand data, and (6) Governing Agreements from one Trust from each of the Shelves. Additionally, in those areas where actual data for the Trusts is not available, such as Audit Rates, Demand Rates, Breach Rates and Agree Rates as defined and detailed below, I utilized assumptions and developed my own models based on my own experience and industry data, where available, which takes into consideration the Payment Status, Shelf and loan product types, including Prime Jumbo, Alt A, Subprime, HELOC and Second Lien (collectively, "Mortgage Loan Products").

6. The first step in estimating the range of potential repurchase liability for the Debtors ("Potential Repurchase Requirements") is developing the potential cumulative lifetime loss ranges for the Trusts ("Estimated Lifetime Losses"). The next step necessary to understand the Potential Repurchase Requirements is to determine 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.

7. For purposes of this Declaration, I developed Estimated Lifetime Loss assumptions in the aggregate based on the Payment Status, Shelf, and Mortgage

[2] In this Declaration, all references to percentages are rounded to the nearest whole percentage (*e.g.*, 98.5% is rounded up to 99%, and 98.4% is rounded down to 98%). Therefore, some percentage totals will not equal 100% due to this rounding convention.

Loan Product, instead of utilizing more detailed cash flow and loss assumptions for each individual Trust.

8. For purposes of this Declaration, I developed my Demand Rate, Breach Rate and Agree Rate assumptions utilizing the Debtors' actual GSE repurchase demand data, industry repurchase demand data and my own repurchase demand experience. Those assumptions were then applied at the Payment Status, Shelf and Mortgage Loan Product levels as defined and detailed below. The Audit Rate, Demand Rate and Breach Rate for the Trusts were not available publicly or from the Debtors. Additionally, the vast majority of the Trusts' private label securities ("PLS") repurchase demands received by the Debtors to date are unresolved, so I could not ascertain a meaningful PLS Agree Rate or Loss Share Rate assumption for use in this Declaration. Instead I focused on the more robust, complete and reliable information available regarding the Debtors' actual GSE repurchase demand data.

9. If I were called to testify as a witness in this matter, I would testify competently to the facts set forth herein.

OVERVIEW OF THE MORTGAGE SECURITIZATION PROCESS

10. The creation, sale and servicing of a Residential Mortgage-Backed Security ("RMBS") is a multi-stage process comprising numerous steps and utilizing various entities to discharge the required duties.[3] The RMBS securitization process detailed below is consistent with the process utilized by the Debtors in the creation, sale and servicing of the Trusts.

[3] A mortgage-related Asset-Backed Security ("ABS") transaction is similar in nature and is comparable for purposes of this discussion.

11. First, the "Seller" of the RMBS, also known as the Sponsor, Issuer and/or Depositor, accumulates or pools the mortgage loans it originated and/or purchased from other Lenders. Various of the Debtors acted as Sellers to the Trusts. The Seller arranges to sell those mortgage loans into a "Special Purpose Entity" created exclusively for the purpose of issuing an RMBS, often referred to as an "RMBS Trust." If the Seller planned to offer a large quantity of a similar type of securities, the Seller would file a registration statement with the SEC to allow it to offer Trusts without SEC review of each supplement ("Shelf" or "Shelves"). The Debtors offered RMBS Trusts under eight different Shelves,[4] covering a wide range of different mortgage products. In connection with the securitization, an Underwriter(s), Trustee, Servicer, Master Servicer, REMIC Administrator and Custodian are selected to handle various duties on behalf of the RMBS Trust. In addition to being the Seller of Trusts, the Debtors, at times, acted as the Servicer and/or Master Servicer of the Trusts.

12. Second, prior to the closing of the sale of loans to the RMBS Trust, the parties negotiate all the applicable RMBS Trust agreements ("Governing Agreements") involved in the creation, sale and loan servicing of the RMBS Trust. Generally, the key Governing Agreements are the Mortgage Loan Purchase Agreement ("MLPA"), the Pooling and Servicing Agreement ("PSA"), and the Assignment, Assumption and/or Indenture Agreements, as applicable. Under the Governing Agreements, Sellers typically provide certain representations and warranties, which may vary from RMBS Trust to RMBS Trust, but can include requirements that the Sellers

[4] These Shelves and their corresponding products are: "RALI" (Alt-A); "RFSMI" (Jumbo A); "RASC" (subprime); "RFMSII" (second lien); "RAAC" (seasoned loans); "RAAC-RP" (subprime), "RAMP" (non-conforming products), and "GMACM" (various products).

comply with some or all of the following: a) accuracy of the loan-level data provided on the securitization data tape, b) Seller's underwriting guidelines, c) origination and loan servicing policy and procedures, d) documents required to be contained in the mortgage file, e) accuracy of the valuation of collateral, f) federal, state and local regulations, and g) various degrees of fraud provisions. The Trusts utilized the standard Governing Agreements, which typically, but not always, contained similar representations and warranties to those detailed above.

13. As a way to further enhance the credit rating of the Certificates, a Seller may choose to obtain bond insurance ("Bond Wrap"), from a monoline bond insurance company ("Monoline"). The Bond Wrap is a non-cancelable, irrevocable, and binding obligation of the Monoline to guarantee full, complete and timely principal and interest payments to the RMBS Trust. For this guarantee, the Monoline charges the Seller a premium or fee for the issuance of the Bond Wrap. The presence of the Bond Wrap is an added third-party guarantee to the Certificate Holders in addition to the underlying credit structure of the RMBS Trust, which reduces the overall risk to the Certificate Holders and allows the credit rating agencies to increase the credit ratings of the Certificates. The Debtors utilized Bond Wraps on 61 of the 392 Trusts.

14. One or more credit rating agencies, such as Standard & Poor's and Moody's, review the data about the underlying mortgage loans, the Seller, the Servicer, the Master Servicer, the Trustees, and Governing Agreements, and Monoline Bond Wraps, if applicable, and assign credit ratings to each of the tranches of mortgage-backed pass-through certificates ("Certificates"). The Trusts were all rated by one of more of the credit rating agencies.

15. The Certificates are then created and sold to investors through the Underwriter(s), who are typically Wall Street investment banks but also may be an affiliate of the Seller. With respect to the Trusts at issue here, the Sponsors/Issuers may have utilized a Wall Street investment banks and/or the Debtors' affiliate GMAC RFC Securities as such Underwriters.

16. Finally, the Servicer administers the mortgage loans in accordance with the Governing Agreements, and the Trustee distributes the remittances to the Certificate Holders in accordance with the Governing Agreements and Certificates. Certain of the Debtors did act as Servicer, at times, for the Trusts.

ALLEGED BREACHES OF REPRESENTATIONS AND WARRANTIES

17. The Governing Agreements authorize certain parties, such as the Trustees, to notify the Seller of any alleged breaches of representations and warranties. If any such party notifies the Seller of an alleged breach of one or more of the representations and warranties, the following analysis is required in order to assess the Seller's repurchase or loss reimbursement obligation under the Governing Agreements.

18. Generally, the standard for analyzing a breach of representations and warranties requires an assessment of: (a) whether the alleged loan defect or alleged breach is an actual and material breach of representations and warranties, and (b) whether such breach was material and adverse to the interests of the Certificate Holders in the mortgage loans (cumulatively the "R&W Repurchase Standard"). If the R&W Repurchase Standard is met, the Seller is required to repurchase non-liquidated loans at the purchase price, as defined in the applicable Governing Agreements, or to reimburse the RMBS Trust for any losses incurred in the liquidation of the loan, as defined in the applicable Governing Agreements. If the R&W Repurchase Standard is not met, the

Seller does not have an obligation to repurchase the loan or reimburse the RMBS Trust for liquidated losses. I offer no opinion on whether the Trusts would be able to prove liability and/or meet the R&W Repurchase Standard. Rather, for purposes of this Declaration, I have assumed that the Trusts would be capable of meeting the R&W Repurchase Standard in certain cases in order to predict the Debtors' Potential Repurchase Requirements.

LOAN REPURCHASE TRENDS

19. Beginning in late 2007, the U.S. economy entered the worst recession since the Great Depression. This recession has inflicted tremendous damage on all sectors of the economy including employment, credit, gross domestic product, and the housing market. As the recession worsened, growing unemployment and the resulting loss of income have had a devastating effect on the housing market, loan performance and housing prices. Rising delinquencies and plummeting housing prices have had and continue to have a profoundly negative impact on the performance of and resulting losses on all mortgage securitizations.

20. As a result, the government-sponsored entities, including Fannie Mae and Freddie Mac ("GSEs"), Monolines, and investors with various holdings have begun to pursue claims for alleged breach of representations and warranties at elevated rates to help offset their RMBS losses. The GSEs have requested sellers to repurchase approximately $66 billion in loans as noted in their recent SEC filings as summarized in Inside Mortgage Finance's Special Report ("IMF Special Report"),[5] while industry

[5] As reported in Inside Mortgage Finance's Special Report Analyzing GSE Mortgage Buyback Demands regarding Fannie Mae and Freddie Mac's Regulation AB 15-G repurchase-related SEC filings dated 2012. In this Special Report, the Debtor is referred to as "GMAC Mortgage / Ally." An excerpt of this report is attached hereto as Exhibit A.

estimates forecast that sellers of non-GSE securities, known as PLS, will repurchase hundreds of billions in loans, resulting in seller losses of approximately $133 billion according to Compass Point Research.[6]

RECENT INDUSTRY SETTLEMENTS

21. As a way to more efficiently resolve the billions of dollars in repurchase demands, Fannie Mae, Freddie Mac and some investors with various holdings have reached global repurchase settlements with certain Sellers.

22. In preparation for this Declaration, I reviewed the publicly-available settlement information relating to the following settlements:

Seller/Originator	Securitization Type	Settlement Amount	Date
Bank of America	PLS	$8,500,000,000	June 2011[7]
Lehman	PLS	$40,000,000	November 2011
Bank of America	Fannie Mae	$1,520,000,000	January 2012
Bank of America	Freddie Mac	$1,280,000,000	January 2012

23. Both the Bank of America (“BofA”) and Lehman PLS settlements and the corresponding RMBS Trusts are similar in terms of the securitization structure, issuance years, Mortgage Loan Product mix, Governing Agreements and R&W Repurchase Standards.

THE DEBTORS’ REPURCHASE HISTORY

24. I reviewed the Debtors’ 2006-2008 GSE historical repurchase data, based on both Fannie Mae and Freddie Mac’s Regulation AB 15-G SEC filings, as summarized in the IMF Special Report.[8] The repurchase data was as follows:

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[6] *See* Exhibit B hereto: Compass Point Research on Mortgage Repurchases Part II: Private Label RMBS Investors Take Aim, dated August 17, 2010.

[7] Bank of America settlement for 530 trusts is pending court approval.

Seller/Originators	Repurchase Demands (millions)	Repurchased ("Agree Rate")	Pending	Disputed
GMAC Mortgage / Ally (the Debtors)	$1,537.81	67.56%	2.60%	.50%
All Seller / Originators	$65,836.91	49.54%	12.58%	4.15%

DETERMINATION OF THE TRUSTS' ESTIMATED LIFETIME LOSSES

25. The "Estimated Lifetime Losses" for the Trusts are determined by adding (a) the actual losses that are incurred when a loan is foreclosed and sold through a short sale, REO or other final disposition and the losses are allocated to the trust ("Actual Liquidated Losses"), and (b) the losses forecasted on the remaining outstanding unpaid principal balance ("Outstanding UPB") for the remaining life of the Trusts ("Forecasted Remaining Lifetime Losses"). The analysis below is based on data obtained from the Debtors, from Intex,[9] from the Debtors' Vision website[10] ("Vision"), and from other industry sources including SEC filings. From these sources, I have estimated the Trusts' Estimated Lifetime Losses and the Potential Repurchase Requirements ranges based on Actual Liquidated Losses plus Forecasted Remaining Lifetime Losses by Payment Status, by Shelf, and by Mortgage Loan Product utilizing "Frequency Rate" and "Severity Rate" assumptions as described below.

26. The Actual Liquidated Losses for the Trusts is $30.3 billion. This figure was obtained from Intex, and the unpaid principal balance ("UPB") of the

[8] As noted above, the Debtors' PLS repurchase data is incomplete due to the large number of PLS repurchase demands that have not completed the repurchase process, largely due to pending litigation. Accordingly, I focused on the GSE repurchase experience instead.

[9] Intex is a subscription-based provider of RMBS loan-level data and cash flow models. Intex data was provided by the Debtors.

[10] The Debtors' Vision website contains RMBS Trust information, monthly servicing certificate statements, prospectus supplements, and operating documents in addition to loan-level data files.

liquidated loans at the time of liquidation ("Trusts' Liquidated Loans") was obtained from the Debtors.

27. The Forecasted Remaining Lifetime Losses for the Trusts are determined by multiplying (i) the Outstanding UPB, (ii) the Frequency Rate assumptions, and (iii) the Severity Rate assumptions.

A. OUTSTANDING UPB FOR THE TRUSTS

28. For purposes of this Declaration, the data for the Outstanding UPB of the Trust was as of March 31, 2012 ("Cut-Off Date").

29. Fortace obtained and stratified the Trusts' Outstanding UPB data by Payment Status obtained from Intex and by Shelf and by Mortgage Loan Product group obtained from both Vision and the Debtors. The "Payment Status" buckets used for this analysis were as follows: (a) "Current", the mortgage payments are paid up to date, (b) "30-59 Days Delinquent": the mortgage payments are 30-59 days past due, (c) "60-89 Days Delinquent": the mortgage payments are 60-89 days past due, (d) "90+ Days Delinquent & REO": the mortgage payments are 90 or more days past due or the property has been acquired through foreclosure, often referred to as real estate owned ("REO"), and (e) "Foreclosure": the Servicer is in the legal process of acquiring the property from the defaulted borrower.

30. The Trusts' Outstanding UPB as of the Cut-Off Date is $62.4 billion.

B. FREQUENCY RATE ASSUMPTIONS

31. The "Frequency Rate" is defined as the percentage of loans in a mortgage portfolio that are projected to be liquidated with a loss through foreclosure sale, REO sale, short sale or charge-off. The Frequency Rate, also known in the industry as

the "Roll Rate", represents the projected likelihood that a group of loans will "roll" from current or delinquent status to defaulted and liquidated. The Frequency Rate and the Severity Rate are industry standards utilized to forecast future losses for an RMBS Trust and are two key assumptions utilized by credit rating agencies when rating RMBS Certificates, by mortgage investors when evaluating RMBS Certificates and by Banks when evaluating loan loss reserves.

32. I reviewed the May 2012 Frequency Rates for one Trust from each of the eight Debtors' Shelves. I then compared the Trusts' Frequency Rates to Frequency Rates provided by other industry sources, such as the BofA Expert Report[11] and the Lehman Expert Declaration,[12] to develop our Frequency Rate assumptions. The Frequency Rate assumptions utilized in this Declaration are similar to those used in the BofA Expert Report and the Lehman Expert Declaration.

33. These Frequency Rates were then applied first by Payment Status, then by Shelf, then by Mortgage Loan Product for both the lower and higher ranges. These Frequency Rates were then assumed to have a flat Roll Rate to liquidation, which means the Frequency Rates were not varied with the passage of time or other variables.

34. The average Frequency Rates for the Trusts assumed in this analysis are 36% at the lower range and 41% at the higher range.

[11] *See* Exhibit C hereto: The RRMS Advisors Opinion Concerning Contemplated Settlement Amount for 530 Trusts, dated June 7, 2011.

[12] See Exhibit D hereto: The Lehman Brothers Holdings Inc. Declaration of Zachary Trumpp filed January 12, 2012.

C. SEVERITY RATE ASSUMPTIONS

35. The "Severity Rate", also known as the "Default Rate", represents the percentage of losses associated with a loan or group of loans which default and are liquidated though foreclosure sale, REO sale, short sale or charge-off.

36. I reviewed the actual Severity Rates to date, based on the Actual Liquidated Losses for the Trusts by Shelf and by Mortgage Loan Product, and adjusted them to current market conditions based on the latest three-month actual Severity Rates obtained from Intex, by Shelf and by Mortgage Loan Product.

37. Once we determined our Severity Rates they were then applied by Shelf and by Mortgage Loan Product on a flat severity basis.

38. The average Severity Rates for the Trusts assumed in this analysis are 68% at the lower range and 78% at the higher range.

D. FORECASTED REMAINING LIFETIME LOSSES

39. Applying the Frequency Rate and Severity Rate assumptions to the Outstanding UPB, I determined a potential range for such Forecasted Remaining Lifetime Losses for the Trusts. Assuming that this liability can be demonstrated, the lower end of the possible range for such losses, calculated using the metrics and assumptions shown in the following chart, was $15.4 billion.

LOWER RANGE (in billions)				
Payment Status As of March 31, 2012	Trusts Outstanding UPB	Frequency Rate	Severity Rate	Forecasted Remaining Lifetime Loss
Current (Non-Modified)	$34.1	11%	72%	$2.8
Current (Modified)	$11.3	36%	68%	$2.8
30-59 Days Delinquent	$2.2	15%	68%	$0.2
60 – 89 Days Delinquent	$1.0	84%	66%	$0.6
90+ Days Delinquent & REO	$6.3	96%	67%	$4.0
Foreclosure	$7.5	99%	67%	$5.0
Total	**$62.4**	**36%**	**68%**	**$15.3**

40. Assuming that this liability can be demonstrated, the higher end of possible range for such losses for the Trusts, calculated using the metrics and assumptions shown in the following chart, was $19.5 billion.

HIGHER RANGE (in billions)				
Payment Status As of March 31, 2012	Trusts' Outstanding UPB	Frequency Rate	Severity Rate	Forecasted Remaining Lifetime Loss
Current (Non-Modified)	$34.1	17%	80%	$4.6
Current (Modified)	$11.3	41%	78%	$3.6
30-59 Days Delinquent	$2.2	20%	77%	$0.3
60-89 Days Delinquent	$1.0	87%	75%	$0.7
90+ Days Delinquent & REO	$6.3	97%	75%	$4.6
Foreclosure	$7.5	99%	77%	$5.7
Total	**$62.4**	**41%**	**78%**	**$19.5**

41. The following chart shows a comparison of the assumptions made for the Frequency Rate and Severity Rate to those used in the BofA Expert Report and Lehman Expert Declaration.

Description	Frequency Rate Assumptions		Severity Rate Assumptions	
	Lower Range	Higher Range	Lower Range	Higher Range
Trusts	36%	41%	68%	78%
BofA Expert Report	44%	47%	45%	60%
Lehman Expert Declaration	25%	45%	45%	55%

42. The Frequency Rate assumptions for the lower range are similar in this Declaration and the BofA Expert Report, with lower range assumption in the Lehman Expert Declaration again representing a more aggressive assumption based on my experience. The Frequency Rate assumptions for the higher range are all similar. The Severity Rate assumptions utilized in this Declaration are primarily driven by the actual Severity Rates for the Trusts' Liquidated Loans which are meaningfully higher in both the lower ranges and the higher ranges than those used in the BofA Expert Report and the

Lehman Expert Declaration. I assumed that the actual Severity Rates for the BofA loans and Lehman loans must be meaningfully lower than the Trusts' actual Severity Rates, thus justifying BofA's and Lehman's lower Severity Rate assumptions. Based on the actual historical Trust Frequency Rates and Severity Rates, these Frequency Rate assumptions and Severity Rate assumptions are, in my professional opinion, reasonable for the Trusts.

E. ESTIMATED LIFETIME LOSSES

43. By adding the Actual Liquidated Losses to the range of Forecasted Remaining Lifetime Losses, I determined that the Estimated Lifetime Losses for the Trusts range between $45.6 billion on the lower end, and $49.8 billion on the higher end. The calculation of these numbers is expressed in the following chart:

(in billions)	Lower Range	Higher Range
Actual Liquidated Losses	$30.3	$30.3
Forecasted Remaining Lifetime Loss	$15.3	$19.5
Trusts Estimated Lifetime Losses	**$45.6**	**$49.8**

LOSS SHARE RATE

44. As defined above, the Loss Share Rate is the percentage of Estimated Lifetime Losses that the Debtors might agree to share with the Trusts as a result of potential breaches of representations and warranties.

45. For the purposes of this Declaration, the Loss Share Rate is defined as the product of (a) the "Breach Rate," and (b) the "Agree Rate."

46. The Breach Rate is defined as the product of (a) the "Audit Rate" and (b) the "Demand Rate."

A. AUDIT RATE

47. The Audit Rate is defined as the percentage of loans in a given mortgage portfolio that are audited by the Trustee or other parties authorized under the Governing Agreements for the purpose of finding alleged representation and warranty breaches. To make this calculation, one must first determine the Audit Rate on a group of loans or the Trustee loan audit selection criteria designed to identify loans with a high likelihood of representation and warranty breaches.

48. Since a Trustee's audit selection methodology is proprietary to the Trustee and not shared with the Seller, there is very little publicly available information regarding GSE or PLS Trustee Audit Rates or loan audit selection criteria. I did find one recent report from September 2011 from the FHFA OIG[13] that provides some unique insight into both Fannie Mae's and Freddie Mac's Audit Rate and loan audit selection criteria.

49. The FHFA OIG reported that Freddie Mac reviews for repurchase claims only those loans that go into foreclosure or experience payment problems during the first two years following origination. Loans that default after the first two years are reviewed at dramatically lower rates. The report goes on to note that a Freddie Mac senior examiner believed that this narrower selection criterion resulted in a lower population of loans with defects than would have been discovered if all loans that go into foreclosure or liquidation were considered.

50. Additionally, the FHFA OIG report contained an FHFA Memorandum, written by Jeffrey Spohn, which stated that the longstanding business

[13] *See* Exhibit E hereto: The FHFA OIG Evaluation of the Federal Housing Finance Agency's Oversight of Freddie Mac's Repurchase Settlement with Bank of America, dated September 27, 2011.

practice for both Fannie Mae and Freddie Mac has been to review non-performing loans principally but not exclusively on mortgages that default in the first few years. This business practice stems from the belief that defaults that occur in the first few years provide the best opportunity to learn why loans go into default, while most later defaults are unlikely to be related to manufacturing defects (they more typically reflect life events such as unemployment, divorce or health issues), and that manufacturing defects become harder to prove with the passage of time.

51. In his memo, Mr. Spohn agreed with the FHFA OIG report that Freddie Mac and FHFA needed to reassess their loan audit selection criteria with the potential to broaden their selection criteria to include a larger population of loans that go into foreclosure or liquidation.

52. It has been my experience working with mortgage insurance companies and for banks issuing repurchase demands to their wholesale and correspondent sellers, that it is a standard industry practice to select more than just loans that go to foreclosure or liquidation in the first two years for loan audits. A more prevalent industry practice is to first evaluate all loans that go to foreclosure or liquidation and then exclude a portion of the loans that defaulted due to a documented hardship (or life event as noted in the FHFA Memorandum) such as loss of a job, reduction of income, major illness, or those loans that defaulted after 24-36 months of perfect pay history. The reasoning behind this reduction or discount is that these excluded loans likely defaulted because of the borrower hardship or some reason other than a loan defect. This is consistent with the reasoning utilized by FHFA, Fannie Mae and Freddie Mac in their Audit Rate selection criteria. Even the mortgage insurance

companies, who have been among the most aggressive pursuers of insurance rescissions, have often excluded loans with perfect pay histories from their Audit Rate selection criteria. I have observed with my clients Audit Rates ranging from approximately 65% to 90% of Forecasted Liquidated Loans with reductions in the Audit Rates for perfect loan payment histories and borrower hardships.

53. Based on my Audit Rate experience and the FHFA OIG findings and recommendations, I have assumed for purposes of this Declaration the following Audit Rate assumptions:

Description	Audit Rate Assumptions	
	Lower Range	Higher Range
Trusts Liquidated Loans	70%	75%
Current (Non-Modified)	15%	30%
Current (Modified)	45%	50%
30-59 Days Delinquent	70%	75%
60-89 Days Delinquent	70%	75%
90+ Days Delinquent & REO	70%	75%
Foreclosure	70%	75%
Total Average	**65%**	**69%**

54. I note that neither the BofA Expert Report nor the Lehman Expert Declaration discussed its Audit Rate assumptions but simply provided the Breach Rate which, as defined above, is the product of (a) the Audit Rate and (b) the Demand Rate.

B. DEMAND RATE AND DEMAND PROCESS

55. As part of the Trustee's loan-level audit and repurchase demand decision process, the Trustee requires the loan auditor to perform the following review as part of the loan-level audit: (1) identify any potential contractual breaches (such as failure to comply with the seller's underwriting guidelines), (2) document the alleged breach facts, (3) opine as to whether or not such alleged breach is material and (4) opine as to whether or not such alleged breach was adverse to the interests of the Certificate Holders.

As we discussed above, the alleged breach must meet the R&W Repurchase Standard in order to contractually require the Seller to repurchase the loan.

56. The Demand Rates for the GSEs are not publicly available. There are Demand Rates that have been alleged in some PLS repurchase-related litigation against various Sellers, including the Debtors. These PLS litigation Demand Rates are unsubstantiated, appear to be inflated and are vigorously disputed by the Sellers. Lastly, neither the BofA Expert Report nor the Lehman Expert Declaration discussed its Demand Rate assumptions. Therefore, I based my Demand Rate assumptions on my repurchase demand experience. I have assumed for purposes of this Declaration the following Demand Rate assumptions:

Description	Demand Rate assumptions	
	Lower Range	Higher Range
Trusts' Liquidated Loans	55%	65%
Current (Non-Modified)	30%	40%
Current (Modified)	50%	60%
30-59 Days Delinquent	55%	65%
60-89 Days Delinquent	55%	65%
90+ Days Delinquent & REO	55%	65%
Foreclosure	55%	65%
Total Average	**54%**	**64%**

C. BREACH RATE

57. The Breach Rate was determined by multiplying the Audit Rate assumptions by the Demand Rate assumptions. Based on this calculation, I determined that the Breach Rate assumptions for the Trusts range between 36% and 44%. The following chart shows a comparison of this Breach Rate to that used in the BofA Expert Report and Lehman Expert Declaration:

Description	Breach Rate Assumptions	
	Lower Range	Higher Range
Trusts	36%	44%
BofA Expert Report	36%	36%
Lehman Expert Declaration	30%	35%

58. The Breach Rate assumptions for the lower range are the same in this Declaration and the BofA Expert Report, while the Lehman Expert Declaration lower range is a more aggressive assumption than in this Declaration or the BofA Expert Report, based on the Alt-A and Subprime mortgage loan products securitized by Lehman, which in my experience have historically yielded higher alleged representation and warranty breaches. The Breach Rate assumptions for the higher range utilized in this Declaration are higher than those used in both the BofA Expert Report and the Lehman Expert Declaration. I concluded that higher Breach Rate assumptions used in this Declaration are the result of my more conservative view of potential Breach Rates. Given the above, these Breach Rate assumptions are in my professional opinion reasonable for the Trusts.

D. AGREE RATE

59. The Agree Rate is the percentage of Demands issued by the Trustee that the Seller agrees to repurchase or make whole. While the Trustee may issue a Demand alleging one or more representation and warranty breaches, the Seller may not agree with the alleged breach facts. Then, even if the Seller does agree with the alleged breach facts, the Seller will not always agree that the breach meets the R&W Repurchase Standard as described above.

60. Prior to March 2012, there was not much in terms of public disclosures with any insight into Agree Rates for alleged breaches of representations and

warranties. However, beginning in March of 2012, Fannie Mae, Freddie Mac and over a dozen Private Label Sellers have filed Regulation AB 15-G repurchase demand data with the SEC, including Agree Rates.

61. Based on the IMF Special Report, the average GSE Agree Rates for all Sellers was 49.54% and 67.56% for the Debtors. In our assumptions, we discount the GSE Agree Rates based on the less stringent representations and warranties found in the Trusts' Governing Agreements when compared to the stronger representations and warranties found in the Fannie Mae and Freddie Mac agreements. 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 both lower standards than are found in Fannie Mae or Freddie Mac agreements.

62. Based on the above and in consideration of the costs, risks and uncertainties if the parties do not mutually agree on the repurchase population and have to resort to litigation to resolve their differences, we have discounted the Debtors' GSE Agree Rates and have assumed the Trusts' Agree Rate ranges between a low of 41% and a high of 47%. The following chart shows a comparison of this Agree Rate to that used in the BofA Expert Report and Lehman Expert Declaration:

Description	Agree Rate Assumptions	
	Lower Range	Higher Range
Trusts	41%	47%
BofA Expert Report	40%	40%
Lehman Expert Declaration	30%	40%

63. The Agree Rate assumptions for the lower range are similar in this Declaration and the BofA Expert Report, while the Lehman Expert Declaration lower range assumption is a more aggressive assumption than in my Declaration or the BofA Expert Report. The Agree Rate assumptions for the higher range utilized in this Declaration are higher than those used in both the BofA Expert Report and the Lehman Expert Declaration. I concluded that higher Agree Rate assumptions in this Declaration are correlated to the Debtors' substantially higher actual Agree Rates with the GSEs when compared to the industry as a whole, 67.56% versus 49.54%. Given the above, these Agree Rate assumptions are in my professional opinion reasonable for the Trusts.

E. LOSS SHARE RATE AND POTENTIAL LIABILITY

64. The Loss Share Rate was determined by multiplying the Breach Rate times the Agree Rate. Based on this calculation, I determined that the Loss Share Rate for the Trusts ranges between 15% and 21%.

65. The following chart shows a comparison with the calculated Loss Share Rates used in the BofA Expert Report and Lehman Expert Declaration.

Description	Loss Share Rate Assumptions	
	Lower Range	Higher Range
Trusts	15%	21%
BofA Expert Report	14%	14%
Lehman Expert Declaration	9%	14%

66. The higher Loss Share Rate assumptions in this Declaration, when compared to the Loss Share Rate assumptions in both the BofA Expert Report and the Lehman Expert Declaration, are the result of the higher assumed Trust Agree Rates, which results in the higher Debtors' Loss Share Rates.

POTENTIAL REPURCHASE REQUIREMENTS

67. For purposes of this Declaration, I was asked to calculated the Debtors' Potential Repurchase Requirements and assume that the Trusts were capable of proving a breach of representations and warranties under the Governing Agreements in certain claims against the Debtors. This calculation is the product of (a) the Trusts' Estimated Lifetime Losses and (b) the Loss Share Rate.

68. Utilizing the figures stated above in this Declaration, the range of Potential Repurchase Requirements is $6.7 billion to $10.3 billion. The following chart shows the metrics for determining the low end of the range for the Debtors' Loss Share Rate and corresponding Potential Repurchase Requirements:

LOWER RANGE (in billions)								
Description	Current Outstanding Trusts' UPB	Frequency Rate	Severity Rate	Trusts' Estimated Lifetime Losses	Breach Rate	Agree Rate	Loss Share Rate	Potential Repurchase Requirements
Trusts' Liquidated Loans				$30.3	39%	42%	16%	$4.9
Current (Non-Modified)	$34.1	11%	72%	$2.8	5%	13%	.6%	$0.02
Current (Modified)	$11.3	36%	68%	$2.8	23%	32%	7%	$0.2
30-59 Days Delinquent	$2.2	15%	68%	$0.2	39%	42%	16%	$0.04
60-89 Days Delinquent	$1.0	84%	66%	$0.6	39%	42%	16%	$0.09
90+ Days Delinquent	$6.3	96%	67%	$4.0	39%	42%	16%	$0.6
Foreclosure	$7.5	99%	67%	$5.0	39%	42%	16%	$0.8
							15%	**$6.7**

69. The following chart shows the metrics for determining the high end of the range for the Debtors' Loss Share Rate and corresponding Potential Repurchase Requirements:

HIGHER RANGE (in billions)								
Description	Current Outstanding Trusts' UPB	Frequency Rate	Severity Rate	Trusts' Estimated Lifetime Losses	Breach Rate	Agree Rate	Loss Share Rate	Potential Repurchase Requirements
Trusts' Liquidated Loans				$30.3	49%	48%	23%	$7.1
Current (Non-Modified)	$34.1	17%	80%	$4.6	12%	23%	3%	$0.1
Current (Modified)	$11.3	41%	78%	$3.6	30%	43%	13%	$0.4
30-59 Days Delinquent	$2.2	20%	77%	$0.3	49%	48%	23%	$0.08
60-89 Days Delinquent	$1.0	87%	75%	$0.7	49%	48%	23%	$0.2
90+ Days Delinquent	$6.3	97%	75%	$4.6	49%	48%	23%	$1.1
Foreclosure	$7.5	99%	77%	$5.7	49%	48%	23%	$1.2
							21%	**$10.3**

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CONCLUSION

70. In summary, I utilized two generally accepted methodologies for forecasting Trust lifetime loss ranges and developing repurchase-related assumptions based on the Debtors' historical loan loss data, including frequency and severity rates, current payment statuses, Shelf, mortgage loan product, and the Debtors' prior repurchase experience. These two methodologies are regularly used by market participants, financial institutions and experts to estimate repurchase exposures, including estimates provided by financial institutions in their regulatory filings, and independent third-party expert reports. Accordingly, the methodologies that I used in this Declaration are generally accepted in the industry as a sound means of estimating repurchase exposure. Based on my analysis described above, it is my opinion to a reasonable degree of certainty that the proposed Allowed Claim of $8.7 billion appears to be in the range of reasonableness. I swear under penalty of perjury that the foregoing is true and correct.

Dated: June 11, 2012

Frank Sillman

Exhibit C

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Counsel for the Debtors
and Debtors in Possession

UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF NEW YORK

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

SUPPLEMENTAL DECLARATION OF FRANK SILLMAN IN SUPPORT OF DEBTORS' MOTION PURSUANT TO FED. R. BANKR. P. 9019 FOR APPROVAL OF THE RMBS TRUST SETTLEMENT AGREEMENTS

I, Frank Sillman, being duly sworn, depose and say:

1. I serve as Managing Partner for Fortace, LLC ("Fortace")[1] an advisory and consulting firm to banks, mortgage companies, insurance companies, trustees and other investors. I am authorized to submit this Supplemental Declaration (the "Supplemental Declaration") on behalf of the Debtors in connection with their motion pursuant to Rule 9019 of the Federal Rules of Bankruptcy Procedure for approval of RMBS Trust Settlement Agreements. This Supplemental Declaration

[1] Capitalized terms not otherwise defined herein are as defined in the Original Declaration, in the RMBS Trust Settlement Agreement, or in the Governing Agreements for each of the Debtors' Trusts, or in the defined terms incorporated by reference therein.

reflects the Estimated Loan Loss work performed since my original declaration ("Original Declaration") and I reserve the right to augment and refine the analysis as my work is ongoing.

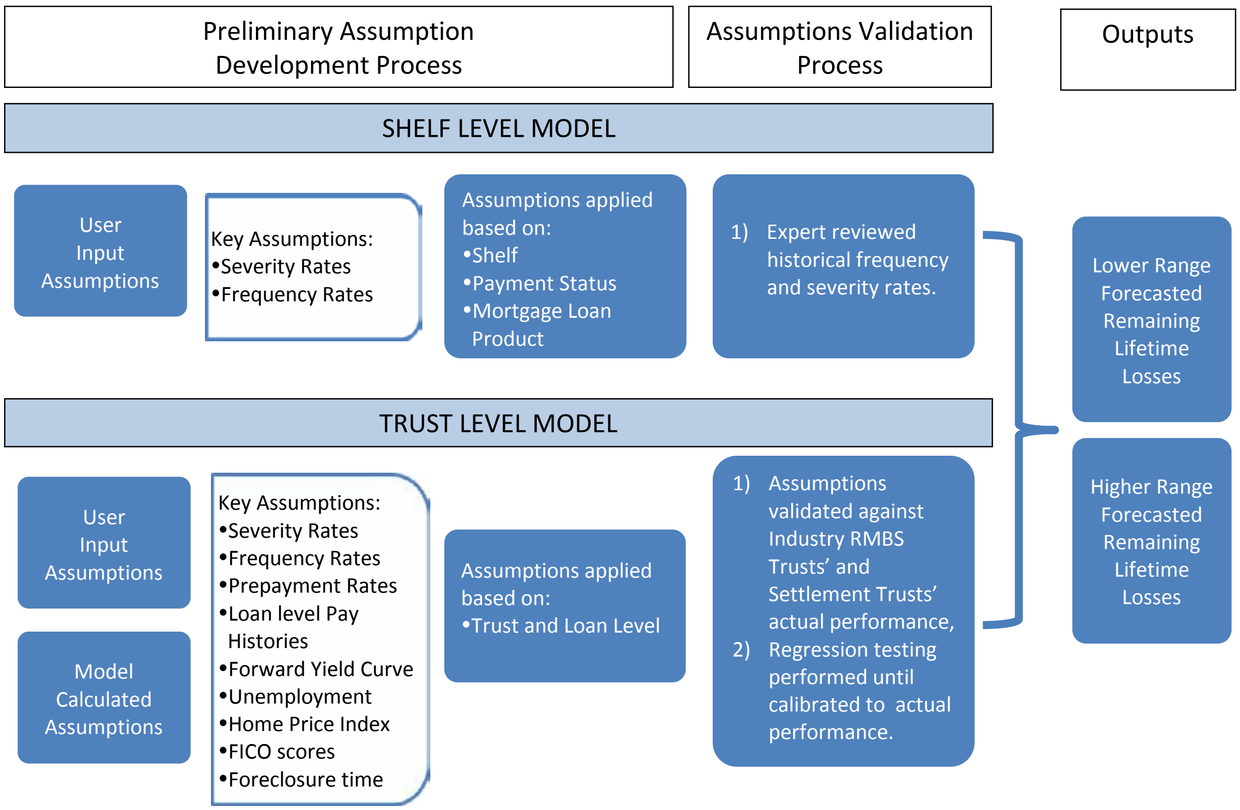
2. Except as otherwise indicated, all statements in this Supplemental Declaration are based upon my review of the cash flow and Estimated Lifetime Loss model output, the relevant documents, my discussions with the Debtors and their professionals, and my personal knowledge and expert experience. If I were called upon to testify, I could and would testify to each of the facts set forth below.

INTRODUCTION

3. As I discussed in my Original Declaration, the first step in estimating the range of potential repurchase liability for the Debtors ("Potential Repurchase Requirements") is developing the potential cumulative lifetime loss ranges ("Estimated Lifetime Losses") for the 392 Trusts included in the RMBS Trust Settlement ("Settlement Trusts").

4. In my Original Declaration, I discussed that there are a variety of methods accepted in the financial services industry to estimate RMBS Trust lifetime losses. In my Original Declaration I utilized one of those methods, the Shelf Level Estimated Lifetime Loss methodology ("Shelf Level Model"), to develop the Estimated Lifetime Losses. For this Supplemental Declaration, I utilized another of the accepted methods to supplement the Estimated Lifetime Loss model work I performed in my Original Declaration. For this Supplemental Declaration, I employed the more granular and detailed Loan Level and Trust Level Estimated Lifetime Loss model ("Trust Level Model") process for the Settlement Trusts. The Trust Level Model process is regularly used by market participants and financial institutions to estimate repurchase exposure, including estimates provided by financial institutions in their regulatory filings. Both the Shelf Level Model and the Trust Level Model methods utilize similar frequency and severity rate-based forecasting and historically based assumption development methodologies. Accordingly, the Trust Level Model

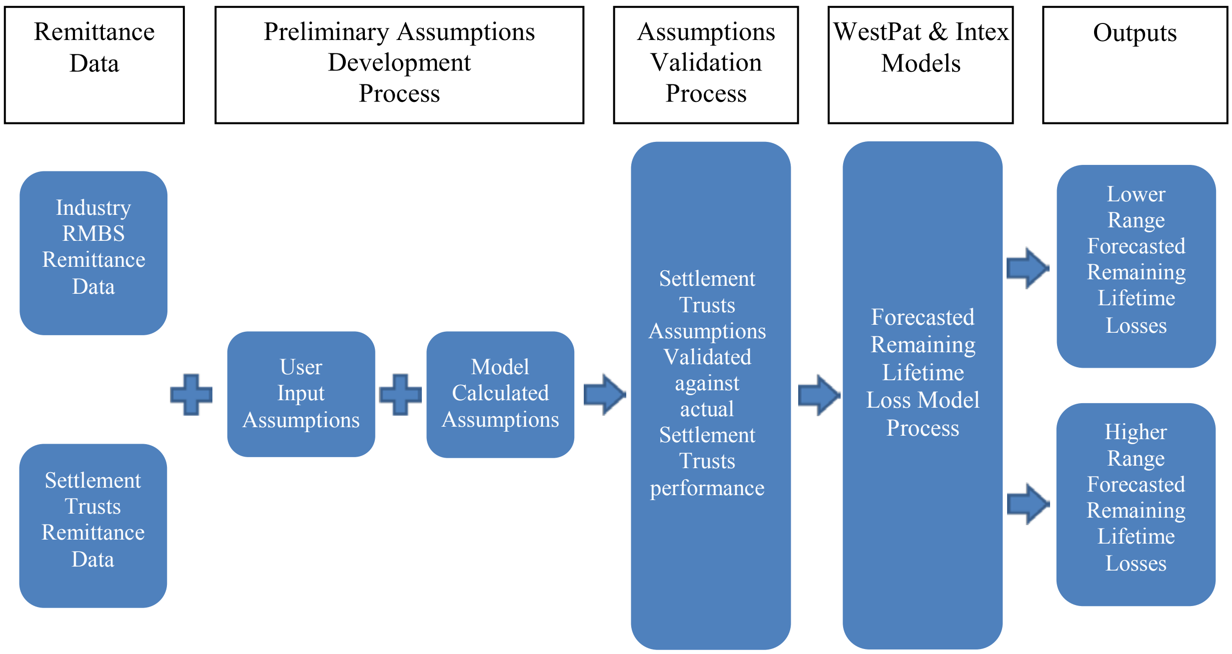
methodology that I used in this Supplemental Declaration is generally accepted in the industry as a sound means of forecasting estimated lifetime losses and estimating potential repurchase liability. The Trust Level Model process I utilized in the development of the Estimated Lifetime Losses ranges in this Supplemental Declaration is described below.



DETERMINATION OF THE SETTLEMENT TRUSTS'

ESTIMATED LIFETIME LOSSES

Trust Level Model Process Overview



5. Step 1 - The first step in developing estimated loss ranges for RMBS Trusts is to obtain the historical borrower loan payment remittance data ("Remit Data") for both (1) the Settlement Trusts, and (2) other industry RMBS Trusts which consist of loan products and securitization structures similar to the Settlement Trusts[2]. This Remit Data contains hundreds of data fields including loan level payment histories, prepayment data, default data and loan level losses. The Remit Data may be available on either a loan level basis or at a trust level basis. For the 392 Settlement Trusts, we were able to obtain loan level data from Loan Performance[3] ("LP") for 352 Settlement Trusts, Intex[4] loan level data for 16 Settlement Trusts and Intex trust level data for 23 Settlement Trusts. We utilized Remit Data from May 2012.

[2] WestPat model groups the RMBS Trusts into the following categories: Alt A/Sub Prime, Prime, HELOC & Fixed 2nds.
[3] CoreLogic Loan Performance is a provider of RMBS Trust loan remittance data.
[4] Intex Solutions, Inc. is a provider of structured fixed income cash flow models and RMBS Trust loan remittance data.

6. Step 2a – I employed WestPat LLC to run their proprietary RMBS estimated loss and cash flow model (the "WestPat Model") to determine Estimated Lifetime Loss ranges for the Settlement Trusts for which loan level Remit Data was available. The WestPat Model requires loan level Remit Data. The WestPat Model is a commercially available estimated loss and cash flow model used by mortgage lenders, mortgage bond investors and money managers to estimate loan losses, cash flows and value RMBS mortgage bonds.

7. Step 2b – For the 23 Settlement Trusts for which only trust level Remit Data was available, I utilized the Intex Model, as defined below, to determine Estimated Lifetime Loss ranges. The Intex Model is a commercially available cash flow model used by mortgage lenders, mortgage bond investors and money managers to estimate loan losses, cash flows and value RMBS mortgage bonds ("Intex Model").

8. Step 3 – WestPat and Intex Model assumption requirements and discussion:

(a) WestPat Model assumptions:

(i) The WestPat Model independently develops its Validated Settlement Trusts Assumptions for forecasting cash flows and estimated losses from actual historical performance of certain key data elements ("HIST PERF") from the Remit Data for each of the Settlement Trusts:

(a) Actual Trust Losses to date.

(b) Actual Severity Rates to date.

(c) Actual Constant Default Rates to date ("CDR") aka Roll Rates aka Frequency Rates.

(d) Actual Voluntary Constant Prepayment Rates ("VCPR").

(e) Actual Loan Level Payment Histories to date ("PAY HIST") aka Pay Strings.

(ii) Additionally, I provided a few macro economic assumptions to WestPat for use in the WestPat Model based on industry available data and my expert experience in developing these assumptions:

(a) Forward Yield Curve from 6/20/12.

(b) The unemployment rate[5] utilized was 8.1% from April 2012. The unemployment rate was held constant for the life of the loans.

(c) The current Combined Loan To Value ("CLTV") was calculated using Case-Shiller[6] home price data as of April 2012. The model uses the zip code when available. If the zip code is not available, the model uses Metropolitan Statistical Area ("MSA") level or state level data. Once the CLTV is updated, it is varied over time based on our Forward Home Price Index assumptions described below.

(d) FICO scores - The model does not update Borrowers' FICO scores, the model utilizes the Borrowers' origination FICO scores.

(e) LP and Intex Remit Data reflect the RMBS Trusts' actual Losses to Date after applying any mortgage insurance claims paid to the Trusts. The LP and Intex Remit Data do not include any Monoline insurance claims paid to the Trustee for the benefit of the CertificateHolders.

(f) Forward Home Price Index ("HPI") for distressed home sales.

(g) The WestPat Model varies time to foreclosure by state. The WestPat Model utilized time to foreclosure history through March 2012.

(b) Intex Model assumptions:

(i) The Intex Model requires the user to develop and input assumptions into the model. I provided assumptions for use in the Intex Model based on industry available data and my expert experience in developing these assumptions:

(a) Forward Yield Curve from 6/20/12.

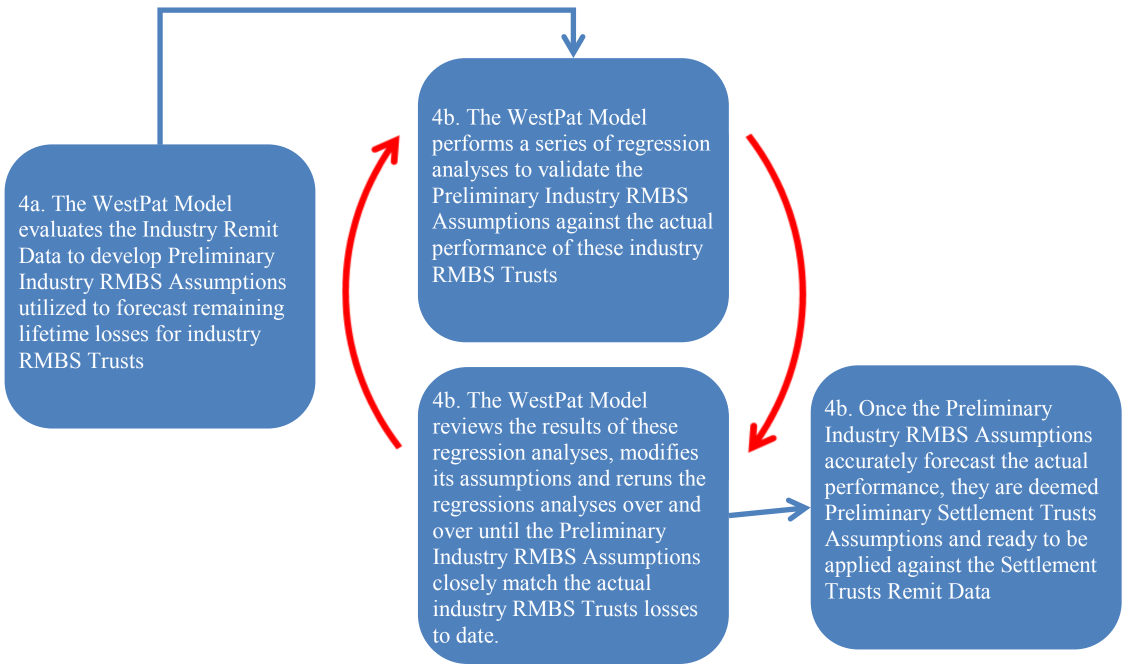
(b) VCPR – determined after reviewing each individual Settlement Trusts' 6 month, 12 month and monthly time series trends.

[5] U.S. Bureau of Labor Statistics.
[6] S&P/Case-Shiller Home Price Index is a leading measure of the U.S. residential housing market.

(c) CDR - determined after reviewing each individual Settlement Trusts' 6 month, 12 month and monthly time series trends.

(d) Severity Rates - determined after reviewing each individual Settlement Trusts' monthly time series Severity trends.

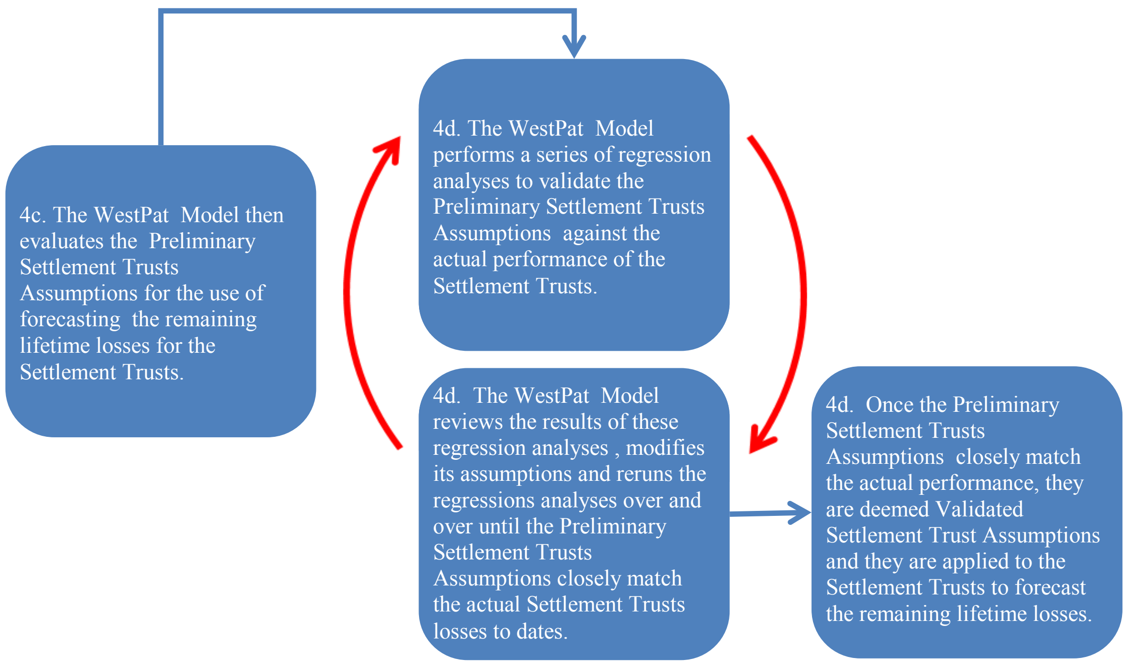
Validating the Industry RMBS Assumptions



9. Step 4a – The WestPat Model evaluates RMBS Trust historical Remit Data for loan products and securitization structures similar to the Settlement Trusts from the available industry Remit Data from LP or Intex ("Industry RMBS Remit Data") to develop the Preliminary Industry RMBS Assumptions utilized to estimate the remaining lifetime losses for these industry RMBS Trusts.

10. Step 4b - The WestPat Model then performs a series of regression analyses to validate the Preliminary Industry RMBS Assumptions against the actual performance of these Industry RMBS Trusts to create the validated assumptions for the industry RMBS Trusts ("Validated Industry RMBS Trust Assumptions").

Validating the Settlement Trusts Assumptions and Forecasted Remaining Lifetime Losses



11. Step 4c - The WestPat Model then applies these Validated Industry RMBS Trust Assumptions to the Settlement Trusts ("Preliminary Settlement Trusts Assumptions"). The WestPat Model then performs a series of regression analyses to validate these Preliminary Settlement Trusts Assumptions against the actual performance of the Settlement Trusts to obtain the validated Settlement Trust assumptions ("Validated Settlement Trusts Assumptions").

12. Step 4d - After this last regression analysis step, the WestPat Model then utilizes the Validated Settlement Trusts Assumptions for each of the 369 Settlement Trusts to forecast the Remaining Lifetime Losses for the Settlement Trusts.

13. Step 5 - Determining the Forecasted Remaining Lifetime Losses for the Settlement Trusts: I added the Forecasted Remaining Lifetime Losses from the both the WestPat and Intex Models for both the lower and higher ranges. The calculations are illustrated below:

			Forecasted Remaining Lifetime Losses (in billions)	
Model	Data Source	# of Trusts	Lower Range	Higher Range
WestPat	LP	353	$11.7	$14.7
WestPat	Intex	16	$0.2	$0.2
Intex	Intex	23	$1.0	$1.3
Total		**392**	**$12.9**	**$16.2**

14. Step 6 - Determining the Actual Losses to Date for the Settlement Trusts: I added the Actual Trust Losses to Date for the Settlement Trusts from both the LP and Intex Remit Data. The calculations are illustrated below:

Actual Settlement Trust Losses to Date (in billions)		
Data Source	# of Trusts	Actual Losses to Date
LP	353	$26.9
Intex	16	$1.6
Intex	23	$2.1
Total	**392**	**$30.6**

15. Step 7 – Determining the Total Estimated Lifetime Loss ranges for the Settlement Trusts: I added the Total Actual Trust Losses to Date for the Settlement Trusts to the Forecasted Remaining Lifetime Losses for the Settlement Trusts to determine the Total Estimated Lifetime Loss for both the lower and higher ranges for the Settlement Trusts. The calculations are illustrated below:

LOWER RANGE (in billions)					
Model	Data Source	# of Trusts	Actual Losses to Date	Forecasted Remaining Lifetime Losses	Total Estimated Lifetime Losses
WestPat	LP	353	$26.9	$11.7	$38.6
WestPat	Intex	16	$1.6	$0.2	$1.8
Intex	Intex	23	$2.1	$1.0	$3.1
Total		**392**	**$30.6**	**$12.9**	**$43.5**

HIGHER RANGE (in billions)					
Model	Data Source	# of Trusts	Actual Losses to Date	Forecasted Remaining Lifetime Losses	Total Estimated Lifetime Losses
WestPat	LP	353	$26.9	$14.7	$41.6
WestPat	Intex	16	$1.6	$0.2	$1.8
Intex	Intex	23	$2.1	$1.3	$3.4
Total		**392**	**$30.6**	**$16.2**	**$46.8**

16. The Total Estimated Lifetime Loss ranges determined in this Supplemental Declaration are similar to the Total Estimated Lifetime Loss ranges determined in my Original Declaration. See the comparison in the following charts:

	Total Estimated Lifetime Losses (in billions)	
	Orig. Decl.	Suppl. Decl.
Lower Range	$45.6	$43.5
Higher Range	$49.8	$46.8

Comparison of models by Shelf:

Total Estimated Lifetime Losses (in billions)				
Shelf	Lower Range		Higher Range	
	Orig. Decl.	Suppl. Decl.	Orig. Decl.	Suppl. Decl.
GMACM	$3.4	$3.3	$3.8	$3.6
RAAC	$0.8	$0.7	$0.9	$0.8
RAAC RP	$1.3	$1.2	$1.3	$1.4
RALI	$16.1	$15.7	$17.8	$17.1
RAMP	$8.3	$8.0	$8.9	$8.5
RASC	$10.6	$9.9	$11.4	$10.5
RFMSI	$1.9	$1.6	$2.3	$1.8
RFMSII	$3.2	$3.1	$3.4	$3.1
Total Est. Lifetime Losses	**$45.6**	**$43.5**	**$49.8**	**$46.8**

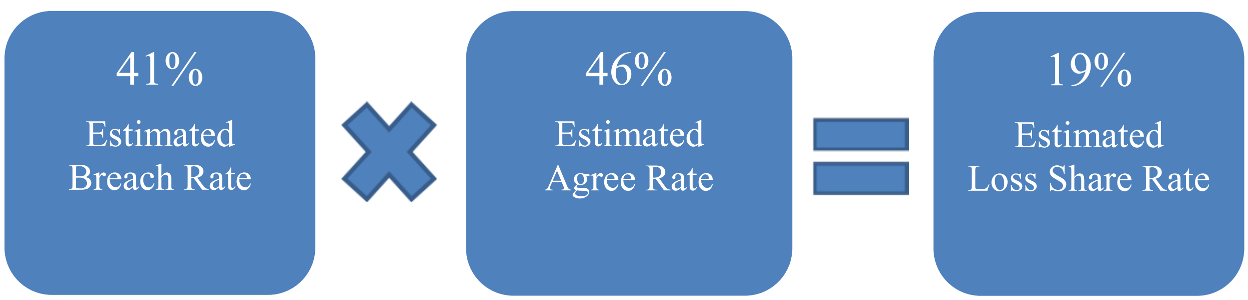
CONCLUSION

17. In summary, for this Supplemental Declaration I utilized a detailed and granular process to estimate the lifetime losses of the Settlement Trusts. This Trust Level Estimated Lifetime Loss model process is regularly used by market participants and financial institutions to estimate their repurchase exposure, including estimates provided by financial institutions in their regulatory filings.

Based on my analysis described above, both the lower and higher Estimated Lifetime Loss ranges for the Shelf Level Model and Trust Level Model in my opinion, to a reasonable degree of certainty, supports the reasonableness of the proposed Allowed Claim of $8.7 billion.

Of the $45 billion in Estimated Lifetime Trust Losses,
2/3 of the Losses have already occurred

Settling for 19% of the Estimated Lifetime Trust Losses is fair and reasonable based on the below Breach, Agree and Loss Share Rates



The Allowed Claim of $8.7 Billion
is within the range of fair and reasonable

INDUSTRY STANDARDS FOR FORECASTING REMAINING LIFETIME LOSSES

18. As I discussed in my Original Declaration, one of the key steps in estimating the range of potential repurchase liability for the Debtors ("Potential Repurchase Requirements") is forecasting the remaining lifetime losses for the Settlement Trusts utilizing an industry standard cash flow/estimated loss model.

19. I am familiar various Financial Accounting Standards Board ("FASB") statements and updates discussing acceptable valuation frameworks and methodologies for forecasting future RMBS cash flows, estimated losses and fair market values. Here are the few of those statements and updates:

(a) FASB - Statement of Financial Accounting Standards 157 - defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles ("GAAP"), and expands disclosures about fair value measurements. FASB 157 discusses three approved approaches to determining fair value, one of which is the Income approach. The Income approach allows the user to select assumptions (Level 3 inputs) such as loss severity, default rates and prepayment rate and input those assumptions into a cash flow model to determine future cash flows and losses on the underlying loans or RMBS securities.

(b) FASB Accounting Standards Update[7] – this FASB update discusses the following significant inputs for a valuation model to include the following weighted averages:

(i) Yield: XX percent (not required unless you're pricing a security)

(ii) Probability of default: XX percent constant default rate

(iii) Loss severity: XX percent

(iv) Prepayment: XX percent constant prepayment rate

[7] FASB Accounting Standards Update, No. 2010-06, January 2010.

(c) FASB approves the use of a valuation model, key user input assumptions and cash flow/estimated loss model methodologies that I utilized in both the Shelf Level and Trust Level estimated lifetime loss model process discussed in my Original Declaration and this Supplemental Declaration.

20. DBRS[8] utilizes a RMBS loss model[9] that estimates loan level default probability, loss severity and expected loss for a pool of mortgage loans to help determine its credit ratings for a particular mortgage pool or RMBS Trust.

21. As part of its modeling process, DBRS utilizes certain regional economic data such as growth in civilian labor force, per-capita income, unemployment rate and house price index at the MSA level to help its model better forecast future loses. Their model also provides users with the option to forecast certain variables such as changes in unemployment rates, housing prices, voluntary prepayment rate (CPR), liquidation timelines, months in REO properties and roll rates from 180 days delinquent to default to better forecast losses.

22. The DBRS model utilizes remittance data[10] , regional economic data[11] and Case-Schiller home price indices as inputs in its loss model.

23. The DBRS model primarily utilizes the Probability of Default (or Frequency) and the Loss Severity at default to drive its loss modeling results. These two significant components are determined by analyzing the historical remittance data of like residential mortgage loan products and RMBS securitization structures provided in the remittance data and the various user inputs discussed above.

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[8] DBRS, Inc. is a full-service credit rating agency established in 1976.
[9] DBRS' RMBS Insight: U.S. Residential Mortgage-Backed Securities Loss Model and Rating Methodology published in January 2012.
[10] Remittance data from MBS Data LLC.
[11] Regional economic data from the St. Louis Federal Reserve.

24. This modeling process including the user inputs and heavy reliance on historical remittance data to determine future assumptions is very similar to the estimated loss modeling process employed in this Supplemental Declaration.

INDUSTRY STANDARDS FOR THE REPURCHASE DEMAND PROCESS

25. As I discussed in my Original Declaration, one of the key methods utilized in estimating the range of potential repurchase liability for the Debtors ("Potential Repurchase Requirements") is to develop data on the Audit Rate, Demand Rate, Breach Rate, Agree Rate and Loss Share Rate for the loans in the Settlement Trusts. The repurchase demand process methodology I utilized in my Original Declaration is regularly used by major financial institutions such as Fannie Mae, Wells Fargo Bank and many other top national banks to manage their repurchase demand process and is commonly accepted in the industry. I am familiar with the use of this repurchase demand process methodology and I have utilized this repurchase demand process methodology over the last 10 years for Fannie Mae, Freddie Mac and various PLS RMBS sellers and clients.

Fannie Mae's Repurchase Demand Process

26. I am familiar with Fannie Mae's current National Underwriting Center ("NUC") Quality Assurance review process[12] as a result of my professional experience. The process has the following steps:

(a) Step 1 – Loans are selected for review by the National Underwriting Center ("Audit Rate").

(b) Step 2 – Loans are requested from the Lender and the Lender provides the original file and any missing documentation to Fannie Mae.

[12] Fannie Mae's National Underwriting Center Quality Assurance review process dated 2010.

(c) Step 3 - An underwriter reviews the file and records any defects both significant and informational. If any significant defects are identified, the underwriter recommends the loan be repurchased by the Lender.

(d) Step 4 - Upon validation of the significant defect(s) and determination that the loan does not meet Fannie Mae criteria, a request for repurchase is sent to the Lender ("Demand Rate").

(e) Step 5 - The Lender reviews the loan file and responds with a Concur or Rebuttal ("Agree Rate").

27. Fannie Mae employs an industry standard repurchase demand methodology which is similar to the repurchase demand methodology utilized in my Original Declaration. Additionally, Fannie Mae requires its Sellers or customers to participate in their repurchase process for all loans sold to them, including but not limited to large financial institutions such as Bank of America, Wells Fargo, JP Morgan Chase, Citi, SunTrust, US Bank and other top banks (See the IMF Special Report).

Wells Fargo Repurchase Demand Process

28. I am familiar with the Wells Fargo Repurchase and Rescission Process[13] as a result of my professional experience. The process has the following steps:

(a) Step 1 – Wells Fargo loans are selected for review ("Audit Rate") by an investor.

(b) Step 2 – The investor reviews the file and records for any breach of representations and warranties. If any breaches are identified, the investor issues a repurchase demand to Wells Fargo ("Demand Rate").

[13] Wells Fargo Funding Repurchase and Rescission Process Overview dated October 15, 2010.

(c) Step 3 – Upon receipt a demand, Wells Fargo researches the demand to determine if there was a breach of representation or warranty or non-compliance with a term of the mortgage insurance policy. Wells Fargo either agrees to repurchase the loan or appeals the demand ("Agree Rate").

(d) Wells Fargo thus utilizes an industry standard repurchase process similar to the repurchase demand methodology utilized in my Original Declaration. Wells Fargo originated approximately 33% of all residential mortgages in the United States through the first six months of 2012 according to a Bloomberg article from August 2012.

CLARIFICATIONS AND CORRECTIONS TO ORIGINAL 9019 DECLARATION

29. In my Original Declaration (page 5, item 5(3); page 13, item 32), I stated that I reviewed Frequency Rates from one Trust for each of the representative Shelves. I would like to clarify that I reviewed Frequency Rates from at least one Series by Issue Year, which may consist of multiple Trusts, for each of the representative Shelves.

30. In my Original Declaration (page 14, item 35), I inadvertently stated that the Severity Rate is also known as the Default Rate.

Dated: September 28, 2012

/s/
Frank Sillman

ny-1059784

EXHIBITS

Exhibit A - U.S. Bureau of Labor Statistics Labor Force Statistics from the Current Population Survey for unemployment rates, data extracted on September 26, 2012.

Exhibit B - Financial Accounting Standards Board Financial Accounting Series Accounting Standards Update No. 2010-06, dated January 2010.

Exhibit C - DBRS, Inc.'s RMBS Insight: U.S. Residential Mortgage-Backed Securities Loss Model and Rating Methodology, dated January 2010.

Exhibit D - Fannie Mae's National Underwriting Center Quality Assurance review process, dated 2010.

Exhibit E - Wells Fargo Funding Repurchase and Rescission Process Overview, dated October 15, 2010.

Exhibit A

Databases, Tables & Calculators by Subject

FONT SIZE:

Change Output Options: From: 2002 To: 2012 GO

include graphs

More Formatting Options

Data extracted on: September 26, 2012 (10:53:51 AM)

Labor Force Statistics from the Current Population Survey

Series Id: LNS14000000
Seasonally Adjusted
Series title: (Seas) Unemployment Rate
Labor force status: Unemployment rate
Type of data: Percent or rate
Age: 16 years and over

Download: .xls

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2002	5.7	5.7	5.7	5.9	5.8	5.8	5.8	5.7	5.7	5.7	5.9	6.0	
2003	5.8	5.9	5.9	6.0	6.1	6.3	6.2	6.1	6.1	6.0	5.8	5.7	
2004	5.7	5.6	5.8	5.6	5.6	5.6	5.5	5.4	5.4	5.5	5.4	5.4	
2005	5.3	5.4	5.2	5.2	5.1	5.0	5.0	4.9	5.0	5.0	5.0	4.9	
2006	4.7	4.8	4.7	4.7	4.6	4.6	4.7	4.7	4.5	4.4	4.5	4.4	
2007	4.6	4.5	4.4	4.5	4.4	4.6	4.7	4.6	4.7	4.7	4.7	5.0	
2008	5.0	4.9	5.1	5.0	5.4	5.6	5.8	6.1	6.1	6.5	6.8	7.3	
2009	7.8	8.3	8.7	8.9	9.4	9.5	9.5	9.6	9.8	10.0	9.9	9.9	
2010	9.7	9.8	9.8	9.9	9.6	9.4	9.5	9.6	9.5	9.5	9.8	9.4	
2011	9.1	9.0	8.9	9.0	9.0	9.1	9.1	9.1	9.0	8.9	8.7	8.5	
2012	8.3	8.3	8.2	8.1	8.2	8.2	8.3	8.1					

Exhibit B

FINANCIAL ACCOUNTING SERIES

ACCOUNTING STANDARDS UPDATE

No. 2010-06
January 2010

Fair Value Measurements and Disclosures (Topic 820)

Improving Disclosures about Fair Value Measurements

An Amendment of the *FASB Accounting Standards Codification*™

Financial Accounting Standards Board
of the Financial Accounting Foundation

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Accounting Standards Update

No. 2010-06
January 2010

Fair Value Measurements and Disclosures (Topic 820)

Improving Disclosures about Fair Value Measurements

An Amendment of the *FASB Accounting Standards Codification*™

Financial Accounting Standards Board
of the Financial Accounting Foundation
401 MERRITT 7, PO BOX 5116, NORWALK, CONNECTICUT 06856-5116

Accounting Standards Update 2010-06

Fair Value Measurements and Disclosures (Topic 820)

Improving Disclosures about Fair Value Measurements

January 2010

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Summary

Why Is the FASB Issuing This Accounting Standards Update (Update)?

A number of constituents have recommended that the Board improve disclosure requirements related to Fair Value Measurements and Disclosures—Overall Subtopic (Subtopic 820-10) of the *FASB Accounting Standards Codification*™, originally issued as FASB Statement No. 157, *Fair Value Measurements.* The Board concluded that users will benefit from improved disclosures in this Update and that the benefits of the increased transparency in financial reporting will outweigh the costs of complying with the new requirements.

Who Is Affected by the Amendments in This Update?

All entities that are required to make disclosures about recurring or nonrecurring fair value measurements are affected by the amendments in this Update.

What Are the Main Provisions?

This Update provides amendments to Subtopic 820-10 that require new disclosures as follows:

1. Transfers in and out of Levels 1 and 2. A reporting entity should disclose separately the amounts of significant transfers in and out of Level 1 and Level 2 fair value measurements and describe the reasons for the transfers.
2. Activity in Level 3 fair value measurements. In the reconciliation for fair value measurements using significant unobservable inputs (Level 3), a reporting entity should present separately information about purchases, sales, issuances, and settlements (that is, on a gross basis rather than as one net number).

This Update provides amendments to Subtopic 820-10 that clarify existing disclosures as follows:

1. Level of disaggregation. A reporting entity should provide fair value measurement disclosures for each class of assets and liabilities. A class is often a subset of assets or liabilities within a line item in the statement of financial position. A reporting entity needs to use judgment in determining the appropriate classes of assets and liabilities.
2. Disclosures about inputs and valuation techniques. A reporting entity should provide disclosures about the valuation techniques and inputs

used to measure fair value for both recurring and nonrecurring fair value measurements. Those disclosures are required for fair value measurements that fall in either Level 2 or Level 3.

This Update also includes conforming amendments to the guidance on employers' disclosures about postretirement benefit plan assets (Subtopic 715-20). The conforming amendments to Subtopic 715-20 change the terminology from *major categories* of assets to *classes* of assets and provide a cross reference to the guidance in Subtopic 820-10 on how to determine appropriate classes to present fair value disclosures.

How Do the Main Provisions Differ from Current U.S. Generally Accepted Accounting Principles (GAAP) and Why Are They an Improvement?

The Board has improved the disclosures about fair value measurements on the basis of input received from users of financial statements. The Board concluded that the changes will provide a greater level of disaggregated information and more robust disclosures about valuation techniques and inputs to fair value measurements. Users have stated that separate information about purchases, sales, issuances, and settlements would indicate the reasons for changes in the reporting entity's Level 3 fair value measurements. They also have said that because of the different degrees of subjectivity and reliability of Level 1, Level 2, and Level 3 fair value measurements, information about significant transfers between the three levels and the reasons for such transfers would be useful.

When Will the Amendments Be Effective?

The new disclosures and clarifications of existing disclosures are effective for interim and annual reporting periods beginning after December 15, 2009, except for the disclosures about purchases, sales, issuances, and settlements in the roll forward of activity in Level 3 fair value measurements. Those disclosures are effective for fiscal years beginning after December 15, 2010, and for interim periods within those fiscal years.

How Do the Provisions Compare with International Financial Reporting Standards (IFRS)?

The amendments in this Update improve the comparability of financial reporting internationally because those required disclosures also are required by IFRS. For example, IFRS 7, *Financial Instruments: Disclosures,* as amended in March 2009, requires disclosures similar to those provided in this Update, such as disclosures about transfers between Level 1, Level 2, and Level 3 and the disaggregated activity in the roll forward for Level 3 fair value measurements.

In May 2009, the International Accounting Standards Board published an Exposure Draft, *Fair Value Measurement,* which includes disclosures similar to those in IFRS 7 that would apply to all assets and liabilities measured at fair value after initial recognition, not just to financial instruments.

Amendments to the *FASB Accounting Standards Codification*™

Introduction

1. The Accounting Standards Codification is amended as described in paragraphs 2–14. In some cases, not only are the amended paragraphs shown but also the preceding and following paragraphs are shown to put the change in context. Terms from the Master Glossary are in **bold** type. Added text is underlined and deleted text is ~~struck out~~.

Amendments to Subtopic 820-10

2. Amend paragraphs 820-10-50-1 through 50-2, with a link to transition paragraph 820-10-65-7 as follows:

Fair Value Measurements and Disclosures—Overall

Disclosure

820-10-50-1 The reporting entity shall disclose information that enables users of its financial statements to assess both of the following:

a. For assets and liabilities that are measured at **fair value** on a recurring basis in periods subsequent to initial recognition (for example, trading securities), the valuation techniques and **inputs** used to develop those measurements
b. For recurring fair value measurements using significant **unobservable inputs** (Level 3), the effect of the measurements on earnings (or changes in net assets) for the period.

820-10-50-2 To meet ~~that objective,~~the objectives of the preceding paragraph, the reporting entity shall disclose all of the ~~following~~ information in (a) through (e) below for each interim and annual period separately for each ~~major category~~class of assets and ~~liabilities:~~liabilities. The reporting entity shall determine appropriate classes of assets and liabilities on the basis of guidance in the following paragraph. It shall provide sufficient information to permit reconciliation of the fair value measurement disclosures for the various classes of assets and liabilities to the line items in the statement of financial position.

a. The fair value ~~measurements~~measurement at the reporting ~~date~~date.

b. The level within the fair value hierarchy in which the fair value ~~measurements~~measurement in its~~their~~ entirety ~~fall,~~falls, segregating the fair value ~~measurements~~measurement using any of the following:
   1. Quoted prices in active markets for identical assets or liabilities (Level 1)
   2. Significant other **observable inputs** (Level 2)
   3. Significant unobservable inputs (Level 3).

bb. The amounts of significant transfers between Level 1 and Level 2 of the fair value hierarchy and the reasons for the transfers. Significant transfers into each level shall be disclosed separately from transfers out of each level. For this purpose, significance shall be judged with respect to earnings and total assets or total liabilities or, when changes in fair value are recognized in other comprehensive income, with respect to total equity. A reporting entity shall disclose and consistently follow its policy for determining when transfers between levels are recognized. The policy about the timing of recognizing transfers shall be the same for transfers into the levels as that for transfers out of the levels. Examples of policies for when to recognize the transfers are as follows:
   1. The actual date of the event or change in circumstances that caused the transfer
   2. The beginning of the reporting period
   3. The end of the reporting period.

c. For fair value measurements using significant unobservable inputs (Level 3), a reconciliation of the beginning and ending balances, separately presenting changes during the period attributable to any of the following:
   1. Total gains or losses for the period (realized and unrealized)~~, segregating those~~, separately presenting gains or losses included in earnings (or changes in net ~~assets),~~assets) and gains or losses recognized in other comprehensive income, and a description of where those gains or losses included in earnings (or changes in net assets) are reported in the statement of income (or activities) or in other comprehensive income
   2. Purchases, sales, issuances, and settlements ~~(net)~~(each type disclosed separately)
   3. Transfers in and/or out of Level 3 ~~(for example, transfers due to changes in the observability of significant inputs).~~and the reasons for those transfers. Significant transfers into Level 3 shall be disclosed separately from significant transfers out of Level 3. For this purpose, significance shall be judged with respect to earnings and total assets or total liabilities or, when changes in fair value are recognized in other comprehensive income, with respect to total equity. A reporting entity shall disclose and consistently follow its policy for determining when transfers between levels are recognized. The policy about the timing of recognizing transfers shall be the same for transfers into Level 3 as that for transfers out

of Level 3. Examples of policies for when to recognize the transfers are as follows:

i. The actual date of the event or change in circumstances that caused the transfer

ii. The beginning of the reporting period

iii. The end of the reporting period.

d. The amount of the total gains or losses for the period in (c)(1) included in earnings (or changes in net assets) that are attributable to the change in unrealized gains or losses relating to those assets and liabilities still held at the reporting date and a description of where those unrealized gains or losses are reported in the statement of income (or ~~activities)~~ activities).

e. ~~The inputs and valuation technique(s) used to measure fair value and a discussion of changes in valuation techniques and related inputs, if any, during the period.~~For fair value measurements using significant other observable inputs (Level 2) and significant unobservable inputs (Level 3), a description of the valuation technique (or multiple valuation techniques) used, such as the market approach, income approach, or the cost approach, and the inputs used in determining the fair values of each class of assets or liabilities. If there has been a change in the valuation technique(s) (for example, changing from a market approach to an income approach or the use of an additional valuation technique), the reporting entity shall disclose that change and the reason for making it. For examples of disclosures that a reporting entity may present to comply with the requirement to disclose the inputs used in measuring fair value in this paragraph, see paragraphs 820-10-55-22A through 55-22B.

~~For equity and debt securities *major category* shall be defined as *major security type* as described in paragraph 320-10-50-1B, even if the equity securities or debt securities are not within the scope of Subtopic 320-10 and, for a reporting entity within the scope of Topic 942, as described in paragraph 942-320-50-2.~~

3. Add paragraph 820-10-50-2A, with a link to transition paragraph 820-10-65-7, as follows:

820-10-50-2A For equity and debt securities, class shall be determined on the basis of the nature and risks of the investments in a manner consistent with the guidance in paragraph 320-10-50-1B and, if applicable, shall be the same as the guidance on major security type as described in paragraph 942-320-50-2 even if the equity securities or debt securities are not within the scope of paragraph 320-10-50-1B. For all other assets and liabilities, judgment is needed to determine the appropriate classes of assets and liabilities for which disclosures about fair value measurements should be provided. Fair value measurement disclosures for each class of assets and liabilities often will require greater disaggregation than the reporting entity's line items in the statement of financial position. A reporting entity shall determine the appropriate classes for those disclosures on the basis of the nature and risks of the assets and liabilities and their classification in the fair value hierarchy (that is, Levels 1, 2, and 3). In determining the appropriate classes for fair value measurement disclosures, the reporting entity shall consider the level of disaggregated information required for specific assets and liabilities under other Topics. For example, under Topic 815, disclosures about derivative instruments are presented separately by type of contract such as interest rate contracts, foreign exchange contracts, equity contracts, commodity contracts, and credit contracts. The classification of the asset or liability in the fair value hierarchy also shall affect the level of disaggregation because of the different degrees of uncertainty and subjectivity involved in Level 1, Level 2, and Level 3 measurements. For example, the number of classes may need to be greater for fair value measurements using significant unobservable inputs (that is, Level 3 measurements) to achieve the disclosure objectives because Level 3 measurements have a greater degree of uncertainty and subjectivity.

4. Amend paragraph 820-10-50-3, with a link to transition paragraph 820-10-65-7, as follows:

820-10-50-3 For derivative assets and liabilities, the reporting entity shall present both of the following:

a. The fair value disclosures required by paragraph 820-10-50-2(a) through (bb) on a gross basis (which is consistent with the requirement of paragraph 815-10-50-4B(a))
b. The~~the~~ reconciliation disclosure required by ~~(c) in the preceding~~ paragraph 820-10-50-2(c) through (d) ~~may be presented net.~~on either a gross or a net basis.

820-10-50-4 Example 8, Cases A and B (see paragraphs 820-10-55-60 through 55-63) illustrate disclosures about recurring measurements.

5. Amend paragraph 820-10-50-5, with a link to transition paragraph 820-10-65-7, as follows:

820-10-50-5 For assets and liabilities that are measured at fair value on a nonrecurring basis in periods after~~subsequent to~~ initial recognition (for example, impaired assets), the reporting entity shall disclose information that enables users of its financial statements to assess the valuation techniques and inputs used to develop those measurements. To meet that objective, the reporting entity shall disclose all of the following information for each interim and annual period separately for each ~~major category~~class of assets and ~~liabilities:~~liabilities. The reporting entity shall determine classes of assets and liabilities on the basis of the guidance in paragraph 820-10-50-2A.

a. The fair value ~~measurements~~measurement recorded during the period and the reasons for the ~~measurements~~measurement

b. The level within the fair value hierarchy in which the fair value ~~measurements~~measurement in ~~their~~its entirety ~~fall,~~falls, segregating the fair value ~~measurements~~measurement using any of the following:
   1. Quoted prices in active markets for identical assets or liabilities (Level 1)
   2. Significant other observable inputs (Level 2)
   3. Significant unobservable inputs (Level 3).
c. Subparagraph superseded by Accounting Standards Update 2010-06.~~For fair value measurements using significant unobservable inputs (Level 3), a description of the inputs and the information used to develop the inputs~~
d. For fair value measurements using significant other observable inputs (Level 2) and significant unobservable inputs (Level 3), the disclosure required by paragraph 820-10-50-2(e).~~The inputs and valuation technique(s) used to measure fair value and a discussion of changes, if any, in the valuation technique(s) and related inputs used to measure similar assets and/or liabilities in prior periods.~~

~~For equity and debt securities *major category* shall be defined as *major security type* as described in paragraph 320-10-50-1B, even if the equity securities or debt securities are not within the scope of Subtopic 320-10 and, for reporting entities within the scope of Topic 942, paragraph 942-320-50-2.~~

820-10-50-6 Example 8, Case C (see paragraph 820-10-55-64) illustrates disclosures about nonrecurring measurements.

6. Amend paragraph 820-10-50-6A, with a link to transition paragraph 820-10-65-7, as follows:

820-10-50-6A For investments that are within the scope of paragraphs 820-10-15-4 through 15-5 (regardless of whether the practical expedient in paragraph 820-10-35-59 has been applied) and measured at fair value on a recurring or nonrecurring basis during the period, the reporting entity shall disclose information that enables users of its financial statements to understand the nature and risks of the investments and whether the investments are probable of being sold at amounts different from net asset value per share (or its equivalent, such as member units or an ownership interest in partners' capital to which a proportionate share of net assets is attributed). To meet that objective, to the extent applicable, the reporting entity shall disclose all of the following information for each interim and annual period separately for each class~~major category~~ of investment (class~~major category~~ of investment shall be determined on the basis of the nature and risks of the investments in a manner consistent with the guidance for major security types in paragraph 320-10-50-1B):

a. The fair value (as determined by applying paragraphs 820-10-35-59 through 35-62) of the investments in the class~~major category~~, and a description of the significant investment strategies of the investee(s) in the class~~major category~~.

b. For each class~~major category~~ of investment that includes investments that can never be redeemed with the investees, but the reporting entity receives distributions through the liquidation of the underlying assets of the investees, the reporting entity's estimate of the period of time over which the underlying assets are expected to be liquidated by the investees.
c. The amount of the reporting entity's unfunded commitments related to investments in the class~~major category~~.
d. A general description of the terms and conditions upon which the investor may redeem investments in the class~~major category~~ (for example, quarterly redemption with 60 days' notice).
e. The circumstances in which an otherwise redeemable investment in the class~~major category~~ (or a portion thereof) might not be redeemable (for example, investments subject to a lockup or gate). Also, for those otherwise redeemable investments that are restricted from redemption as of the reporting entity's measurement date, the reporting entity shall disclose its estimate of when the restriction from redemption might lapse. If an estimate cannot be made, the reporting entity shall disclose that fact and how long the restriction has been in effect.
f. Any other significant restriction on the ability to sell investments in the class~~major category~~ at the measurement date.
g. If a reporting entity determines that it is probable that it will sell an investment(s) for an amount different from net asset value per share (or its equivalent) as described in paragraph 820-10-35-62, the reporting entity shall disclose the total fair value of all investments that meet the criteria in paragraph 820-10-35-62 and any remaining actions required to complete the sale.
h. If a group of investments would otherwise meet the criteria in paragraph 820-10-35-62 but the individual investments to be sold have not been identified (for example, if a reporting entity decides to sell 20 percent of its investments in private equity funds but the individual investments to be sold have not been identified), so the investments continue to qualify for the practical expedient in paragraph 820-10-35-59, the reporting entity shall disclose its plans to sell and any remaining actions required to complete the sale(s).

7. Add paragraphs 820-10-55-22A through 55-22B and their related heading, with a link to transition paragraph 820-10-65-7, as follows:

Implementation Guidance and Illustrations

> > > Disclosures—Valuation Techniques and Inputs

820-10-55-22A Examples of disclosures that the reporting entity may present to comply with the input disclosure requirement of paragraph 820-10-50-2(e) include the following:

a. Quantitative information about the inputs, for example, for certain debt securities or derivatives, information such as, but not limited to, prepayment rates, rates of estimated credit losses, interest rates (for example, LIBOR swap rate) or discount rates, and volatilities.
b. The nature of the item being measured at fair value, including the characteristics of the item being measured that are considered in the determination of relevant inputs. For example, for residential mortgage-backed securities, a reporting entity may conclude that meeting the objective of this disclosure requirement requires disclosure of items such as the following:
    1. The types of underlying loans (for example, subprime or home equity lines of credit)
    2. Collateral
    3. Guarantees or other credit enhancements
    4. Seniority level of the tranches of securities
    5. The year of issuance
    6. The weighted-average coupon rate of the underlying loans and the securities
    7. The weighted-average maturity of the underlying loans and the securities
    8. The geographical concentration of the underlying loans
    9. Information about the credit ratings of the securities.
c. How third-party information such as broker quotes, pricing services, net asset values, and relevant market data was considered in measuring fair value.

820-10-55-22B For example, with respect to its investment in a class of residential mortgage-backed securities, a reporting entity may disclose the following:

As of December 31, 20X1, the fair value of the entity's investments in available-for-sale Level 3 residential mortgage-backed securities was $XXX million. These securities are senior tranches in a securitization trust and have a weighted-average coupon rate of XX percent and a weighted-average maturity of XX years. The underlying loans for these securities are residential subprime mortgages that originated in California in 2006. The underlying loans have a weighted-average coupon rate of XX percent and a weighted-average maturity of XX years. These securities are currently rated below investment grade. To estimate their fair value, the entity used an industry standard valuation model, which is based on an income approach. The significant inputs for the valuation model include the following weighted averages:

a. Yield: XX percent
b. Probability of default: XX percent constant default rate
c. Loss severity: XX percent
d. Prepayment: XX percent constant prepayment rate.

8. Amend paragraphs 820-10-55-61 through 55-64A, with a link to transition paragraph 820-10-65-7, as follows:

[Note: For ease of readability, the new tables have not been underlined. The tables in paragraphs 820-10-55-64 and 820-10-55-64A are not new; they are included for context.]

> > > Case A: Disclosure—Assets Measured at Fair Value on a Recurring Basis

820-10-55-61 For assets and liabilities measured at fair value on a recurring basis during the period, this Subtopic requires quantitative disclosures about the fair value measurements separately for each ~~major category~~class of assets and liabilities (see paragraph 820-10-50-2(a) through (b)). For assets, that information might be presented as follows.

~~($ in 000s)~~

		~~Fair Value Measurements at Reporting Date Using~~		
~~Description~~	~~12/31/XX~~	~~Quoted Prices in Active Markets for Identical Assets (Level 1)~~	~~Significant Other Observable Inputs (Level 2)~~	~~Significant Unobservable Inputs (Level 3)~~
~~Trading securities:~~				
~~Equity securities-real estate~~	~~$ 115~~	~~$ 105~~	~~$ 10~~	
~~Available-for-sale securities:~~				
~~Residential mortgage backed securities~~	~~75~~			~~$ 75~~
~~Derivatives~~	~~60~~	~~25~~	~~15~~	~~20~~
~~Venture capital investments~~	~~10~~			~~10~~
~~Total~~	~~$ 260~~	~~$ 130~~	~~$ 25~~	~~$ 105~~

~~(Note: For liabilities, a similar table should be presented.)~~

($ in millions)		Fair Value at Reporting Date Using		
	12/31/XX	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Description				
Trading securities				
Equity securities—real estate industry	$ 93	$ 70	$ 23	
Equity securities—oil and gas industry	45	45		
Equity securities—other	15	15		
Total trading securities	$ 153	$ 130	$ 23	
Available-for-sale debt securities				
Residential-mortgage-backed securities	$ 149		$ 24	$ 125
Commercial-mortgage-backed securities	50			50
Collateralized debt obligations	35			35
U.S. Treasury securities	85	$ 85		
Corporate bonds	93	9	84	
Total available-for-sale debt securities	$ 412	$ 94	$ 108	$ 210
Available-for-sale equity securities				
Financial services industry	$ 150	$ 150		
Healthcare industry	110	110		
Other	15	15		
Total available-for-sale equity securities	$ 275	$ 275		
Total available-for-sale securities	$ 687	$ 369	$ 108	$ 210
Hedge fund investments				
Equity long/short	$ 55	$ 55		
Global opportunities	35	35		
Distressed debt	90			$ 90
Total hedge fund investments	$ 180	$ 90		$ 90
Private equity investments[(a)]	$ 25			$ 25
Venture capital investments[(a)]	10			10
Derivatives				
Interest rate contracts	57		$ 57	
Foreign exchange contracts	43		43	
Credit contracts	38			38
Commodity futures contracts	78	$ 78		
Commodity forward contracts	20		20	
Total derivatives	$ 236	$ 78	$ 120	$ 38
Total	$ 1,291	$ 667	$ 251	$ 373

(a) Based on its analysis of the nature and risks of these investments, the reporting entity has determined that presenting them as a single class is appropriate.

(Note: For liabilities, a similar table should be presented.)

Paragraph 820-10-50-2(bb) requires that the reporting entity also disclose any significant transfers to or from Levels 1 and 2 and the reasons for those transfers. Transfers to or from Level 3 are disclosed in the table illustrated in Case B (see paragraphs 820-10-55-62 through 55-63).

> > > Case B: Disclosure—Assets Measured at Fair Value on a Recurring Basis Using Significant Unobservable Inputs (Level 3)

820-10-55-62 For assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3) during the period, this Subtopic requires a reconciliation of the beginning and ending balances, separately for each <u>class</u>~~major category~~ of assets and liabilities, except for derivative assets and liabilities, which may be presented net (see paragraph 820-10-50-2(c) through (d)). For assets, the reconciliation might be presented as follows.

~~($ in 000s)~~		~~Fair Value Measurements Using Significant Unobservable Inputs (Level 3)~~		
	~~Residential Mortgage Backed Securities~~	~~Derivatives~~	~~Venture Capital Investments~~	~~Total~~
~~Beginning balance~~	~~$ 80~~	~~$ 14~~	~~$ 11~~	~~$ 105~~
~~Total gains or losses (realized/unrealized)~~				
~~Included in earnings (or changes in net assets)~~		~~11~~	~~(3)~~	~~8~~
~~Included in other comprehensive income~~	~~(5)~~	~~4~~		~~(1)~~
~~Purchases, issuances, and settlements~~		~~(7)~~	~~2~~	~~(5)~~
~~Transfers in and/or out of Level 3~~	~~-~~	~~(2)~~	~~-~~	~~(2)~~
~~Ending balance~~	~~$ 75~~	~~$ 20~~	~~$ 10~~	~~$ 105~~
~~The amount of total gains or losses for the period included in earnings (or changes in net assets) attributable to the change in unrealized gains or losses relating to assets still held at the reporting date~~	~~$ -~~	~~$ 7~~	~~$ 2~~	~~$ 9~~

~~(Note: For liabilities, a similar table should be presented.)~~

Roll forward
($ in millions)

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)							
	Available-for-Sale Debt Securities			Other Fund Investments				
	Residential Mortgage-Backed Securities	Commercial Mortgage-Backed Securities	Collateralized Debt Obligations	Hedge Fund Distressed Debt	Private Equity	Venture Capital	Derivatives Credit Contracts	Total
Beginning balance	$ 100	$ 39	$ 25	$ 145	$ 20	$ 11	$ 30	$ 370
Transfers into Level 3	60 [a] [b]							60
Transfers out of Level 3								
Total gains or losses								
Included in earnings (or changes in net assets)	(8)			7	5	(3)	5	6
Included in other comprehensive income	(15)	(5)	(7)				(5)	(32)
Purchases, issuances, sales, and settlements								
Purchases		16	17			2	18	53
Issuances								
Sales	(12)			(62)				(74)
Settlements							(10)	(10)
Ending balance	$ 125	$ 50	$ 35	$ 90	$ 25	$ 10	$ 38	$ 373
The amount of total gains or losses for the period included in earnings (or changes in net assets) attributable to the change in unrealized gains or losses relating to assets still held at the reporting date				$ (5)	$ 5	$ (3)	$ 2	$ (1)

(a) Transferred from Level 2 to Level 3 because of lack of observable market data due to decrease in market activity for these securities.

(b) The company's policy is to recognize transfers in and transfers out as of the actual date of the event or change in circumstances that caused the transfer.

(Note: For liabilities, a similar table should be presented.)

820-10-55-63 Gains and losses (realized and unrealized) included in earnings (or changes in net assets) for the period (above) are reported in trading revenues and in other revenues as follows.

	Trading Revenues	Other Revenues
Total gains or losses included in earnings (or changes in net assets) for the period (as shown in the table in the preceding paragraph)	$ ~~11~~ 5	$ ~~(3)~~ 1
Change in unrealized gains or losses relating to assets still held at reporting date	$ ~~7~~ 2	$ ~~2~~ (3)

> > > Case C: Disclosure—Assets Measured at Fair Value on a Nonrecurring Basis

820-10-55-64 For each ~~major category~~class of assets and liabilities measured at fair value on a nonrecurring basis during the period, this Subtopic requires disclosures about the fair value measurements (see paragraph 820-10-50-5(a) through (b)). That information might be presented as follows.

($ in millions)

Description	Year Ended 12/31/XX	Fair Value Measurements Using: Quoted Prices in Active Markets for Identical Assets (Level 1)	Fair Value Measurements Using: Significant Other Observable Inputs (Level 2)	Fair Value Measurements Using: Significant Unobservable Inputs (Level 3)	Total Gains (Losses)
Long-lived assets held and used	$ 75		$ 75		$ (25)
Goodwill	30			$ 30	(35)
Long-lived assets held for sale	26		26		(15)
					$ (75)

In accordance with the provisions of the Impairment or Disposal of Long-Lived Assets Subsections of FASB Codification Subtopic 360-10, long-lived assets held and used with a carrying amount of $100 million were written down to their fair value of $75 million, resulting in an impairment charge of $25 million, which was included in earnings for the period.

In accordance with the provisions of FASB Codification Topic 350, Intangibles—Goodwill and Other, goodwill with a carrying amount of $65 million was written down to its implied fair value of $30 million, resulting in an impairment charge of $35 million, which was included in earnings for the period.

In accordance with the provisions of the Impairment or Disposal of Long-Lived Assets Subsections of FASB Codification Subtopic 360-10, long-lived assets held for sale with a carrying amount of $35 million were written down to their fair value of $26 million, less cost to sell of $6 million (or $20 million), resulting in a loss of $15 million, which was included in earnings for the period.

> > > Case D: Disclosure—Fair Value Measurements of Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)

820-10-55-64A For investments that are within the scope of paragraphs 820-10-15-4 through 15-5 measured at fair value on a recurring or nonrecurring basis during the period, in addition to the disclosures required in paragraphs 820-10-50-1 through 50-2 and 820-10-50-5, this Subtopic requires disclosure of information that enables users to understand the nature and risk of the investments by ~~major category~~class and whether the investments are probable of being sold at amounts different from net asset value per share (or its equivalent, such as member units or an ownership interest in partners' capital to which a proportionate share of net assets is attributed) (see paragraph 820-10-50-6A). That information may be presented as follows. (The ~~major categories~~classes presented below are provided as examples only and are not intended to be treated as a template. The ~~major categories~~classes disclosed should be tailored to the nature and risks of the reporting entity's investments.)

	Fair Value (in millions)	Unfundend Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Equity long/short hedge funds (a)	$ 55		quarterly	30–60 days
Event driven hedge funds (b)	45		quarterly, annually	30–60 days
Global opportunities hedge funds (c)	35		quarterly	30–45 days
Multi-strategy hedge funds (d)	40		quarterly	30–60 days
Real estate funds (e)	47	$ 20		
Private equity funds—international (f)	43	15		
Total	$ 265	$ 35		

a. This ~~category~~class includes investments in hedge funds that invest both long and short primarily in U.S. common stocks. Management of the hedge funds has the ability to shift investments from value to growth strategies, from small to large capitalization stocks, and from a net long position to a net short position. The fair values of the investments in this ~~category~~class have been estimated using the net asset value per share of the investments. Investments representing approximately 22 percent of the value of the investments in this ~~category~~class cannot be redeemed because the investments include restrictions that do not allow for redemption in the first 12 to 18 months after acquisition. The remaining restriction period for these investments ranged from three to seven months at December 31, 20X3.

b. This ~~category~~class includes investments in hedge funds that invest in approximately 60 percent equities and 40 percent bonds to profit from economic, political, and government driven events. A majority of the investments are targeted at economic policy decisions. The fair values of the investments in this ~~category~~class have been estimated using the net asset value per share of the investments.

c. This ~~category~~class includes investments in hedge funds that hold approximately 80 percent of the funds' investments in non-U.S. common stocks in the healthcare, energy, information technology, utilities, and telecommunications sectors and approximately 20 percent of the funds' investments in diversified currencies. The fair values of the investments in this ~~category~~class have been estimated using the net asset value per share of the investments. For one investment, valued at $8.75 million, a gate has been imposed by the hedge fund manager and no redemptions are currently permitted. This redemption restriction has been in place for six months and the time at which the redemption restriction might lapse cannot be estimated.

d. This ~~category~~class invests in hedge funds that pursue multiple strategies to diversify risks and reduce volatility. The hedge funds' composite portfolio for this ~~category~~class includes investments in approximately 50 percent U.S. common stocks, 30 percent global real estate projects, and 20 percent arbitrage investments. The fair values of the investments in this ~~category~~class have been estimated using the net asset value per share of the investments. Investments representing approximately 15 percent of the value of the investments in this ~~category~~class cannot be redeemed because the investments include restrictions that do not allow for redemption in the first year after acquisition. The remaining restriction period for these investments ranged from four to six months at December 31, 20X3.

e. This ~~category~~class includes several real estate funds that invest primarily in U.S. commercial real estate. The fair values of the investments in this ~~category~~class have been estimated using the net asset value of the Company's ownership interest in partners' capital. These investments can never be redeemed with the funds. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is estimated that the underlying assets of the fund will be liquidated over the next 7 to 10 years. Twenty percent of the total investment in this ~~category~~class is planned to be sold. However, the individual investments that will be sold have not yet been determined. Because it is not probable that any individual investment will be sold, the fair value of each individual investment has been estimated using the net asset value of the Company's ownership interest in partners' capital. Once it has been determined which investments will be sold and whether those investments will be sold individually or in a group, the investments will be sold in an action process. The investee fund's management must approve of the buyer before the sale of the investments can be completed.

f. This ~~category~~class includes several private equity funds that invest primarily in foreign technology companies. These investments can never be redeemed with the funds. Instead, the nature of the investments in this ~~category~~class is that distributions are received through the liquidation of the underlying assets of the fund. If these investments were held, it is estimated that the underlying assets of the fund would be liquidated over 5 to 8 years. However, as of December 31, 20X3, it is probable that all of the investments in this ~~category~~class will be sold at an amount different from the net asset value of the Company's ownership interest in partners' capital. Therefore, the fair values of the investments in this class~~category~~ have been estimated using recent observable transaction information for similar investments and non-binding bids received from potential buyers of the investments. As of December 31, 20X3, a buyer (or buyers) for these investments has not yet been identified. Once a buyer has been identified, the investee fund's management must approve of the buyer before the sale of the investments can be completed.

9. Add paragraph 820-10-65-7 and its related heading as follows:

> Transition Related to Accounting Standards Update No. 2010-06, *Fair Value Measurements and Disclosures (Topic 820): Improving Disclosures about Fair Value Measurements*

820-10-65-7 The following represents the transition and effective date information related to Accounting Standards Update No. 2010-06, *Fair Value Measurements and Disclosures (Topic 820): Improving Disclosures about Fair Value Measurements:*

a. The pending content that links to this paragraph shall be effective for interim and annual reporting periods beginning after December 15, 2009, except for the separate disclosures about purchases, sales, issuances, and settlements relating to Level 3 measurements (see paragraph 820-10-50-2(c)(2)), which shall be effective for fiscal years beginning after December 15, 2010, and for interim periods within those fiscal years.
b. In the period of initial adoption, the reporting entity shall not be required to provide the disclosures otherwise required by the pending content that links to this paragraph for any previous periods presented for comparative purposes.
c. In periods after initial adoption, comparative disclosures of the pending content that links to this paragraph shall be required only for periods ending after initial adoption.
d. Early adoption of the pending content that links to this paragraph is permitted.

Amendments to Subtopic 715-20

10. Amend paragraph 715-20-50-1, with a link to transition paragraph 820-10-65-7, as follows:

Compensation—Retirement Benefits—Defined Benefit Plans—General

Disclosure

715-20-50-1 An employer that sponsors one or more defined benefit pension plans or one or more defined benefit other postretirement plans shall provide the following information, separately for pension plans and other postretirement benefit plans. Amounts related to the employer's results of operations shall be disclosed for each period for which a statement of income is presented. Amounts related to the employer's statement of financial position shall be disclosed as of the date of each statement of financial position presented. All of the following shall be disclosed:

a. A reconciliation of beginning and ending balances of the benefit obligation showing separately, if applicable, the effects during the period attributable to each of the following:
   1. Service cost
   2. Interest cost
   3. Contributions by plan participants
   4. Actuarial gains and losses
   5. Foreign currency exchange rate changes (The effects of foreign currency exchange rate changes that are to be disclosed are those applicable to plans of a foreign operation whose functional currency is not the reporting currency pursuant to Section 830-10-45.)
   6. Benefits paid
   7. Plan amendments
   8. Business combinations
   9. Divestitures
   10. Curtailments, settlements, and special and contractual termination benefits.

For defined benefit pension plans, the benefit obligation is the projected benefit obligation. For defined benefit other postretirement plans, the benefit obligation is the accumulated postretirement benefit obligation.

b. A reconciliation of beginning and ending balances of the fair value of plan assets showing separately, if applicable, the effects during the period attributable to each of the following:
   1. Actual return on plan assets
   2. Foreign currency exchange rate changes (see ~~[a][5])~~(a)(5))
   3. Contributions by the employer
   4. Contributions by plan participants
   5. Benefits paid
   6. Business combinations
   7. Divestitures
   8. Settlements.

c. The funded status of the plans and the amounts recognized in the statement of financial position, showing separately the assets and current and noncurrent liabilities recognized.
d. The objectives of the disclosures about postretirement benefit plan assets are to provide users of financial statements with an understanding of:
   1. How investment allocation decisions are made, including the factors that are pertinent to an understanding of investment policies and strategies
   2. The ~~major categories~~classes of plan assets

3. The inputs and valuation techniques used to measure the fair value of plan assets
4. The effect of fair value measurements using significant unobservable inputs (Level 3) on changes in plan assets for the period
5. Significant concentrations of risk within plan assets.

An employer shall consider those overall objectives in providing the following information about plan assets:

i. A narrative description of investment policies and strategies, including target allocation percentages or range of percentages considering the ~~major categories~~classes of plan assets disclosed pursuant to (ii) below, as of the latest statement of financial position presented (on a weighted-average basis for employers with more than one plan), and other factors that are pertinent to an understanding of those policies and strategies such as investment goals, risk management practices, permitted and prohibited investments including the use of derivatives, diversification, and the relationship between plan assets and benefit obligations. For investment funds disclosed as ~~major categories~~classes as described in (ii) below, a description of the significant investment strategies of those funds shall be provided.
ii. The fair value of each ~~major category~~class of plan assets as of each date for which a statement of financial position is presented. Asset ~~categories~~classes shall be based on the nature and risks of assets in an employer's plan(s). For additional guidance on determining appropriate classes of plan assets, see paragraph 820-10-50-2A. Examples of ~~major categories~~classes of assets could include, but are not limited to, the following: cash and cash equivalents; equity securities (segregated by industry type, company size, or investment objective); debt securities issued by national, state, and local governments; corporate debt securities; asset-backed securities; structured debt; derivatives on a gross basis (segregated by type of underlying risk in the contract, for example, interest rate contracts, foreign exchange contracts, equity contracts, commodity contracts, credit contracts, and other contracts); investment funds (segregated by type of fund); and real estate. Those examples are not meant to be all inclusive. An employer should consider the overall objectives in ~~paragraphs~~paragraph 715-20-50-1(d)(1) through ~~50-1(d)(5)~~(5) in determining whether additional ~~categories~~classes of plan assets or further disaggregation of ~~major categories~~classes should be disclosed.

iii. A narrative description of the basis used to determine the overall expected long-term rate-of-return-on-assets assumption, such as the general approach used, the extent to which the overall rate-of-return-on-assets assumption was based on historical returns, the extent to which adjustments were made to those historical returns in order to reflect expectations of future returns, and how those adjustments were determined. The description should consider the ~~major categories~~classes of assets as described in (ii) above, as appropriate.

iv. Information that enables users of financial statements to assess the inputs and valuation techniques used to develop fair value measurements of plan assets at the reporting date. For fair value measurements using significant observable inputs, an employer shall disclose the effect of the measurements on changes in plan assets for the period. To meet those objectives, the employer shall disclose the following information for each ~~major category~~class of plan assets disclosed pursuant to (ii) above for each annual period:

01. The level within the fair value hierarchy in which the fair value measurements in their entirety fall, segregating fair value measurements using quoted prices in active markets for identical assets or liabilities (Level 1), significant other observable inputs (Level 2), and significant unobservable inputs (Level 3). The guidance in paragraph 820-10-35-37 is applicable.

02. For fair value measurements of plan assets using significant unobservable inputs (Level 3), a reconciliation of the beginning and ending balances, separately presenting changes during the period attributable to the following:

A. Actual Return on Plan Assets (Component of **Net Periodic Postretirement Benefit Cost**) or Actual Return on Plan Assets (Component of **Net Periodic Pension Cost**), separately identifying the amount related to assets still held at the reporting date and the amount related to assets sold during the period

B. Purchases, sales, and **settlements**, net

C. Transfers in and/or out of Level 3 (for example, transfers due to changes in the observability of significant inputs)

03. Information about the valuation technique(s) and inputs used to measure fair value and a discussion of changes in valuation techniques and inputs, if any, during the period.

e. For defined benefit pension plans, the accumulated benefit obligation.

f. The benefits (as of the date of the latest statement of financial position presented) expected to be paid in each of the next five fiscal years, and in the aggregate for the five fiscal years thereafter. The expected benefits shall be estimated based on the same assumptions used to measure the entity's benefit obligation at the end of the year and shall include benefits attributable to estimated future employee service.

g. The employer's best estimate, as soon as it can reasonably be determined, of contributions expected to be paid to the plan during the next fiscal year beginning after the date of the latest statement of financial position presented. Estimated contributions may be presented in the aggregate combining all of the following:
   1. Contributions required by funding regulations or laws
   2. Discretionary contributions
   3. Noncash contributions.

h. The amount of net benefit cost recognized, showing separately all of the following:
   1. The service cost component
   2. The interest cost component
   3. The expected return on plan assets for the period
   4. The gain or loss component
   5. The prior service cost or credit component
   6. The transition asset or obligation component
   7. The gain or loss recognized due to settlements or curtailments.

i. Separately the net gain or loss and net prior service cost or credit recognized in other comprehensive income for the period pursuant to paragraphs 715-30-35-11, 715-30-35-21, 715-60-35-16, and 715-60-35-25, and reclassification adjustments of other comprehensive income for the period, as those amounts, including amortization of the net transition asset or obligation, are recognized as components of net periodic benefit cost.

j. The amounts in accumulated other comprehensive income that have not yet been recognized as components of net periodic benefit cost, showing separately the net gain or loss, net prior service cost or credit, and net transition asset or obligation.

k. On a weighted-average basis, all of the following assumptions used in the accounting for the plans, specifying in a tabular format, the assumptions used to determine the benefit obligation and the assumptions used to determine net benefit cost:
   1. Assumed discount rates (~~refer to~~see paragraph 715-30-35-45 for a discussion of representationally faithful disclosure)
   2. Rates of compensation increase (for pay-related plans)
   3. Expected long-term rates of return on plan assets.

l. The assumed health care cost trend rate(s) for the next year used to measure the expected cost of benefits covered by the plan (gross eligible charges), and a general description of the direction and pattern of change in the assumed trend rates thereafter, together with the ultimate trend rate(s) and when that rate is expected to be achieved.

m. The effect of a one-percentage-point increase and the effect of a one-percentage-point decrease in the assumed health care cost trend rates on the aggregate of the service and interest cost components of net periodic postretirement health care benefit costs and the accumulated postretirement benefit obligation for health care benefits. Measuring the sensitivity of the accumulated postretirement benefit obligation and the combined service and interest cost components to a change in the assumed health care cost trend rates requires remeasuring the accumulated postretirement benefit obligation as of the beginning and end of the year. (For purposes of this disclosure, all other assumptions shall be held constant, and the effects shall be measured based on the substantive plan that is the basis for the accounting.)
n. If applicable, the amounts and types of securities of the employer and **related parties** included in plan assets, the approximate amount of future annual benefits of plan participants covered by insurance contracts, including annuity contracts issued by the employer or related parties, and any significant transactions between the employer or related parties and the plan during the period.
o. If applicable, any alternative method used to amortize prior service amounts or net gains and losses pursuant to paragraphs 715-30-35-13 and 715-30-35-25 or 715-60-35-18 and 715-60-35-31.
p. If applicable, any substantive commitment, such as past practice or a history of regular benefit increases, used as the basis for accounting for the benefit obligation.
q. If applicable, the cost of providing special or contractual termination benefits recognized during the period and a description of the nature of the event.
r. An explanation of any significant change in the benefit obligation or plan assets not otherwise apparent in the other disclosures required by this Subtopic.
s. The amounts in accumulated other comprehensive income expected to be recognized as components of net periodic benefit cost over the fiscal year that follows the most recent annual statement of financial position presented, showing separately the net gain or loss, net prior service cost or credit, and net transition asset or obligation.
t. The amount and timing of any plan assets expected to be returned to the employer during the 12-month period, or operating cycle if longer, that follows the most recent annual statement of financial position presented.
u. Subparagraph not used.

11. Amend paragraph 715-20-50-5, with a link to transition paragraph 820-10-65-7, as follows:

715-20-50-5 A **nonpublic entity** is not required to disclose the information required by paragraphs 715-20-50-1(a) through ~~50-1(c),~~(c), 715-20-50-1(h), 715-20-50-1(m), and 715-20-50-1(o) through ~~50-1(r).~~(r). A nonpublic entity that sponsors one or more defined benefit pension plans or one or more other defined benefit postretirement plans shall provide all of the following information, separately for pension plans and other postretirement benefit plans. Amounts related to the employer's results of operations shall be disclosed for each period for which a statement of income is presented. Amounts related to the employer's statement of financial position shall be disclosed as of the date of each statement of financial position presented.

a. The benefit obligation, fair value of plan assets, and funded status of the plan.
b. Employer contributions, participant contributions, and benefits paid.
c. The objectives of the disclosures about postretirement benefit plan assets are to provide users of financial statements with an understanding of:
    1. How investment allocation decisions are made, including the factors that are pertinent to an understanding of investment policies and strategies
    2. The ~~major categories~~classes of plan assets
    3. The inputs and valuation techniques used to measure the fair value of plan assets
    4. The effect of fair value measurements using significant unobservable inputs (Level 3) on changes in plan assets for the period
    5. Significant concentrations of risk within plan assets.

    An employer shall consider those overall objectives in providing the following information about plan assets:
    i. A narrative description of investment policies and strategies, including target allocation percentages or range of percentages considering the ~~major categories~~classes of plan assets disclosed pursuant to (ii) below, as of the latest statement of financial position presented (on a weighted-average basis for employers with more than one plan), and other factors that are pertinent to an understanding of those policies and strategies such as investment goals, risk management practices, permitted and prohibited investments including the use of derivatives, diversification, and the relationship between plan assets and benefit obligations. For investment funds disclosed as ~~major categories~~classes as described in (ii) below, a description of the significant investment strategies of those funds shall be provided.
    ii. The fair value of each ~~major category~~class of plan assets as of each date for which a statement of financial position is

presented. Asset ~~categories~~classes shall be based on the nature and risks of assets in an employer's plan(s). Examples of ~~major categories~~classes include, but are not limited to, the following: cash and cash equivalents; equity securities (segregated by industry type, company size, or investment objective); debt securities issued by national, state, and local governments; corporate debt securities; asset-backed securities; structured debt; derivatives on a gross basis (segregated by type of underlying risk in the contract, for example, interest rate contracts, foreign exchange contracts, equity contracts, commodity contracts, credit contracts, and other contracts); investment funds (segregated by type of fund); and real estate. Those examples are not meant to be all inclusive. An employer should consider the overall objectives in ~~paragraphs~~paragraph 715-20-50-5(c)(1) through ~~50-5(c)(5)~~(5) in determining whether additional ~~categories~~classes of plan assets or further disaggregation of ~~major categories~~classes should be disclosed.

iii. A narrative description of the basis used to determine the overall expected long-term rate-of-return-on-assets assumption, such as the general approach used, the extent to which the overall rate-of-return-on-assets assumption was based on historical returns, the extent to which adjustments were made to those historical returns in order to reflect expectations of future returns, and how those adjustments were determined. The description should consider the ~~major categories~~classes of assets described in (ii) above, as appropriate.

iv. Information that enables users of financial statements to assess the inputs and valuation techniques used to develop fair value measurements of plan assets at the reporting date. For fair value measurements using significant unobservable inputs, an employer shall disclose the effect of the measurements on changes in plan assets for the period. To meet those objectives, the employer shall disclose the following information for each ~~major category~~class of plan assets disclosed pursuant to (ii) above for each annual period:

01. The level within the fair value hierarchy in which the fair value measurements in their entirety fall, segregating fair value measurements using quoted prices in active markets for identical assets or liabilities (Level 1), significant other observable inputs (Level 2), and significant unobservable inputs (Level 3). The guidance in paragraph 820-10-35-37 is applicable.

02. For fair value measurements of plan assets using significant unobservable inputs (Level 3), a reconciliation

of the beginning and ending balances, separately presenting changes during the period attributable to the following:

A. Actual Return on Plan Assets (Component of Net Periodic Postretirement Benefit Cost) or Actual Return on Plan Assets (Component of Net Periodic Pension Cost), separately identifying the amount related to assets still held at the reporting date and the amount related to assets sold during the period
B. Purchases, sales, and settlements, net
C. Transfers in and/or out of Level 3 (for example, transfers due to changes in the observability of significant inputs)

03. Information about the valuation technique(s) and inputs used to measure fair value and a discussion of changes in valuation techniques and inputs, if any, during the period.

d. For defined benefit pension plans, the accumulated benefit obligation.
e. The benefits (as of the date of the latest statement of financial position presented) expected to be paid in each of the next five fiscal years, and in the aggregate for the five fiscal years thereafter. The expected benefits shall be estimated based on the same assumptions used to measure the entity's benefit obligation at the end of the year and shall include benefits attributable to estimated future employee service.
f. The employer's best estimate, as soon as it can reasonably be determined, of contributions expected to be paid to the plan during the next fiscal year beginning after the date of the latest statement of financial position presented. Estimated contributions may be presented in the aggregate combining any of the following:
   1. Contributions required by funding regulations or laws
   2. Discretionary contributions
   3. Noncash contributions.
g. The amounts recognized in the statements of financial position, showing separately the postretirement benefit assets and current and noncurrent postretirement benefit liabilities.
h. Separately, the net gain or loss and net prior service cost or credit recognized in other comprehensive income for the period pursuant to paragraphs 715-30-35-11, 715-30-35-21, 715-60-35-16, and 715-60-35-25 and reclassification adjustments of other comprehensive income for the period, as those amounts, including amortization of the net transition asset or obligation, are recognized as components of net periodic benefit cost.
i. The amounts in accumulated other comprehensive income that have not yet been recognized as components of net periodic benefit cost, showing separately the net gain or loss, net prior service cost or credit, and net transition asset or obligation.

j. On a weighted-average basis, all of the following assumptions used in the accounting for the plans, specifying in a tabular format, the assumptions used to determine the benefit obligation and the assumptions used to determine net benefit cost:
   1. Assumed discount rates (~~refer to~~see paragraph 715-30-35-45 for a discussion of representationally faithful disclosure)
   2. Rates of compensation increase (for pay-related plans)
   3. Expected long-term rates of return on plan assets.
k. The assumed health care cost trend rate(s) for the next year used to measure the expected cost of benefits covered by the plan (gross eligible charges), and a general description of the direction and pattern of change in the assumed trend rates thereafter, together with the ultimate trend rate(s) and when that rate is expected to be achieved.
l. If applicable, the amounts and types of securities of the employer and related parties included in plan assets, the approximate amount of future annual benefits of plan participants covered by insurance contracts, including annuity contracts, issued by the employer or related parties, and any significant transactions between the employer or related parties and the plan during the period.
m. The nature and effect of significant nonroutine events, such as amendments, combinations, divestitures, curtailments, and settlements.
n. The amounts in accumulated other comprehensive income expected to be recognized as components of net periodic benefit cost over the fiscal year that follows the most recent annual statement of financial position presented, showing separately the net gain or loss, net prior service cost or credit, and net transition asset or obligation.
o. The amount and timing of any plan assets expected to be returned to the employer during the 12-month period, or operating cycle if longer, that follows the most recent annual statement of financial position presented.
p. Subparagraph not used.
q. The amount of net periodic benefit cost recognized.

12. Amend paragraph 715-20-55-17, with a link to transition paragraph 820-10-65-7, as follows:

Implementation Guidance and Illustrations

715-20-55-16 The following illustrates the fiscal 20X3 financial statement disclosures for an employer (Entity A) with multiple defined benefit pension plans and other postretirement benefit plans (dollar amounts in millions). Narrative descriptions of the basis used to determine the overall expected long-term rate-of-return-on-assets assumption (see paragraph 715-20-50-1(d)(iii)) and disclosure of the valuation technique(s) and inputs used to measure the fair value of plan assets and a discussion of changes in valuation techniques and inputs (see paragraph 715-20-55-1(d)(iv)(.03)), if any, are not included in this Example. The narrative description of the basis used to determine the overall expected long-term rate-of-return-on-assets assumption is meant to be entity-specific. For purposes of this Example, the disclosures required by paragraphs 715-20-50-1(d)(ii) and 715-20-50-1(d)(iv) are provided for only the fiscal year ending December 31, 20X3. However, those paragraphs indicate that the disclosures are required to be presented as of each date for which a statement of financial position is presented.

715-20-55-17 During 20X3, Entity A acquired FV Industries and amended its plans. Entity A would make the following disclosure.

Notes to Financial Statements

Pension and Other Postretirement Benefit Plans

Entity A has both funded and unfunded noncontributory defined benefit pension plans that together cover substantially all of its employees. The plans provide defined benefits based on years of service and final average salary.

Entity A also has other postretirement benefit plans covering substantially all of its employees. The health care plans are contributory with participants' contributions adjusted annually; the life insurance plans are noncontributory. The accounting for the health care plans anticipates future cost-sharing changes to the written plans that are consistent with the entity's expressed intent to increase retiree contributions each year by 50 percent of health care cost increases in excess of 6 percent. The postretirement health care plans include a limit on the entity's share of costs for recent and future retirees.

Entity A acquired FV Industries on December 27, 20X3, including its pension plans and other postretirement benefit plans. Amendments made at the end of 20X3 to Entity A's plans increased the pension benefit obligations by $70 and reduced the other postretirement benefit obligations by $75.

Obligations and Funded Status

At December 31

	Pension Benefits		Other Benefits	
	20X3	**20X2**	**20X3**	**20X2**
Change in benefit obligation				
Benefit obligation at beginning of year	$1,246	$1,200	$ 742	$ 712
Service cost	76	72	36	32
Interest cost	90	88	55	55
Plan participants' contributions			20	13
Amendments	70		(75)	
Actuarial loss	20		25	
Acquisition	900		600	
Benefits paid	(125)	(114)	(90)	(70)
Benefit obligation at end of year	2,277	1,246	1,313	742
Change in plan assets				
Fair value of plan assets at beginning of year	1,068	894	206	87
Actual return on plan assets	29	188	5	24
Acquisition	1,000		25	
Employer contributions	75	100	137	152
Plan participants' contributions			20	13
Benefits paid	(125)	(114)	(90)	(70)
Fair value of plan assets at end of year	2,047	1,068	303	206
Funded status at end of year	$ (230)	$ (178)	$(1,010)	$ (536)

[Note: Nonpublic entities are not required to provide information in the preceding tables; they are required to disclose the employer's contributions, participants' contributions, benefit payments, and the funded status.]

Amounts recognized in the statement of financial position consist of the following.

	Pension Benefits		Other Benefits	
	20X3	**20X2**	**20X3**	**20X2**
Noncurrent assets	$ 227	$ 127	$ -	$ -
Current liabilities	(125)	(125)	(150)	(150)
Noncurrent liabilities	(332)	(180)	(860)	(386)
	$ (230)	$ (178)	$(1,010)	$ (536)

Amounts recognized in accumulated other comprehensive income consist of the following.

	Pension Benefits		Other Benefits	
	20X3	20X2	20X3	20X2
Net loss (gain)	$ 94	$ 18	$ (11)	$ (48)
Prior service cost (credit)	210	160	(92)	(22)
	$ 304	$ 178	$ (103)	$ (70)

The accumulated benefit obligation for all defined benefit pension plans was $1,300 and $850 at December 31, 20X3, and 20X2, respectively.

Information for pension plans with an accumulated benefit obligation in excess of plan assets

	December 31	
	20X3	20X2
Projected benefit obligation	$ 263	$ 247
Accumulated benefit obligation	237	222
Fair value of plan assets	84	95

Components of Net Periodic Benefit Cost and Other Amounts Recognized in Accumulated Other Comprehensive Income

	Pension Benefits		Other Benefits	
Net Periodic Benefit Cost	20X3	20X2	20X3	20X2
Service cost	$ 76	$ 72	$ 36	$ 32
Interest cost	90	88	55	55
Expected return on plan assets	(85)	(76)	(17)	(8)
Amortization of prior service cost	20	16	(5)	(5)
Amortization of net (gain) loss	-	-	-	-
Net periodic benefit cost	$ 101	$ 100	$ 69	$ 74

Other Changes in Plan Assets and Benefit Obligations Recognized in Other Comprehensive Income

	Pension Benefits		Other Benefits	
	20X3	20X2	20X3	20X2
Net loss (gain)	$ 76	$ 112	$ 37	$ (48)
Prior service cost (credit)	70	-	(75)	(27)
Amortization of prior service cost	(20)	(16)	5	5
Total recognized in other comprehensive income	126	96	(33)	(70)
Total recognized in net periodic benefit cost and other comprehensive income	$ 227	$ 196	$ 36	$ 4

The estimated net loss and prior service cost for the defined benefit pension plans that will be amortized from accumulated other comprehensive income into net periodic benefit cost over the next fiscal year are $4 and $27, respectively. The estimated prior service credit for the other defined benefit postretirement plans that will be amortized from accumulated other comprehensive income into net periodic benefit cost over the next fiscal year is $10.

[Note: Nonpublic entities are not required to separately disclose components of net periodic benefit cost.]

Assumptions

Weighted-average assumptions used to determine benefit obligations at December 31

	Pension Benefits		Other Benefits	
	20X3	20X2	20X3	20X2
Discount rate	6.75%	7.25%	7.00%	7.50%
Rate of compensation increase	4.25	4.50		

Weighted-average assumptions used to determine net periodic benefit cost for years ended December 31

	Pension Benefits		Other Benefits	
	20X3	20X2	20X3	20X2
Discount rate	7.25%	7.50%	7.50%	7.75%
Expected long-term return on plan assets	8.00	8.50	8.10	8.75
Rate of compensation increase	4.50	4.75		

[Entity-specific narrative description of the basis used to determine the overall expected long-term rate of return on assets, as described in paragraph 715-20-50-1(d)(iii), would be included here.]

Assumed health care cost trend rates at December 31

	20X3	20X2
Health care cost trend rate assumed for next year	12%	12.5%
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)	6%	5%
Year that the rate reaches the ultimate trend rate	20X9	20X9

Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects.

	1-Percentage-Point Increase	1-Percentage-Point Decrease
Effect on total of service and interest cost	$ 22	$ (20)
Effect on postretirement benefit obligation	173	(156)

[Note: Nonpublic entities are not required to provide the information about the impact of a one-percentage-point increase and one-percentage-point decrease in the assumed health care cost trend rates.]

Plan Assets

The company's overall investment strategy is to achieve a mix of approximately 75 percent of investments for long-term growth and 25 percent for near-term benefit payments with a wide diversification of asset types, fund strategies, and fund managers. The target allocations for plan assets are 65 percent equity securities, 20 percent corporate bonds and U.S. Treasury securities, and 15 percent to all other types of investments. Equity securities primarily include investments in large-cap and mid-cap companies primarily located in the United States. Fixed income securities include corporate bonds of companies from diversified industries, mortgage-backed securities, and U.S. Treasuries. Other types of investments include investments in hedge funds and private equity funds that follow several different strategies.

The fair value of Entity A's pension plan assets at December 31, 20X3, by asset ~~category~~class are as follows.

[Note: The two methods for disclosing the fair value of ~~major categories~~classes of plan assets presented below are not intended to be treated as a template. While they both provide examples of disclosures that comply with the requirements of paragraph 715-20-50-5(d)(ii), the ~~major categories~~classes disclosed should be tailored to the nature and risks of assets in an employer's plan(s). Additionally, an employer should consider the overall objectives in ~~paragraphs~~paragraph 715-20-50-5(d)(1), ~~715-20-50-5(d)(2), and 715-20-50-5(d)(5).]~~(2), and (5).]

Method 1:

		Fair Value Measurements at December 31, 20X3 (in millions)		
Asset ~~Category~~ Class	**Total**	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Cash	$ 150	$ 150		
Equity securities:				
U.S. large-cap [(a)]	550	550		
U.S. mid-cap growth	100	100		
International large-cap value	325	325		
Emerging markets growth	75	25	$ 50	
Domestic real estate	100	20	80	
Fixed income securities:				
U.S. Treasuries	200	200		
Corporate bonds [(b)]	200		200	
Mortgage-backed securities	50		50	
Other types of investments:				
Equity long/short hedge funds [(c)]	55			$ 55
Event driven hedge funds [(d)]	45			45
Global opportunities hedge funds [(e)]	35			35
Multi-strategy hedge funds [(f)]	40			40
Private equity funds [(g)]	47			47
Real estate	75			75
Total	**$ 2,047**	**$ 1,370**	**$ 380**	**$ 297**

(a) This ~~category~~class comprises low-cost equity index funds not actively managed that track the S&P 500.

(b) This ~~category~~class represents investment grade bonds of U.S. issuers from diverse industries.

(c) This ~~category~~class includes hedge funds that invest both long and short in primarily U.S. common stocks. Management of the hedge funds has the ability to shift investments from value to growth strategies, from small to large capitalization stocks, and from a net long position to a net short position.

(d) This ~~category~~class includes investments in approximately 60% equities and 40% bonds to profit from economic, political, and government driven events. A majority of the investments are targeted at economic policy decisions.

(e) This ~~category~~class includes approximately 80% investments in non-U.S. common stocks in the health care, energy, information technology, utilities, and telecommunications sectors and approximately 20% investments in diversified currencies.

(f) This ~~category~~class invests in multiple strategies to diversify risks and reduce volatility. It includes investments in approximately 50% U.S. common stocks, 30% global real estate projects, and 20% arbitrage investments.

(g) This ~~category~~class includes several private equity funds that invest primarily in U.S. commercial real estate.

[Note: Presented below is another method by which management could disclose ~~categories~~classes of plan assets.]

Method 2:

		Fair Value Measurements at December 31, 20X3 (in millions)		
Asset ~~Category~~ Class	**Total**	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Cash	$ 150	$ 150		
Equity securities:				
U.S. companies	400	400		
International companies	300	300		
Mutual funds [a]	450	320	$ 130	
U.S. Treasury securities	200	200		
AA corporate bonds	100		100	
A corporate bonds	100		100	
Mortgage-backed securities	50		50	
Equity long/short hedge funds [b]	55			$ 55
Event driven hedge funds [c]	45			45
Global opportunities hedge funds [d]	35			35
Multi-strategy hedge funds [e]	40			40
Private equity funds [f]	47			47
Real estate	75			75
Total	**$ 2,047**	**$ 1,370**	**$ 380**	**$ 297**

(a) 70% of mutual funds invest in common stock of large-cap U.S. companies. 30% of the company's mutual fund investments focus on emerging markets and domestic real estate common stocks.

(b) This ~~category~~class includes hedge funds that invest both long and short in primarily U.S. common stocks. Management of the hedge funds has the ability to shift investments from value to growth strategies, from small to large capitalization stocks, and from a net long position to a net short position.

(c) This ~~category~~class includes investments in approximately 60% equities and 40% bonds to profit from economic, political, and government driven events. A majority of the investments are targeted at economic policy decisions.

(d) This ~~category~~class includes approximately 80% investments in non-U.S. common stocks in the health care, energy, information technology, utilities, and telecommunications sectors and approximately 20% investments in diversified currencies.

(e) This ~~category~~class invests in multiple strategies to diversify risks and reduce volatility. It includes investments in approximately 50% U.S. common stocks, 30% global real estate projects, and 20% arbitrage investments.

(f) This ~~category~~class includes several private equity funds that invest primarily in U.S. commercial real estate.

[Note: An entity shall disclose the following information regardless of its method for disclosing ~~major categories~~classes of plan assets.]

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)						
	Equity Long/ Short Hedge Funds	Event Driven Hedge Funds	Global Opportu-nities Hedge Funds	Multi-Strategy Hedge Funds	Private Equity Funds	Real Estate	Total
Beginning balance at December 31, 20X2	$ 40	$ 35	$ 39	$ 35	$ 40	$ 10	$ 199
Actual return on plan assets:							
Relating to assets still held at the reporting date	(2)	5	(7)	5	2	3	6
Relating to assets sold during the period		3			2		5
Purchases, sales, and settlements	15	2			3	62	82
Transfers in and/or out of Level 3	2		3				5
Ending balance at December 31, 20X3	$ 55	$ 45	$ 35	$ 40	$ 47	$ 75	$ 297

[Entity-specific narrative description of investment policies and strategies for plan assets, including weighted-average target asset allocations [if used as part of those policies and strategies] as described in paragraph 715-20-50-1(d)(ii) would be included here.]

The fair values of Entity A's other postretirement benefit plan assets at December 31, 20X3, by asset ~~category~~class are as follows.

		Fair Value Measurements at December 31, 20X3 (in millions)		
Asset ~~Category~~ Class	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Diversified equity securities	$ 150	$ 150	-	$ -
U.S. Treasury securities	50	50	-	-
Diversified corporate bonds	103	-	$ 103	-
Total	$ 303	$ 200	$ 103	$ -

Diversified equity securities include Entity A common stock in the amounts of $12 at December 31, 20X3.

Cash Flows

Contributions

Entity A expects to contribute $125 million to its pension plan and $150 million to its other postretirement benefit plan in 20X4.

Estimated Future Benefit Payments

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid.

	Pension Benefits	Other Benefits
20X4	$ 200	$ 150
20X5	208	155
20X6	215	160
20X7	225	165
20X8	235	170
Years 20X9–20Y3	1,352	984

Amendments to Status Sections

13. Add paragraph 715-20-00-1 as follows:

715-20-00-1 The following table identifies the changes made to this Subtopic.

Paragraph Number	Action	Accounting Standards Update	Date
715-20-50-1	Amended	2010-06	01/21/2010
715-20-50-5	Amended	2010-06	01/21/2010
715-20-55-17	Amended	2010-06	01/21/2010

14. Amend paragraph 820-10-00-1, by adding the following items to the table, as follows:

820-10-00-1 The following table identifies the changes made to this Subtopic.

Paragraph Number	Action	Accounting Standards Update	Date
820-10-50-1	Amended	2010-06	01/21/2010
820-10-50-2	Amended	2010-06	01/21/2010
820-10-50-2A	Added	2010-06	01/21/2010

820-10-50-3	Amended	2010-06	01/21/2010
820-10-50-5	Amended	2010-06	01/21/2010
820-10-50-6A	Amended	2010-06	01/21/2010
820-10-55-22A	Added	2010-06	01/21/2010
820-10-55-22B	Added	2010-06	01/21/2010
820-10-55-61 through 55-64A	Amended	2010-06	01/21/2010
820-10-65-7	Added	2010-06	01/21/2010

The amendments in this Update were adopted by the unanimous vote of the five members of the Financial Accounting Standards Board:

Robert H. Herz, *Chairman*
Thomas J. Linsmeier
Leslie F. Seidman
Marc A. Siegel
Lawrence W. Smith

Background Information and Basis for Conclusions

BC1. The following summarizes the Board's considerations in reaching the conclusions in this Update. It includes reasons for accepting certain approaches and rejecting others. Individual Board members gave greater weight to some factors than to others.

Background Information

BC2. U.S. GAAP requires that a reporting entity provide disclosures about fair value measurements used in financial statements. Most of those requirements are set out in Subtopic 820-10.

BC3. A number of constituents recommended that the Board improve disclosure requirements in U.S. GAAP on fair value measurements. Some of the more recent requests and developments include the following:

a. During 2008, the Securities and Exchange Commission's (SEC) Division of Corporation Finance issued letters to some public companies that encouraged additional disclosures in the management's discussion and analysis (MD&A) section of their SEC filings about the application of the fair value measurement standards in U.S. GAAP.
b. In October 2008, in responding to FSP FAS 157-3, *Determining the Fair Value of a Financial Asset When the Market for That Asset Is Not Active,* some financial statement users urged the Board to enhance the disclosure requirements in U.S. GAAP on fair value measurements.
c. In October 2008, the International Accounting Standard Board's (IASB) Expert Advisory Panel issued a report titled *Measuring and Disclosing the Fair Value of Financial Instruments in Markets That Are No Longer Active*. On the basis of that report, the IASB issued proposals to improve the fair value disclosures in IFRS 7.
d. In December 2008, the SEC released its *Report and Recommendations Pursuant to Section 133 of the Emergency Economic Stabilization Act of 2008: Study on Mark-To-Market Accounting*. This report recommended that the FASB consider enhancing the disclosure requirements in U.S. GAAP on fair value measurements.
e. In February 2009, the FASB's Valuation Resource Group met to discuss various issues on the implementation of fair value disclosure requirements in U.S. GAAP and suggested additional disclosures.
f. In March 2009, the International Monetary Fund issued the Working Paper, *Procyclicality and Fair Value Accounting*. The authors of that

Paper recommend that fair value measurements be supplemented with adequate disclosures.

g. In March 2009, the IASB issued *Improving Disclosures about Financial Instruments (Amendments to IFRS 7)*. The amendments require some new disclosures and improve convergence with the fair value hierarchy and the related disclosures in Subtopic 820-10.

BC4. In response to the developments summarized above, the Board issued a proposed Accounting Standards Update, *Fair Value Measurements and Disclosures (Topic 820): Improving Disclosures about Fair Value Measurements,* on August 28, 2009. The Board received 111 comment letters in response to questions in the proposed Update. The Board considered those comments during its redeliberations of the issues addressed by the proposed Update at a public Board meeting in November 2009.

Clarifications of Existing Disclosure Requirements

Level of Disaggregation

BC5. Existing U.S. GAAP on fair value measurement and disclosures requires that a reporting entity provide disclosures about fair value measurements for each major category of assets and liabilities. Some users noted that many companies have interpreted the term *major category* to mean a line item in the statement of financial position. Those users told the Board that disclosures at that relatively high level of aggregation are often less useful. They recommended that the Board require that entities provide disclosures for meaningful subsets of line items in the statement of financial position.

BC6. The Board concluded that disclosures about fair value measurements are more useful if an entity provided them for each class of assets and liabilities within the line items in the statement of financial position. The Board decided to amend U.S. GAAP on fair value measurements and disclosures to include additional guidance on determining the appropriate level of disaggregation for those disclosures.

Disclosures about Inputs to Recurring Fair Value Measurements

BC7. U.S. GAAP on fair value measurements and disclosures includes specific objectives that an entity should achieve when providing disclosures about recurring fair value measurements (paragraph 820-10-50-1). Those objectives state:

> The reporting entity shall disclose information that enables users of its financial statements to assess both of the following:

a. For assets and liabilities that are measured at **fair value** on a recurring basis in periods subsequent to initial recognition (for example, trading securities), the **inputs** used to develop those measurements
b. For recurring fair value measurements using significant **unobservable inputs** (Level 3), the effect of the measurements on earnings (or changes in net assets) for the period.

BC8. U.S. GAAP on fair value measurements and disclosures also provides a list of specific disclosures necessary to achieve the above objectives; however, that list does not include a requirement to discuss the inputs to recurring fair value measurements. The Board notes that paragraph 820-10-50-2(e) requires that a reporting entity describe the techniques used for recurring fair value measurements. In the Board's view, a discussion of techniques is incomplete without a discussion of the inputs. However, the Board concluded that a more explicit requirement to discuss the inputs for recurring fair value measurements will clarify and improve disclosures. The amendments in this Update also clarify that for recurring, as well as nonrecurring, fair value measurements, the disclosures about inputs and valuation techniques apply to both Level 2 and Level 3 fair value measurements, not just Level 3 fair value measurements.

New Disclosures Requirements

Transfers between Levels 1, 2, and 3

BC9. Paragraph 820-10-50-2(c)(3) requires disclosure of the amounts of transfers in and/or out of Level 3 inputs. Financial statement users have indicated that similar information for significant transfers between all input levels (that is, Levels 1, 2, and 3) during the reporting period are useful. IFRS 7, as amended in March 2009, requires the disclosure of that information. Users may use the information about the amounts and reasons for transfers between levels in their assessment of the reporting entity's quality of reported earnings and expected future cash flows. The Board concluded that information about significant transfers between Levels 1, 2, and 3 is useful and should be required.

Activity in Level 3 Fair Value Measurements

BC10. Users indicated that for fair value measurements using significant unobservable inputs (Level 3), information about movements due to purchases, sales, issuances, and settlements is most helpful if it is not presented as a single net amount (for example, see paragraph 144(b) on page 47 of the IASB's October 2008 Expert Advisory Panel Report, *Measuring and Disclosing the Fair Value of Financial Instruments in Markets That Are No Longer Active*). Therefore, the proposed amendments required presentation of this activity on a gross rather than net basis.

BC11. Respondents who commented on that issue had mixed opinions about the operationality and usefulness of providing purchases, sales, issuances, and settlements of Level 3 fair value measurements on a gross basis. Users, accounting firms, valuation firms, and some banks generally agreed with the requirement, while private equity firms and entities with significant trading activities stated that the requirement was too onerous, or was operational, but would not provide useful information. The Board noted that IFRS 7, as amended in March 2009, also requires separate disclosure of Level 3 purchases, sales, issuances, and settlements. The Board concluded that the proposed disclosure is useful and should be required because it would indicate the reasons for changes in Level 3 fair value measurements. However, the Board decided on a delayed effective date and prospective transition to give entities that need significant changes to their information systems adequate time to comply with the new disclosure requirement.

Other Disclosures Considered

Effect of Reasonably Possible Alternative Level 3 Inputs—Sensitivity Disclosures

BC12. Regarding fair value measurements using Level 3 inputs, financial statement users indicated that information about the effect(s) of reasonably possible alternative inputs (sometimes also referred to as sensitivity analysis) would be relevant in their analysis of the reporting entity's performance.

BC13. Under current SEC rules, registrants may present sensitivity information to comply with the disclosure requirements in Financial Reporting Release No. 48, *Disclosure of Accounting Policies for Derivative Financial Instruments and Derivative Commodity Instruments and Disclosure of Quantitative and Qualitative Information About Market Risk Inherent in Derivative Financial Instruments, Other Financial Instruments, and Derivative Commodity Instruments,* for quantitative information about exposure to future changes in market risk from financial instruments. Consequently, some SEC registrants may already be providing sensitivity information in their MD&A disclosures although it is different from the type of sensitivity information that was included in the proposed Update. Furthermore, IFRS 7, as amended in March 2009, requires sensitivity information about potential changes in fair value measurements resulting from using reasonably possible alternative Level 3 inputs.

BC14. To be consistent with the approach adopted in IFRS 7, as amended in March 2009, amendments in the proposed Update did not prescribe any specific method to calculate the effect(s) of reasonably possible alternative inputs but did require disclosure of the method that the reporting entity used in complying with the sensitivity disclosure requirement. While not prescribing any specific method, the amendments in the proposed Update would have clarified that when estimating the effect of more than one reasonably possible input, the reporting entity should include the expected effect of correlation among changes in different significant inputs. For sensitivity disclosures to be useful for further analyses by users of financial statements, the proposed Update also would have required quantitative disclosure about the significant inputs used in Level 3 measurements and about reasonably possible alternative inputs.

BC15. Before issuing the proposed Update, the Board asked the staff to seek preparer input to assess the operationality of the disclosures about the level of disaggregation and about the effect(s) of reasonably possible alternative inputs for fair value measurements using significant unobservable inputs (Level 3) (sometimes also referred to as sensitivity analysis). Seven financial statement preparers volunteered to participate in that outreach effort. The proposed Update incorporated some of the suggestions made by those preparers.

BC16. During September and October 2009, the FASB staff conducted additional outreach with various entities. The effort involved calls with firms that provide third-party security pricing data (that is, pricing services) and a user group. As a result of that effort, the staff gained a better understanding of the operationality and usefulness of the proposed sensitivity disclosures for Level 3 fair value measurements.

BC17. Most respondents (other than users) did not support the proposed sensitivity disclosures. They stated that the proposed disclosures would be challenging to implement and would significantly increase costs while providing little, if any, benefit to users. Many respondents stated that the information provided by the proposed sensitivity disclosures would not be decision useful because the range of reasonably possible Level 3 fair values would be extremely wide and, thus, would be meaningless and possibly confusing to users. Other respondents questioned the usefulness of the information due to the complexities in capturing correlation and interdependencies among multiple significant inputs.

BC18. Some respondents also noted differences between the disclosure requirements in the proposed Update and those in IFRS 7. For example, entities are not required to consider the correlation between multiple significant inputs in the sensitivity disclosures under IFRS 7.

BC19. Users, however, supported the proposed disclosures because, in their view, the disclosures would provide useful information to better understand a reporting entity's fair value measurements, especially Level 3 measurements. Users noted the inherent subjectivity in Level 3 measurements and stated that the proposed sensitivity information would allow them to better evaluate the reporting entity's cash flows, earnings, capital requirements, and compliance with debt covenants.

BC20. At the October 2009 joint meeting, the FASB and the IASB decided that the staffs of both Boards should develop recommendations that would seek to eliminate all differences in the Boards' guidance for fair value measurement and disclosure. The staffs have not yet performed a formal analysis to identify the differences in fair value disclosures. The FASB staff also would like to obtain input from the IASB staff and others about the operationality and usefulness of the sensitivity disclosures required under IFRS 7.

BC21. In view of the respondents' concerns about the operationality and costs of the sensitivity disclosures in the proposed Update and the October 2009 joint Board meeting decision to achieve convergence on fair value measurement and disclosure, the FASB decided to defer consideration of the proposed sensitivity disclosures. In the meantime, the FASB staff will assess the operationality and usefulness of similar disclosures currently required under IFRS 7. A final decision on the Level 3 sensitivity disclosures will be part of the convergence project on fair value measurement and disclosures.

Conforming Amendments to Subtopic 715-20

BC22. This Update includes conforming amendments to guidance on employers' disclosures about postretirement benefit plan assets (Subtopic 715-20). The Board does not expect any significant changes in the application of Subtopic 715-20, as amended, because the objectives and basic principles of disaggregating fair value disclosures are the same for the financial statements of both an employer and a postretirement plan. The conforming amendments to Subtopic 715-20 change the terminology from *major categories* of assets to *classes* of assets and provide a cross reference to the guidance in Subtopic 820-10 on how to determine appropriate classes to present fair value disclosures.

Effective Date

BC23. The proposed Update would have required that the disclosures be effective for annual or interim reporting periods ending after December 15, 2009, except for Level 3 sensitivity disclosures, which would have been effective for periods ending after March 15, 2010.

BC24. Respondents generally disagreed with the proposed effective date(s), stating that additional time is necessary for entities to comply with the expanded disclosure requirements. Those respondents stated that the period would be used to make necessary information systems changes and to provide adequate time to comply with other accounting requirements that will become effective at year-end, such as the guidance in FASB Statements No. 166, *Accounting for Transfers of Financial Assets,* and No. 167, *Amendments to FASB Interpretation No. 46(R).*

BC25. Based on the input from constituents, the Board concluded that the guidance in this Update should be effective for annual and interim reporting periods beginning after December 15, 2009, except for the requirement to provide the Level 3 activity between purchases, sales, issuances, and settlements on a gross basis. That requirement is effective for fiscal years beginning after December 15, 2010, and for interim periods within those fiscal years.

Benefits and Costs

BC26. The objective of financial reporting is to provide information that is useful to present and potential investors, creditors, donors, and other capital market participants in making rational investment, credit, and similar resource allocation decisions. However, the benefits of providing information for that purpose should justify the related costs. Present and potential investors, creditors, donors, and other users of financial information benefit from improvements in financial reporting, while the costs to implement new guidance are borne primarily by present investors. The Board's assessment of the costs and benefits of issuing new guidance is unavoidably more qualitative than quantitative because there is no method to objectively measure the costs to implement new guidance or to quantify the value of improved information in financial statements.

BC27. Users have told the Board that a greater level of disaggregation information about fair value measurements as well as more robust disclosures about valuation techniques and assumptions related to Level 2 and Level 3 measurements are useful in their analysis of a reporting entity's performance and expected future cash flows. Furthermore, users have said that because of the different degrees of subjectivity and reliability of Level 1, Level 2, and Level 3 fair value measurements, information about significant transfers between the three levels and the reasons for such transfers are useful. They also are interested in the level of activity in the Level 3 roll forward, which is indicated by the separate disclosure of gross purchases, sales, issuances, and settlements rather than as one net number.

BC28. The Board concluded that the information required to comply with the amendments in this Update generally should be available to most reporting entities without significant changes to their current information systems. Regarding the reporting of purchases, sales, issuances, and settlements on a gross basis in the Level 3 roll forward, the Board acknowledges that some entities will need to change information systems, and therefore, has provided a delayed effective date for that disclosure.

Amendments to the XBRL Taxonomy

The following elements are proposed additions or modifications to the XBRL taxonomy as a result of the amendments in this Update. (Elements that currently exist in the 2009 taxonomy are marked with an asterisk* and have been **bolded.** If an existing element was modified, it has been marked to reflect any changes.)

Standard Label[†]	Definition	Codification Reference
OBSERVABLE/RECURRING OR NONRECURRING /ASSETS		
Fair Value, Assets, Measurement with Observable Inputs, Significant Transfers Into Level 1 from Level 2 Fair Value Measurements, [Text Block]	This element represents significant transfers of assets into Level 1 from Level 2 of the fair value hierarchy and the reasons for those transfers.	820-10-50-2(bb)
Fair Value, Assets, Measurement with Observable Inputs, Significant Transfers Out of Level 1 and Into Level 2 Fair Value Measurements, [Text Block]	This element represents significant transfers of assets out of Level 1 and into Level 2 of the fair value hierarchy and the reasons for those transfers.	820-10-50-2(bb)
Fair Value, Assets Measured on Recurring Basis, Reason for Significant Transfers between Level 1 and Level 2 Fair Value Measurements	Disclosure of the reasons for significant transfers between Level 1 and Level 2 fair value measurements.	820-10-50-2-(bb)

[†]The Standard Label and the Element Name are the same (except that the Element Name does not include spaces). If they are different, the Element Name is shown in *italics* after the Standard Label.

Standard Label[†]	Definition	Codification Reference
Fair Value, Assets Measured on Recurring Basis, Observable Inputs, Description and Development [Text Block]	This item represents, for each class of assets, a description of the inputs and the information used to develop the inputs for fair value measurements using observable inputs (Level 2).	820-10-20-2(e)
Fair Value, Assets Measured on Recurring Basis, Valuation Techniques [Text Block]	This element discloses the valuation techniques used to measure fair value, and a discussion of changes in valuation techniques, if any, applied during the period to each separate class of assets (Level 2).	820-10-50-2(e)
Fair Value, Assets Measured on Recurring Basis, Inputs [Text Block]	This element discloses the inputs used to measure fair value, and a discussion of changes in inputs, if any, applied during the period to each separate class of assets (Level 2).	820-10-50-2(e)
UNOBSERVABLE/RECURRING/ASSETS		
Fair Value, Measurement with Unobservable Inputs Reconciliation, Recurring Basis, Assets, Transfers In	This element represents transfers in to Level 3 of assets measured at fair value on a recurring basis using unobservable inputs, which have taken place during the period.	820-10-50-2(c)(3)
Fair Value, Measurement with Unobservable Inputs Reconciliation, Recurring Basis, Assets, Transfers Out	This element represents transfers out of Level 3 of assets measured at fair value on a recurring basis using unobservable inputs, which have taken place during the period.	820-10-50-2(c)(3)

Standard Label†	Definition	Codification Reference
Fair Value, Assets Measured on Recurring Basis, Reason for Significant Transfers In or Out of Level 3 Fair Value Measurement	Disclosure of the reasons for significant transfers in or out of Level 3 fair value measurement.	820-10-50-2-(c)(3)
***Fair Value, Measurement with Unobservable Inputs Reconciliation, Recurring Basis, Asset, Gain (Loss) Included in Other Comprehensive Income**	This element represents total gains or losses for the period (realized and unrealized) arising from assets measured at fair value on a recurring basis using unobservable inputs (Level 3), which are included in other comprehensive income (a separate component of shareholders' equity).	820-10-50-2(c)(1)
Fair Value, Measurement with Unobservable Inputs Reconciliation, Recurring Basis, Assets, Purchases	This element represents purchases that have taken place during the period in relation to assets measured at fair value on a recurring basis using unobservable inputs (Level 3).	820-10-50-2(c)(2)
Fair Value, Measurement with Unobservable Inputs Reconciliation, Recurring Basis, Assets, Sales	This element represents sales that have taken place during the period in relation to assets measured at fair value on a recurring basis using unobservable inputs (Level 3).	820-10-50-2(c)(2)
Fair Value, Measurement with Unobservable Inputs Reconciliation, Recurring Basis, Assets, Issuances	This element represents issuances that have taken place during the period in relation to assets measured at fair value on a recurring basis using unobservable inputs (Level 3).	820-10-50-2(c)(2)
Fair Value, Measurement with Unobservable Inputs Reconciliation, Recurring Basis, Assets, Settlements	This element represents settlements that have taken place during the period in relation to assets measured at fair value on a recurring basis using unobservable inputs (Level 3).	820-10-50-2(c)(2)

Standard Label†	Definition	Codification Reference
UNOBSERVABLE/ RECURRING OR NONRECURRING /ASSETS		
Fair Value, Assets Measured on Recurring Basis, Unobservable Inputs, Description and Development [Text Block]	This item represents, for each class of assets, a description of the inputs and the information used to develop the inputs for fair value measurements using observable inputs (Level 3).	820-10-20-2(e)
Fair Value, Assets Measured on Recurring Basis, Valuation Techniques [Text Block]	This element discloses the valuation techniques used to measure fair value, and a discussion of changes in valuation techniques, if any, applied during the period to each separate class of assets (Level 3).	820-10-50-2(e)
Fair Value, Assets Measured on Recurring Basis, Inputs [Text Block]	This element discloses the inputs used to measure fair value, and a discussion of changes in inputs, if any, applied during the period to each separate class of assets (Level 3).	820-10-50-2(e)
OBSERVABLE/RECURRING OR NONRECURRING /LIABILITIES		
Fair Value, Liabilities, Measurement with Observable Inputs, Significant Transfers between Level 1 and Level 2 Fair Value Measurements, [Text Block]	This element represents significant transfers of liabilities between Level 1 and Level 2 of the fair value hierarchy and the reasons for those transfers.	820-10-50-2(bb)
Fair Value, Liabilities, Measurement with Observable Inputs, Significant Transfers Out of Level 1 and	This element represents significant transfers of liabilities out of Level 1 and into Level 2 of the fair value hierarchy and the reasons for those transfers.	820-10-50-2(bb)

Standard Label†	Definition	Codification Reference
Into Level 2 Fair Value Measurements, [Text Block]		
Fair Value, Liabilities Measured on Recurring Basis, Reason for Significant Transfers between Level 1 and Level 2 Fair Value Measurements	Disclosure of the reasons for significant transfers between Level 1 and Level 2 fair value measurements.	820-10-50-2-(bb)
Fair Value, Liabilities Measured on Recurring Basis, Observable Inputs, Description and Development [Text Block]	This item represents, for each class of liabilities, a description of the inputs and the information used to develop the inputs for fair value measurements using observable inputs (Level 2).	820-10-20-2(e)
Fair Value, Liabilities Measured on Recurring Basis, Valuation Techniques [Text Block]	This element discloses the valuation techniques used to measure fair value, and a discussion of changes in valuation techniques, if any, applied during the period to each separate class of liabilities (Level 2).	820-10-50-2(e)
Fair Value, Liabilities Measured on Recurring Basis, Inputs [Text Block]	This element discloses the inputs used to measure fair value, and a discussion of changes in inputs, if any, applied during the period to each separate class of liabilities (Level 2).	820-10-50-2(e)
UNOBSERVABLE/ RECURRING OR NONRECURRING /LIABILITIES		
Fair Value, Liabilities Measured on Recurring Basis, Unobservable Inputs, Description and Development [Text Block]	This item represents, for each class of assets, a description of the inputs and the information used to develop the inputs for fair value measurements using observable inputs (Level 3).	820-10-20-2(e)

Standard Label†	**Definition**	**Codification Reference**
Fair Value, Liabilities Measured on Recurring Basis, Valuation Techniques [Text Block]	This element discloses the valuation techniques used to measure fair value, and a discussion of changes in valuation techniques, if any, applied during the period to each separate class of liabilities (Level 3).	820-10-50-2(e)
Fair Value, Liabilities Measured on Recurring Basis, Inputs [Text Block]	This element discloses the inputs used to measure fair value, and a discussion of changes in inputs, if any, applied during the period to each separate class of liabilities (Level 3).	820-10-50-2(e)
UNOBSERVABLE/ RECURRING/LIABI LITY		
Fair Value, Measurement with Unobservable Inputs Reconciliation, Recurring Basis, Liabilities, Transfers In	This element represents transfers in to liabilities measured at fair value on a recurring basis using unobservable inputs (Level 3) that have taken place during the period.	820-10-50-2(c)(3)
Fair Value, Measurement with Unobservable Inputs Reconciliation, Recurring Basis, Liabilities, Transfers Out	This element represents transfers out of liabilities measured at fair value on a recurring basis using unobservable inputs (Level 3) that have taken place during the period.	820-10-50-2(c)(3)
Fair Value, Liabilities Measured on Recurring Basis, Reason for Significant Transfers In or Out of Level 3 Fair Value Measurement	Disclosure of the reasons for significant transfers in or out of Level 3 fair value measurement.	820-10-50-2(c)(3)
***Fair Value, Measurement with Unobservable Inputs Reconciliation, Recurring Basis, Liabilities, Gain**	This element represents total gains or losses for the period (realized and unrealized) arising from liabilities measured at fair value on a recurring basis using unobservable inputs (Level 3) that are included in other comprehensive income (a separate	820-10-50-2(c)(1)

Standard Label†	Definition	Codification Reference
(Loss) Included in Other Comprehensive Income	component of shareholders' equity).	
Fair Value, Measurement with Unobservable Inputs Reconciliation, Recurring Basis, Liabilities, Purchases	This element represents purchases that have taken place during the period in relation to liabilities measured at fair value on a recurring basis using unobservable inputs (Level 3).	820-10-50-2(c)(2)
Fair Value, Measurement with Unobservable Inputs Reconciliation, Recurring Basis, Liabilities, Sales	This element represents sales that have taken place during the period in relation to liabilities measured at fair value on a recurring basis using unobservable inputs (Level 3).	820-10-50-2(c)(2)
Fair Value, Measurement with Unobservable Inputs Reconciliation, Recurring Basis, Liabilities, Issuances	This element represents issuances that have taken place during the period in relation to liabilities measured at fair value on a recurring basis using unobservable inputs (Level 3).	820-10-50-2(c)(2)
Fair Value, Measurement with Unobservable Inputs Reconciliation, Recurring Basis, Liabilities, Settlements	This element represents settlements that have taken place during the period in relation to liabilities measured at fair value on a recurring basis using unobservable inputs (Level 3).	820-10-50-2(c)(2)
***Fair Value, Assets Measured on Recurring Basis [Table]**	Summarization of information required and determined to be disclosed concerning assets, including (financial) instruments that are classified in stockholders' equity, which are measured at fair value on a recurring basis.	820-10-50-2(a) through (b)

Standard Label†	**Definition**	**Codification Reference**
***Fair Value, Assets Measured on Recurring Basis, Disclosure Items [Axis]**	This element represents a number of concepts that are required or desirable disclosure items concerning assets, including (financial) instruments that are classified in stockholders' equity, which are measured at fair value on a recurring basis.	820-10-50-2(a) through (b)
***Fair Value, Assets Measured on Recurring Basis, Disclosure Items [Domain]**	Provides the general information items required or determined to be disclosed with respect to assets, including (financial) instruments that are classified in stockholders' equity, which are measured at fair value on a recurring basis.	820-10-50-2(a) through (b)
***Estimate of Fair Value, Fair Value Disclosure [Member]**	This element represents the fair value of financial instruments (as defined), including financial assets and financial liabilities (collectively, as defined) for which it is practicable to estimate such value.	820-10-50-2(a) through (b)
***Fair Value, Inputs, Level 1 [Member]**	This item represents the amount of assets or liabilities, including (financial) instruments that are classified in stockholders' equity, which are measured at fair value on either a recurring or nonrecurring basis and fall within Level 1 of the fair value measurement hierarchy. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date.	820-10-50-2(a) through (b)
***Fair Value, Inputs, Level 2 [Member]**	This item represents the amount of assets or liabilities, including (financial) instruments that are classified in stockholders' equity, which are measured at fair value on either a recurring or nonrecurring basis and fall within Level 2 of the fair value measurement hierarchy. Level 2 inputs are inputs other than quoted	820-10-50-2(a) through (b)

Standard Label†	Definition	Codification Reference
	prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. Level 2 inputs include the following: (1) quoted prices for similar assets or liabilities in active markets, (2) quoted prices for identical or similar assets or liabilities in markets that are not active; that is, markets in which there are few transactions for the asset or liability, the prices are not current, or price quotations vary substantially either over time or among market makers (for example, some brokered markets), or in which little information is released publicly (for example, a principal-to-principal market), (3) inputs other than quoted prices that are observable for the asset or liability (for example, interest rates and yield curves observable at commonly quoted intervals, volatilities, prepayment speeds, loss severities, credit risks, and default rates), or (4) inputs that are derived principally from or corroborated by observable market data by correlation or other means (market-corroborated inputs).	
***Fair Value, Inputs, Level 3 [Member]**	This item represents the amount of assets or liabilities, including (financial) instruments that are classified in stockholders' equity, which are measured at fair value on either a recurring or nonrecurring basis and fall within Level 3 of the fair value measurement hierarchy. Level 3 inputs are unobservable inputs for the asset or liability. Unobservable inputs are used to measure fair value to the extent that observable inputs are not available; for example, when there is little, if any, market activity for the asset or liability at the measurement	820-10-50-2(a) through (b)

Standard Label†	Definition	Codification Reference
	date.	
RECURRING/ASSET		
***Fair Value, Assets Measured on Recurring Basis, Financial Statement Captions [Line Items]**	This element represents certain statement of financial position asset captions, which represent a class of assets, or that may include an individual asset, measured at fair value on a recurring basis.	820-10-50-2(a) through (b)
Fair Value, Assets Measured on Recurring Basis, Trading Securities	This element represents a certain statement of financial position asset caption, which represents a class of assets, or one that may include an individual asset, measured at fair value on a recurring basis.	820-10-50-2(a) through (b)
Fair Value, Assets Measured on Recurring Basis, Trading Securities, Equity Securities	This element represents a certain statement of financial position asset caption, which represents a class of assets, or one that may include an individual asset, measured at fair value on a recurring basis.	820-10-50-2(a) through (b)
Fair Value, Assets Measured on Recurring Basis, Trading Securities, Debt Securities	This element represents a certain statement of financial position asset caption, which represents a class of assets, or one that may include an individual asset, measured at fair value on a recurring basis.	820-10-50-2(a) through (b)
Fair Value, Assets Measured on Recurring Basis, Available-for-Sale Securities, Residential Mortgage-Backed Securities	This element represents a certain statement of financial position asset caption, which represents a class of assets, or one that may include an individual asset, measured at fair value on a recurring basis.	820-10-50-2(a) through (b)
Fair Value, Assets Measured on Recurring Basis, Available-for-Sale Securities, Commercial Mortgage-Backed	This element represents a certain statement of financial position asset caption, which represents a class of assets, or one that may include an individual asset, measured at fair value on a recurring basis.	820-10-50-2(a) through (b)

Standard Label†	**Definition**	**Codification Reference**
Securities		
Fair Value, Assets Measured on Recurring Basis, Available-for-Sale Securities, Collateralized Debt Obligations	This element represents a certain statement of financial position asset caption, which represents a class of assets, or one that may include an individual asset, measured at fair value on a recurring basis.	820-10-50-2(a) through (b)
Fair Value, Assets Measured on Recurring Basis, Available-for-Sale Securities, U.S. Treasury Securities	This element represents a certain statement of financial position asset caption, which represents a class of assets, or one that may include an individual asset, measured at fair value on a recurring basis.	820-10-50-2(a) through (b)
Fair Value, Assets Measured on Recurring Basis, Derivatives-Interest Rate Contracts	This element represents a certain statement of financial position asset caption, which represents a class of assets, or one that may include an individual liability, measured at fair value on a recurring basis.	820-10-50-2(a) through (b)
Fair Value, Assets Measured on Recurring Basis, Derivatives-Foreign Exchange Contracts	This element represents a certain statement of financial position asset caption, which represents a class of assets, or that may include an individual liability, measured at fair value on a recurring basis.	820-10-50-2(a) through (b)
RECURRING/LIABILITY		
***Fair Value, Liabilities Measured on Recurring Basis [Table]**	Summarization of information concerning assets required and determined to be disclosed, including (financial) instruments that are classified in stockholders' equity, which are measured at fair value on a recurring basis.	820-10-50-2(a) through (b)
***Fair Value, Liabilities Measured on Recurring Basis, Disclosure Items [Axis]**	This element represents a number of concepts that are required or desirable disclosure items concerning assets, including (financial) instruments that are classified in stockholders' equity, which are measured at fair value on a recurring	820-10-50-2(a) through (b)

Standard Label†	Definition	Codification Reference
	basis.	
***Fair Value, Liabilities Measured on Recurring Basis, Disclosure Items [Domain]**	This element represents a number of concepts that are required or desirable disclosure items concerning liabilities, including (financial) instruments that are classified in stockholders' equity, which are measured at fair value on a recurring basis.	820-10-50-2(a) through (b)
***Estimate of Fair Value, Fair Value Disclosure [Member]**	This element represents the fair value of financial instruments (as defined), including financial assets and financial liabilities (collectively, as defined) for which it is practicable to estimate such value.	820-10-50-2(a) through b)
***Fair Value, Inputs, Level 1 [Member]**	This item represents the amount of assets or liabilities, including (financial) instruments that are classified in stockholders' equity, which are measured at fair value on either a recurring or nonrecurring basis and fall within Level 1 of the fair value measurement hierarchy. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date.	820-10-50-2(a) through (b)
***Fair Value, Inputs, Level 2 [Member]**	This item represents the amount of assets or liabilities, including (financial) instruments that are classified in stockholders' equity, which are measured at fair value on either a recurring or nonrecurring basis and fall within Level 2 of the fair value measurement hierarchy. Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability either directly or indirectly. Level 2 inputs include the following: (1) quoted prices for similar assets or liabilities in active markets, (2) quoted	820-10-50-2(a) through (b)

Standard Label†	Definition	Codification Reference
	prices for identical or similar assets or liabilities in markets that are not active, that is, markets in which there are few transactions for the asset or liability, the prices are not current, or price quotations vary substantially either over time or among market makers (for example, some brokered markets), or in which little information is released publicly (for example, a principal-to-principal market), (3) inputs other than quoted prices that are observable for the asset or liability (for example, interest rates and yield curves observable at commonly quoted intervals, volatilities, prepayment speeds, loss severities, credit risks, and default rates), or (4) inputs that are derived principally from or corroborated by observable market data by correlation or other means (market-corroborated inputs).	
***Fair Value, Inputs, Level 3 [Member]**	This item represents the amount of assets or liabilities, including (financial) instruments that are classified in stockholders' equity, which are measured at fair value on either a recurring or nonrecurring basis and fall within Level 3 of the fair value measurement hierarchy. Level 3 inputs are unobservable inputs for the asset or liability. Unobservable inputs are used to measure fair value to the extent that observable inputs are not available; for example, when there is little, if any, market activity for the asset or liability at the measurement date.	820-10-50-2(a) through (b)

Standard Label†	Definition	Codification Reference
***Fair Value, Liabilities Measured on Recurring Basis, Financial Statement Captions [Line Items]**	This element represents certain statement of financial position liability captions, which represent a class of liabilities, or that may include an individual liability, measured at fair value on a recurring basis.	820-10-50-2(a) through (b)
Fair Value, Liabilities Measured on Recurring Basis, Long-term Debt	This element represents a certain statement of financial position asset caption, which represents a class of liabilities, or that may include an individual liability, measured at fair value on a recurring basis.	820-10-50-2(a) through (b)
Fair Value, Liabilities Measured on Recurring Basis, Derivatives-Interest Rate Contracts	This element represents a certain statement of financial position asset caption, which represents a class of liabilities, or that may include an individual liability, measured at fair value on a recurring basis.	820-10-50-2(a) through (b)
Fair Value, Liabilities Measured on Recurring Basis, Derivatives-Foreign Exchange Contracts	This element represents a certain statement of financial position asset caption, which represents a class of liabilities, or that may include an individual liability, measured at fair value on a recurring basis.	820-10-50-2(a) through (b)

Exhibit C

Methodology

RMBS Insight: U.S. Residential Mortgage-Backed Securities Loss Model and Rating Methodology

JANUARY 2012

DBRS

Insight beyond the rating.

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RMBS Insight: U.S. Residential Mortgage-Backed Securities Loss Model and Rating Methodology

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Introduction

RMBS INSIGHT: THE RESIDENTIAL LOSS MODEL

DBRS introduces RMBS Insight, its new residential loss model that estimates loan-level default probability, loss severity and expected loss for a pool of mortgage loans. RMBS Insight evaluates mortgage pools on a loan-level basis and provides various risk reports of the entire pool or segments thereof. The sum of the loss estimates from each mortgage provides the estimate of losses for a pool of loans.

As detailed in Appendix 1 and Appendix 2 of this report, the RMBS Insight model also incorporates results from qualitative reviews on operational risk, third-party due diligence and representations and warranties, which are integral parts of the DBRS rating methodology. Any transaction-specific assumptions that deviate from this methodology will be detailed in the related rating reports and/or press releases.

UNIQUE ASPECTS OF RMBS INSIGHT

Comprehensive Coverage

RMBS Insight consists of multiple sub-modules, or models, which cover the rating analytics of a variety of asset types that include newly-originated and seasoned pools, liquidating trust (of non-performing loans or NPLs), Federal Housing Administration (FHA) and Veterans Affairs (VA) securitizations, (interest rate) swap termination payments, as well as re-securitizations of real estate mortgage investment conduits (ReREMICs).

Since there are commonalities in analyzing all of these asset types, this methodology generally does not have a separate section for each product except for where the analytics differ. For example, the default and loss severity analysis of NPLs, swap termination payments and ReREMICs all conform to that of seasoned loans, with the exception of the cash flow treatment for NPLs and swap termination payments. Similarly, as a loan migrates from new to seasoned, the same origination attributes still matter and will be analyzed in conjunction with the seasoned characteristics. However, their impact on the default probability diminishes (on a sliding scale) as the loan ages or becomes more delinquent. By the time a seasoned loan becomes 90+ days delinquent, the origination attributes are of secondary importance.

Consideration of Regional Economic Data

The experience of the last decade has made it apparent that it is not credible to consider loan performance without factoring in house prices and unemployment rates. In our dataset, DBRS has analyzed a number of regional economic factors and their effect on actual loan performance on a Metropolitan Statistical Area (MSA) level. The following factors are incorporated into RMBS Insight at an MSA level:

1. Growth rate in civilian labor force.
2. Per-capita income.
3. Unemployment rate.
4. House price index.

User-Input Assumptions and Variables

Macroeconomic conditions, prepayment speeds and liquidation timelines change with time, servicers and asset pools. DBRS has analyzed these variables and incorporated their impact to loan performance into RMBS Insight.

RMBS Insight provides users with the option to forecast quantities of the variables listed below. In this way, the model is ideally set up for scenario analysis. These assumptions are based on actual observations and industry forecasts, or when DBRS deems that additional stresses are warranted.

1. Future changes in unemployment rates.
2. Future changes in house prices (in addition to the DBRS baseline forecast).

3. Voluntary prepayment rate (CPR).
4. Future changes in liquidation timelines.
5. Future changes in months in real estate-owned (REO) properties.
6. Roll rates from 180 Days delinquency to default.

Rating Category Stress Algorithm – An Asset Correlation and Simulation Approach

Rating category stress levels are predicated on models of joint loan behavior, both default and recovery. The parameters of these models are estimated from historical performance data. Working up from the loan-level produces results that are sensitive to the nature of the pool (or portfolio) being analyzed. The distributions of expected default, loan balance, and property location will all impact the rating stress levels. The stress levels themselves are determined so that the probability of exceeding the level is less than a target value, or confidence interval, as established by the DBRS published idealized default table in Appendix 6.

Because of the complexity of the relationships, a simulation approach is taken to determining the portfolio-level distributions of default and recovery. The simulation approach enables the resulting stress levels to fully realize the dependencies that have been modeled.

KEY ENHANCEMENTS FROM PRE-CRISIS

Effect of FICO

Although FICO score is still a key risk factor, the effect of FICO has lessened for recent originations and therefore the reliance on FICO in the model is reduced.

Incorporation of Home Prices

Following the most recent credit crisis, it is clear that it is impossible to ignore the effect of home prices on pool performance. RMBS Insight incorporates home prices in the following manners:

1. The default model incorporates updated values of the owner's equity in the property.
2. The severity model incorporates updated estimates of property value.
3. Ratings levels are derived, in part, by the application of additional market value declines (MVD) to the models.

Shrinkage Factor (or Deal Adjustment)

DBRS introduces the shrinkage factor in its RMBS Insight Model. In our model validation, DBRS noticed that "good" loans (loans with good collateral attributes) in a subprime pool tended to perform worse than if the same loans were included in a prime pool. The worse performance is suspected to at least be partially driven by the assignment process (of these loans into a subprime pool) which may be a reflection of looser underwriting standards. The opposite is also true. When a "bad" loan showed up in a prime pool, it tended to exhibit better performance than if it was included in a subprime pool. The loan may represent an "exception" to the underwriting process that underwent additional scrutiny.

Applying a shrinkage factor in transactions pulls each loan closer to the average. A "good" loan in a subprime deal may not deserve the credit it would otherwise have received. Conversely, a "bad" loan in a prime deal may not be as bad as its collateral attributes have suggested.

Concentration Risk in Loan Size and Geography

The risk presented by concentrations is that of an increased chance of loss exceeding the expected level rather than an increase in the expected level of loss. As such, the effect of concentration risk appears in the BB to AAA rating scenarios and not the B level estimates. Concentration is measured by a Herfindahl index calculated on both a geographic and loan-size basis. The level of asset correlation is determined by the levels of concentration and credit quality. The asset correlation is an important factor in the determination of rating levels.

Small Pools

For securitizations consisting of fewer than 300 loans, RMBS Insight incorporates a small pool adjustment. Small pools are typically more sensitive to certain large loans incurring losses and therefore may exhibit a risk in excess of the model estimate. Small pool adjustments vary by loan count and rating category.

Dynamic Cash Flow Assumptions

The complexity of the capital structures in RMBS transactions requires testing various combinations of cash flow stresses to properly analyze a bond. DBRS incorporates a dynamic cash flow analysis in our rating process. A baseline of multiple prepayment scenarios, loss timing curves and interest rate stresses are generally applied to test the resilience of a bond. An appropriate rating is one that can withstand the combination of DBRS-modeled cash flow stresses without the rated class incurring any interest shortfalls or principal writedowns. DBRS generally runs 40 scenarios in each rating category to test the sensitivity of the rated securities to various cash flow stresses.

These enhancements are discussed in detail in later sections.

GENERAL FINDINGS

In analyzing the data and developing RMBS Insight, there are a number of general findings that are of note. These observations are multivariate in nature. That is, they hold true even after adjusting for other risk factors.

- The three most important risk factors are:
    1. FICO score
    2. Current loan-to-value (LTV) and Current Combined LTV and
    3. Future equity in the home – forecasted based on a two-year horizon
    4. The effect of FICO scores has lessened for recent originations.
- Condos, second homes and investor properties have increased in risk for recent originations.
- Unemployment is an important risk factor.

MODEL VALIDATION

Upon the completion of RMBS Insight, DBRS also conducted a validation of the model results by comparing them against actual historical performance. The validation is done for both probability of default and loss severity, and the results are detailed in Appendix 4 of this methodology.

Modeling Methodology

DATA

RMBS Insight consists of multiple sub-modules, or models that are built using statistical methods. The details are important with such modeling. The purpose of this section is to enumerate the key details of the methodology.

The following data sources are used to build and validate the RMBS Insight models:

- MBS Data LLC database of securitized loans.
- Regional economic data from the St. Louis Federal Reserve FRED II database.
- Case-Shiller home price indices.

The dataset covers the period between 2000 and 2010. The bulk of originations occurred in the middle of this period. There is loan performance data subsequent to 2007, but few originations. The period covers a wide range of economic conditions. It is well suited to indentifying the effects of house prices and unemployment on default and loss rates.

The MBS Data LLC dataset contains approximately 23 million origination records and 760 million historical remittance records. It is neither practical nor necessary to use all these loans to build the models. Instead, a sample is taken when building each of the statistical models. The sampling method for each model is detailed in later sections, starting from "Sampling" in "Probability of Default".

OVERVIEW

As part of its rating methodology for U.S. RMBS, DBRS analyzes mortgage probability of default by examining the following components:

1. Borrower characteristics and credit risk.
2. Mortgage loan characteristics.
3. Mortgaged property characteristics.
4. Regional economic characteristics: both in the past and forward-looking.

If a loan is seasoned (aged six months or more), then additional characteristics are considered:

5. Current pay status (delinquency, bankruptcy, foreclosure).
6. Payment history.
7. Loan modifications.
8. Payment shock.
9. Loan Age.

The relative weights of these characteristics are determined simultaneously by fitting the model to loan-level data via statistical techniques. The exact effect of changes in these characteristics on the probability of default depends on the values of the other characteristics. In addition, the effect of changes in the characteristics is generally non-linear. For example, the effect on default probability of loan-to-value (LTV) moving from 80% to 85% is not the same as LTV moving from 90% to 95%.

For a seasoned loan, the origination attributes still matter and will be analyzed in conjunction with the seasoned characteristics listed above. However, their impact on the default probability diminishes as the loan ages or becomes more delinquent. By the time a seasoned loan becomes 90+ days delinquent, the origination attributes are of secondary importance.

Furthermore, seasoned loans, depending on the origination vintage, may represent lax underwriting processes, weak policies and controls and inflated appraisals. Some of these risks are manifested in deal performance over time, and are therefore captured through the seasoned characteristics by the model. Additional haircuts on appraisals and slower prepayment speeds may be warranted to address these risks on seasoned loans.

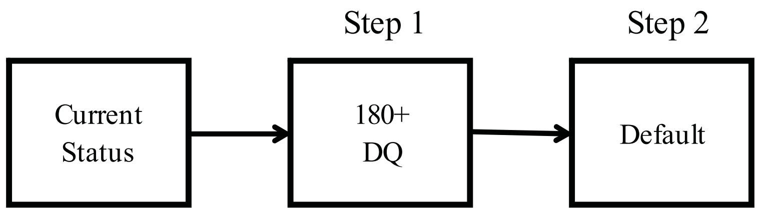
We will discuss, in detail, these characteristics and their interactions in later sections.

MODEL STRUCTURE

Conceptual Default Process

A conceptual map of the default process, as shown as Figure 1, is used to inform the model structure.

Figure 1. Conceptual Default Process



This is a simplified figure that views default as a two-step process. The first step in the process occurs when a loan moves from current to 180 days delinquent. The second step happens when a loan moves into default. Default in this context means "charged off" and removed from the trust. At default, the loss severity is known and final losses are determined. A seasoned loan drops into the process based on its current status. For example, a loan that is 210 days delinquent starts at the second step in Figure 1.

A value of 180 days delinquent is used for the first move in Figure 1. There are a number of alternatives such as:

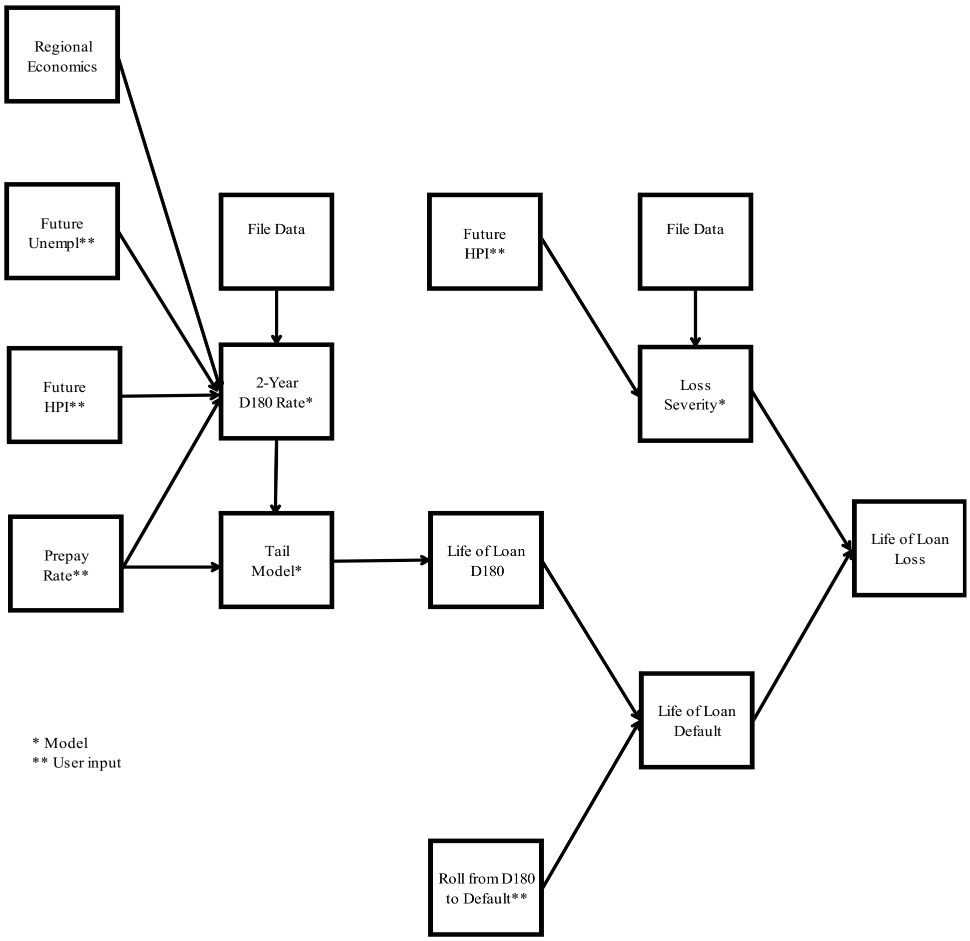
1. The loan enters foreclosure,
2. A lower delinquency value,
3. Actual default – so Figure 1 would become a one-step process.

The value of 180 days is a practical one. In terms of foreclosure, even in normal times, there is a range of practice among servicers that creates noise unrelated to borrower behavior. In recent history, a group of loans had developed serious delinquencies but are not in foreclosure. These would look as if they had not taken the first step, when they are actually at a high risk of default. Alternatively, to the extent that foreclosure starts at a lower delinquency rate, there can be a significant probability of cure that would need to be considered. Finally, using the actual default causes unneeded difficulties in modeling. The time frame to default can be long and is highly variable. The step to 180 days delinquent occurs in a rather stable fashion. Waiting for the movement from 180 days delinquent to default adds little but time.

Using Figure 1 as a mental model of the default process, a number of models and user-input assumptions are assembled to produce the model structure. The model structure is shown in Figure 2.

Default Model Structure

Figure 2. Default Model Structure



The structure here appears rather complex. The complexity of the modeling structure in Figure 2 is driven by two factors:

1. It shows the inputs required by the model and
2. There are a number of distinct models required to implement the process outlined in Figure 1.

In part, the complexity of the modeling structure is driven by the need to produce a life-of-loan forecast. It is not wise to target a life-of-loan 180-day delinquency value directly in modeling for two reasons:

1. It takes too long. One would have to wait for entire cohorts to work through their lifecycle.
2. The expected time a loan is on the books depends on other factors, such as the prepayment rate, which vary over time. The default rate in slow-prepay eras is higher, all else being equal, simply because loans are at risk for a longer period. It is important that this factor be explicitly built into the structure.

Instead, the life-of-loan 180-day delinquency rate is backed into. The basic concept is to produce a monthly, conditional 180-day delinquency rate. This is just like a conditional default rate (CDR) but where one defines ‘default’ to be 180-days delinquent. When combined with a prepayment assumption, the life-of-loan unconditional 180-day delinquency rate can be calculated. This value gives the probability a loan will become 180 days delinquent at some point during its life.

Derivation of Life-of-Loan Default Rate – The Delinquency Score Model and Tail Model

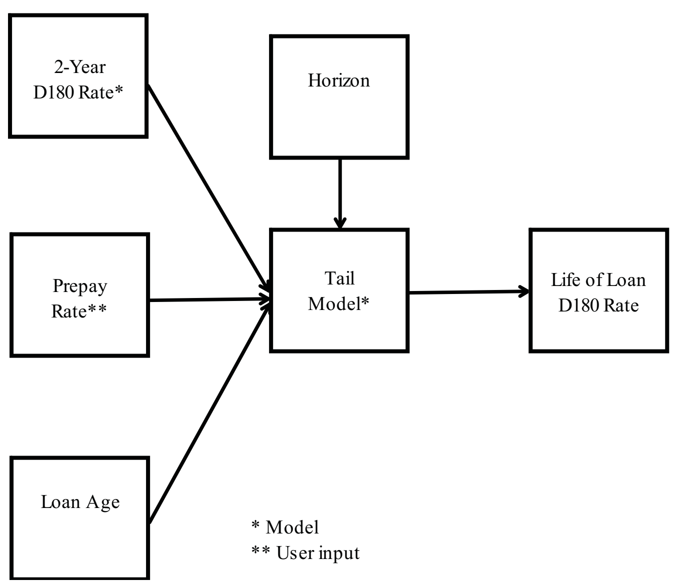
Two models combine to produce the monthly, conditional 180-day delinquency rate. The two models are:

1. The 2-Year D180 Rate Model (referred to as the Delinquency Score). This model estimates the probability a loan becomes 180 days delinquent in the first two years of the forecast.
2. The tail model. This model estimates, month by month, the 180-day delinquency rate for months 25 and on.

The heavy analytics are done by the 2-Year D180 Rate Model (Delinquency Score). Here is where the detailed modeling is done. The output of this model is an estimate of the probability the loan becomes 180 days delinquent sometime in the next two years. This model 'sets the course' for future performance. The tail model takes this level, along with loan age and the horizon (month into the forecast) and produces the monthly incidence rate for the remaining life of the loan.

Figure 3 displays graphically how these models work together to produce a life-of-loan 180-day delinquency rate.

Figure 3. Producing a life-of-loan 180-day delinquency rate



There are a number of model structures and techniques that could have been used to produce a monthly conditional 180-day delinquency rate. Conditional logistic models and proportional hazard models are two common ones. The 2-Year D180 rate (Delinquency Score) model uses a robust, well-tried technology. The model is easy to implement, track and validate. During the first two years, borrower defaults are most dependent upon the loan characteristics at the point of forecast. Afterwards, the impact of loan risk attributes diminishes, and defaults are more influenced by macroeconomic variables. On the contrary, periods shorter than two years offer less time for serious delinquency to occur. The technology behind the 2-Year D180 model is well-known to any modeler within the consumer finance industry.

From Life-of-loan 180-day Delinquency Rate to Ultimate Default

Once the life-of-loan, 180-day delinquency rate has been estimated, it is time to move to the second step of the process outlined in Figure 1: moving the loan from 180 days to ultimate default and liquidation. This step is straight-forward. A user-input roll rate is applied to the life-of-loan 180-day delinquency rate. Again, one of the values of using 180-day delinquency rate in the first step is that there is not much left for modeling at this stage. At this point, the life-of-loan default rate has been produced.

Loss Severity
A severity must be applied to the default rate to arrive at a loss rate. For second liens, DBRS applies a severity of 100% plus six months of interest, if advanced by the servicer, calculated at the note rate. For first liens, the severity is calculated as follows:

1. A recovery value is estimated from the statistical recovery model.
2. Interest advancing (if desired) is subtracted from the recovery.
3. Loss is calculated as the shortfall of recovery to loan balance outstanding.

The next sections consider the default and loss severity methodologies in detail.

Probability of Default

DELINQUENCY SCORE

Model Specification
The Delinquency Score, or the 2-Year D180 Rate Model, is similar in spirit to the kinds of scores one sees in consumer credit. The delinquency score is series of statistical models that are built on loan-level data. For each loan in the data set, there is an "as-of" date. This is the date of the forecast, everything after this date is the "future".

Each loan in the modeling dataset consists of the following data:

1. Explanatory variables that are known – both at model build and when running a forecast – at the as-of date. These are values such as current delinquency status, FICO and LTV.
2. Explanatory variables that are known at model build but will be unknown when running a forecast. Future house prices and unemployment rates are examples of such variables.

The outcome for the loan, coded as a 1 – the loan became 180 days delinquent in the 2 years after the as-of date or a 0 – the loan did not.

The statistical method (in this case, logistic regression), finds the mapping from the first two that best explains the third. In practice, one will not know the values in (2). Instead, forecasts or scenarios for these values are used.

Explanatory Variables

Table 1 gives the explanatory variables in the models, definitions and their types.

Table 1. Variable Types in the Delinquency Score

Explanatory Variable	Type	Description
Bankrupt	Categorical	Borrower is in bankruptcy
In Foreclosure	Categorical	Property is being foreclosed
Censor Age	Categorical	Month at which future 24 months is censored
Equity in 24 Months	NonLinear	Equity in the property 24 months after the as-of date
Product Variables	Categorical	Product type, IO indicator variables, etc.
FICO	Linear	FICO at origination
Unemployment Rate	Linear (Capped)	Unemployment rate at the as-of date
Change in Unemployment Rate	Nonlinear	Change in unemployment rate: 24 months from the as-of date
# Times 30 days DQ in last 36 Months	Nonlinear	Using MBA DQ definition
# Times 60 days DQ in last 36 Months	Nonlinear	Using MBA DQ definition
# Times 90+ days DQ in last 36 Months	Nonlinear	Using MBA DQ definition
DQ Score at Origination	Nonlinear	Output of delinquency score at origination (used for seasoned loans)
Loan Balance	Nonlinear	Current balance
Loan Age	Nonlinear	Loan age at as-of date (from first payment date)
Loan Modification	Categorical	Recapitalization or rate reduction
Payment Shock	Categorical	Teaser period end, or IO/Negam period ends, etc.
Property Type	Categorical	Single-family, multi-family, condo, townhouse, PUD, etc.
LTV/Combined LTV	NonLinear	LTV/CLTV at the as-of date
UPB to Income	Linear (Capped)	Ratio of balance to per capita income at MSA-level
Occupancy	Categorical	Primary, second or investor properties
Loan Purpose	Categorical	Purchase or refinance
State	Categorical	Property state
Growth in Civilian Labor Force	NonLinear	Trailing 1-year growth rate (MSA-level)
Documentation	Categorical	Full, limited, reduced, etc.
Vintage	Categorical	Year of first payment

There are two potential types of explanatory variables in the models: categorical and continuous. An example of a categorical variable is documentation type. It has different categories such as "full", "stated", and "reduced". Continuous variables refer to characteristics such as FICO or LTV, where the values are continuous within a defined range.

Sampling

The MBS Data LLC dataset contains information on approximately 23 million loans. It is neither practical nor necessary to use all of these loans to build a model. Instead, a sample is taken. In order to make the most effective use of the dataset, the sampling is stratified. The idea is to even out the sample on certain variables so that the model-build sample is not dominated by specific values of these variables. For instance, in the database approximately 10% of the loans are 2-year hybrid adjustable rate mortgages (ARM) whereas 7-year hybrid ARMs are about 0.25% of loans. Evening out the sample improves the ability to understand 7-year hybrids without impeding understanding the 2-year hybrids. A similar method is applied to the property states so that the dataset is not dominated by large states such as California or Florida.

The sample is stratified on these characteristics:

1. Loan Age.
2. Property State.
3. Loan Product.
4. Vintage.

The sample sizes in the modeling datasets are:

1. 234,000 for fixed first-liens at origination.
2. 212,000 for ARM first-liens at origination.

3. 234,000 for second-liens at origination.
4. 859,000 loans that are seasoned and not delinquent.
5. 126,000 loans that are seasoned and 30-60 days delinquent.
6. 41,000 loans that are seasoned and 90-150 days delinquent.

Segmentation and Interactions

The delinquency score consists of six separate models. The segmentation used is:

- Forecast: Loan Origination
    1. First-lien fixed-rate loans.
    2. First-lien ARM loans.
    3. Second-lien closed-end loans.
- Forecast: Seasoned Loan
    4. The loan is not delinquent.
    5. The loan is 30-60 days delinquent.
    6. The loan is 90-150 days delinquent.

The primary segmentation is whether the forecast is for a newly originated loan or a seasoned loan. For newly originated loans, the secondary segmentation is along product types. The fact that second liens would react differently to the explanatory variables is to be expected. Similarly between fixed-rate loans and ARM loans, there is a natural self-selection into the products. A fixed-rate first lien does not offer the features that lower payments for those individuals who, for whatever reason, are looking to minimize initial payments or maximize loan amount. For seasoned loans, the secondary segmentation is along current delinquency status. The greater the delinquency, the fewer explanatory factors enter the model and the lower the weight applied to origination variables (e.g. FICO at origination, documentation type).

Another consideration in specifying the models is interactions. It is possible, for example, that the contribution to risk of a loan having "stated" documentation type depends on whether the borrower credit is subprime or not. In building these models, DBRS looked for interactions. If one finds that the effect of lots of the variables change with the levels of a categorical variable, it may make sense to build separate models for the different categories.

Beyond the segmentation, the Delinquency Score models do incorporate a number of interactions. Key interactions are:

- FICO by Vintage
    The slope of FICO has flattened over time. That is, the change in risk for a change in FICO has declined.
- Property type by Vintage
    Condos have increased in risk for more recent originations.
- Occupancy by Vintage
    Second homes and investor properties have increased in risk in recent originations.
- Origination Delinquency Score by Loan Age
    The origination delinquency score is an explanatory factor in the seasoned-loan delinquency score. The importance of the score fades as the loan ages.
- # of times 30 (60, and 90+) days delinquent in last 36 months by Age
    Not surprisingly, the contribution to risk of 3 times 30 days delinquent depends on whether the loan is 6 months old or 60 months old.

Effects of Explanatory Variables

Given the nature of the models, the most direct way to measure the effect of a variable is by examining the *odds ratio*. Take, for example, documentation type. The odds ratio comparing documentation type FULL to REDUCED is:

P[FULL]/(1-P[FULL]) / P[REDUCED]/(1-P[REDUCED])

Here, P[FULL] is the probability of a full documentation type loan becoming 180 days delinquent in the 2-year time horizon. For logistic regression, it turns out that the odds ratio constructed on the values of one explanatory variable does not depend on the values of any of the other explanatory variables. The odds ratio can be used to get a sense of the importance of the characteristics in the models. For categorical variables (e.g. documentation type, property type), the odds ratio is calculated for each value relative to a base value. For example, condo vs. single family, PUD vs. single family, multi-family vs. single family for property types. For continuous variables, we can calculate the odds ratio of a specific change in the variable (e.g. 50 point FICO movement).

Origination Model Factors

Table 2 gives the odds ratios for the three models that forecast from origination. Note that an odds ratio greater than 1 indicates increased risk.

Scanning Table 2 for the largest and smallest values, one sees generally that FICO, LTV, and future equity are the three largest effects. Beyond these, specific values of variables present themselves as particularly good or bad. Low levels of documentation, interest only (IO), negatively amortizing (negam) loans, two-year hybrid ARMs, manufactured homes (MH), and investor properties present particularly high risk. Within the universe of ARM first-liens, hybrid ARMs with seven years or longer teaser periods present substantially less risk relative to shorter term ARMs.

Table 2. Origination Model Factors

Factor	Odds Ratio ARM, 1st Lien	Fixed, 1st Lien	CES 2nd Lien
FICO	2.5 (50 point decrease)	2.0 (50 point decrease)	5.9 (50 point decrease)
Origination LTV/CLTV	1.7 (90%->130%)	4.7 (90%->130%)	4.8 (90%->125%)
Future equity (2 years from as-of date)	1.7 ($45k to -$12k)	2 ($45k to -$12k)	1.25 ($45k to -$12k)
Product type			
Negam (relative to Amortizing ARM of same teaser)	2.5		
IO (relative to Amortizing ARM of same teaser)	1.5	1.6	
Balloon (relative to 1 month ARM)	1.1	1	
2-Year teaser (relative to 5/1 ARM)	2.1		
7-Year teaser (relative to 5/1 ARM)	0.6		
10-Year teaser (relative to 5/1 ARM)	0.5		
Documentation Type (Base = Full)			
Limited	1.3	1.3	1.7
Low/Easy	1.6	1.7	1.9
Reduced	1.8	1.8	3
Stated	2	2	1.8
Origination balance	1.7 ($150k->$350k)	1.6 ($150k->$350k)	0.8 ($40k->$80k)
Property type (Base = SFD)			
PUD	1	1	1
Condo	1.1	1.1	1.1
Multifamily	1.4	1.4	1.4
Co-op	1.2	1.2	
Townhouse	1	1	
Manufactured Homes	2	2	2
Occupancy (Base = primary residence)			
Second Home	1.2	1.2	1.8
Investor property	1.7	1.8	2.2
Loan purpose (Purchase vs. Not)	1.3	1.2	1.6
Growth rate in civilian labor force (MSA-Level)	0.9 (0%->3%)	0.9 (0%->3%)	
UPB to per capita income (MSA-level)	1.2 (move from 8x to 16x)	1.2 (move from 8x to 16x)	
Unemployment rate (MSA-level)	1.4 (5 point move)	1.2 (5 point move)	
Property State	1.6	1.6	1.8
Loan Vintage	1.6	2.1	1.5
Amortization term (40 Year vs. Not)	1.1	1.5	

The odds ratios indicate increased risk of certain attributes relative to the base characteristics. It is of note that they should be reviewed only within their respective columns (or asset types). Reading across columns will not produce meaningful comparisons. In addition, the odds ratio for continuous variables can only be shown here based on a select range. Ratios outside of these ranges will differ from what has been exhibited in the tables. For example, the effect on default probability of LTV moving from 60% to 100% is not the same as LTV moving from 90% to 130%.

On a small number of variables, DBRS revised the odds ratio (i.e. increased the penalty factor) from what was directly derived from the regression analysis. These variables generally represent truly adverse characteristics such as MH, IOs and negatively amortizing loans. It was done for two reasons. The population of MH loans in the whole dataset was somewhat limited. In the case of mortgages with payment shocks, the loans either haven't reached its payment reset date or the interest rate environment has been too benign for the full effect of payment shock to be seen.

Seasoned Model Factors

Table 3 gives the odds ratios for the seasoned loan models.

Table 3. Seasoned Model Factors

Factor	Current	Odds Ratio 30-60 Days DQ	90-150 Days DQ
Delinquency Status		2.2 (60 vs. 30)	2.1 (120 vs. 90)
			5.9 (150 vs. 90)
# times 30 Days*	1.3 (0 vs. 1)	1.1 (0 vs. 1)	
# times 60 Days*	1.8 (0 vs. 1)	1.3	
# times 90 Days*	2.2 (0 vs. 1)	1.4	1 (0 vs. 1)
Origination Score*	1.1 (2% to 4%)	1.1	
Future Equity (2-year from as-of-date)	1.4 ($57k -> $3k)	1.4 ($44k -> $0)	1.4 ($37k -> -$9k)
Future Change in Unemployment	1.5 (0% to 5%)	1.5 (-0.5% to 4.9%)	1.6 (-0.3%->5.2%)
Current UPB	1.2 ($100k->$325k)	1.3 ($50k->$190k)	1.3 ($150k->$350k)
IO flag	1.6	1.3	1.5
ARM flag	1.7	1.3	1.2
Balloon flag	1.9	1.4	1.3
Second lien flag	1.7	1.6	1.2
Bankruptcy flag	1.3	1.1	1.1
Foreclosure flag			1.3
Payment shock flag (Base=No payment shock event)			
Teaser period ends	1.3	1.1	
IO/Negam period ends	1.7	1.5	
Modification flag** (Base=No modification)			
Re-capitalization	1.3	1.5	
Rate reduction	1.2	1.2	
Loan age	0.5 (18->48 months)	0.4 (18->48 months)	
FICO 680 to 730***	0.7		
Multi-family vs. Single Family***	1.4		

There are several interesting things to note about the seasoned models. Firstly, the more delinquent the loan is, the fewer variables that are useful in explaining the behavior of the loan. Secondly, the majority of characteristics that don't change with loan seasoning (e.g. documentation type, occupancy) enter through the loan origination model. However, their impact on default probability diminishes as the loan ages or becomes more delinquent. By the time a seasoned loan is 90+ days delinquent, the origination score does not matter.

Modifications

For modified loans, DBRS generally needs at least two years of proven payment histories, post modification, to even consider their current status. For loans that have shorter than two years of history, even if they have remained performing, DBRS does not consider them to have demonstrated a consistently improved payment pattern, and therefore, their delinquency status will be reverted to their pre-modification status (unless their current delinquency status is worse than the pre-modification status, then their current delinquency will be used).

For modified loans that have been performing for two years or longer, a penalty is still warranted. In our analysis, we noticed increased risk of a modified loan relative to a loan that has not been modified, and such risk is more pronounced for re-capitalization (1.3 to 1.5x) than for rate reduction modifications (1.2x). Of course, existing performance data post modification has been limited so far. As servicers accumulate more modification data, DBRS will consider specific servicer's modification experience and performance data when evaluating pools, and note such considerations in the related transaction reports.

For ease of exposition, Tables 2 and Table 3 omit the interactions in the models.

THE TAIL MODEL

Once the probability of a loan becoming 180 days delinquent in the first two years of the forecast has been estimated, this must be projected into a life-of-loan value. The tail model is a key component of that calculation, as shown in Figure 3 earlier. Like all the models that make up the loss model, it is built using statistical techniques on the data from MBSData LLC.

The output of the tail model is a month-by-month *conditional* probability that the loan becomes 180 days delinquent. The model is conditional on two events:

1. The loan has not prepaid.
2. The loan has not already become 180 days delinquent. This is to avoid double counting. It treats being 180 days delinquent as an 'absorbing' state like default – a loan can enter only once.

The tail model takes the following inputs:

1. The delinquency score.
2. The age of the loan at the start of the forecast.
3. The age of the loan month by month.

The tail model was built using standard regression techniques applied to randomly selected pools of loans constructed to have varying levels of 180-day delinquent behavior. Approximately 63,000 monthly observations were produced. For each randomly assembled pool, the following characteristics are calculated:

1. Trailing 2-year 180-day delinquency rate of the pool (Delinquency Score).
2. The starting age of the pool.
3. The current age of the pool month by month.
4. The conditional 180-day delinquency rate month by month. This is the dependent variable in the regression.

Figure 4. Tail Model Shapes (D180 Shapes, Start Age = 24 Months)

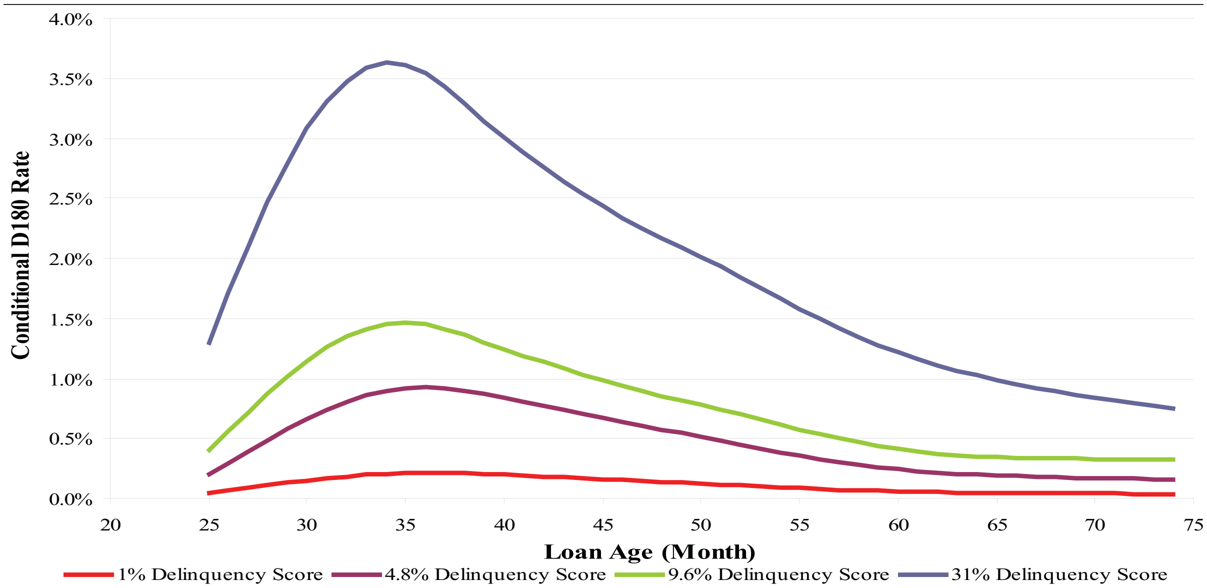


Figure 4 above shows the output of the tail model for a selection of delinquency scores for a pool that is scored from origination. Since the delinquency score gives the performance expectation for the first 24 months, the graphs start from month 25. Within each graph, the curves are plotted for delinquency scores of 31%, 9.6%, 4.8% and 1%. Firstly, you can see that Figure 4 shows a definite peak. This is because there is an age effect in the model.

While the tail model is a key component in producing the default forecast for years three and after, the calculation is more complex since this curve is conditional. To produce a default forecast for each month requires the expected balance present at that month. The expected balance present incorporates the following calculations:

1. The loan has not previously been 180 days delinquent.
2. The loan has not voluntarily prepaid.
3. The scheduled balance.

By default, the tail model assumes 0% voluntary CPR over the forecast horizon when calculating the *conditional* probability that the loan becomes 180 days delinquent. Depending on the product type and actual prepayment speeds of a securitized pool (prime loans typically prepay faster than subprime loans), the model allows users to input more realistic CPRs that will naturally reduce default occurrence for the asset pool.

Loss Severity

THE LOSS SEVERITY CONCEPT

The model described in this section applies only to first liens. For second liens, DBRS applies a severity of 100% plus six months of interest, if advanced by the servicer, calculated at the note rate. Severity is calculated indirectly via a recovery amount, which is the amount available to repay the loan – that is, it has netted out all the related costs at the time of liquidation.

Loss severity is calculated as follows:

1. A recovery value is estimated from the statistical recovery model.
2. Interest advancing (if desired) is subtracted from the recovery.
3. Loss is calculated as the shortfall of recovery to loan balance outstanding.

Just as with the default models, the loss severity model is constructed using statistical methods. Loan-level data on recoveries is joined to characteristics of the property. In the MBSData universe, there are over 1 million loans that have gone to loss. The modeling dataset consists of approximately 102,000 loans and an equal number held out for validation. Loans were stratified by liquidation year. The quantity that is estimated is the percentage of the updated appraisal that is recovered. The focus of the analysis is recovery from the sale of the house because this is the fundamental driver of losses.

THE RECOVERY MODEL

Forecasting the Updated Property Value at Liquidation

As a starting point, DBRS first needs current appraisals at the as-of date, which are the origination appraisals for new loans, and the current appraisals for seasoned loans[1]. This value is also known as *as-of date appraisal*.

In order to derive a recovery amount, one must first estimate an *updated property value at liquidation*. The projection is based on the following factors:

1. The number of months each subject loan takes to migrate through the delinquency, foreclosure and REO timeline. The length of this period will depend on how delinquent the subject loan is at the as-of-date. The estimation is further explained in the next section titled “Estimating Time to Liquidation”.

2. DBRS home price forecast for this time period on a MSA-level. DBRS developed its own home price forecast model based on a data analytic approach. Using month-by-month Case-Shiller home prices

1. The RMBS Insight Model does have the capability to bring property values current for seasoned loans using Case-Shiller home price indices, but we would generally ask that these values be furnished to DBRS for the purpose of the rating.

to identify and calculate the regional peak-to-trough declines prior to 2000, DBRS selected counties that have experienced a two-year price increase prior to the peak of at least 10%, and a decline of 10% or more following the peak. The model then looks for consistencies in the length and severity of the decline to forecast future price drops from the most recent housing market peak. This model is further detailed in Appendix 3 "Peak-to-Trough Home Price Forecast Model".

3. Market value decline by rating category. DBRS applies a market value decline (MVD), ranging from 28% at AAA to 5% at B, to all rating levels, as detailed in the "Rating Categories" section later on.

From here, the percentage of this updated property value that will be recovered is estimated via the Recovery Percentage statistical model.

Distressed Sale Discount

First, a 30.8% haircut is applied to the updated property value. This haircut is meant to address property sales in a liquidation scenario, which often represent distressed sales and therefore beaten-down prices. The value, one of the terms of the recovery model, has been estimated from past liquidations. In addition, the haircut also includes liquidation costs such as maintenance, repairs, attorney and real estate agent fees, etc.

Further Property Value Adjustment

Once the distressed sale discount is applied, further value adjustments, calculated based on the updated property value, are made based on the following characteristics. These adjustments are generally negative.

1. Expensive and inexpensive properties.
2. Months in REO.
3. Property type.
4. Occupancy.
5. FICO.
6. Months since loan origination.
7. Property State.

These adjustments are made because each of them has a significant impact to the actual recovery percentage. Based on our analysis, each month in REO reduces the recovery amount by 1.8%. Months in REO are a user-specified input, which DBRS assumes to be six months by default in the current real estate environment.

Expensive and inexpensive properties tend to recover less as a percentage of updated property value. Two property types are called out as different: MH and multi-unit, each of which produces lower recoveries. Strictly speaking, the rest of the listed characteristics aren't property characteristics; however, they do impact the recovery value in our dataset. Investor homes and second homes have reduced recovery rates. Homes associated with higher-FICO borrowers have improved recovery rates. Recovery declines with increased time since loan origination. Additionally, a handful of States (OH, IL, PA, MI) had reduced recovery rates.

If mortgage insurance is present, the model will add back the amount of the insurance coverage, subject to a haircut of 33%. The 33% value, on of the terms of the recovery model, has been estimated from past liquidations. To the extent actual rescission rates provided to DBRS are different from the assumed 33%, or when DBRS deems that different stresses are warranted due to mortgage insurance companies' historical rescission experience, this haircut rate can be adjusted.

Table 4 below shows a simplified example of "AAA" and "B" loss severity calculation with assumed characteristics. In this hypothetical example, the projected HPA is assumed to be -7% as estimated by our Peak-to-Trough Forecast Model, actual home price forecast varies by MSA. Also interest advances are not considered for the purpose of this example.

Table 4. Loss Severity Calculation - A Simplified Example*

	"AAA" Loss Severity	"B" Loss Severity
Property Value at Origination	$ 250,000	$ 250,000
Less: Projected HPA = -7%	$ (17,500)	$ (17,500)
Less: MVD by Rating Category ("AAA": 28% / "B": 5%)	$ (65,100)	$ (11,625)
Updated Property Value at Liquidation	**$ 167,400**	**$ 220,875**
Distressed Sale Discount (-30.8%)	$ (51,559)	$ (68,030)
Further Property Value Adjustments		
1) Expensive and inexpensive properties:	$ (7,777)	$ (1,467)
2) Months in REO: Six months	$ (17,075)	$ (22,529)
3) Property type: Single family	$ -	$ -
4) Occupancy: Investor property	$ (15,655)	$ (20,656)
5) FICO: 700	$ 16,405	$ 21,646
6) Months since loan origination: 18 months	$ (7,700)	$ (10,160)
7) Property State: California	$ -	$ -
Property Resale Value	$ 84,038	$ 119,679
Unpaid Principal Balance (UPB)	$ 200,000	$ 200,000
Loss Amount (UPB less Property Resale Value)	$ 115,962	$ 80,321
Loss Severity (Loss Amount / UPB)	**58%**	**40%**

* *Interest advances are not considered for the purpose of this example.*

ESTIMATING TIME TO LIQUIDATION (FOR CALCUATING AN UPDATED PROEPRTY VALUE AT LIQUIDATION)

In order to calculate an *updated property value at liquidation*, the model needs to project how long it takes for liquidation to happen. Liquidation timeline varies for loans in different delinquency status. The closer a loan is to REO, the shorter it takes to be liquidated. DBRS estimates *updated property value at liquidation* as follow:

For loans that are already in REO:
1. Use the user-specified months in REO
2. Bring the *updated appraisal* to that date

For loans that are 180 days delinquent but are not yet in REO:
1. Take the state-by-state timeline to REO, adjusting for current level of delinquency.
2. Add the user-specified months in REO.
3. Bring the *updated appraisal* to that date

For loans that are under 180 days delinquent:
1. Month-by-month, take the monthly estimate of the probability the loan goes D180,
2. Add the state-by-state timeline to REO,
3. Add the user-specified months in REO.
4. Bring the *updated appraisal* to that date

For loans under 180 days delinquent, it is more complex to project a time to liquidation because one does not know when exactly a loan will default. In this case, DBRS projects a liquidation timeline (for the purpose of deriving an updated appraisal) every month based on our estimation of monthly probability of a loan becoming 180 days delinquent, as detailed in the "The Tail Model" section.

STATE-BY-STATE TIMELINE FROM CURRENT TO REO

DBRS used a unique method in estimating the state-by-state timeline. We did not limit the scope of the review to only loans that have reached REO because there is a large inventory of delinquent loans that have not yet done so and as a result, such a calculation would be biased on the low side. Likewise, choosing a static pool that has had sufficient time to fully move to REO would mean using data that is so old that it does not appropriately reflect what is currently happening in the market. Instead, the DBRS method uses the most recent data possible to derive the monthly rate at which loans move to REO and then calculates the average timeline based on those rateThe expected time to REO is calculated from a state-specific hazard curve that is derived from the MBS Data LLC database. The hazard curve gives the conditional probability a loan moves into REO the k^{th} month since it became 180 days delinquent (D180) given it has not done so prior to that month. The most recently available data was used to calculate the probabilities of the hazard curve. For instance, we started within the universe of loans that became D180 in 2010. In this dataset, there is generally sufficient data today to calculate the probability a loan moves to REO in the first six months since the loan becomes 180 days delinquent. There is no data yet today on a D180 loan moving to REO on the 24^{th} month. Hence, we had to expand the universe to loans that became D180 prior to 2010 to fill in the dataset. Once the hazard curve is calculated, the average time a loan takes to move to REO is calculated. Any loans that have not moved to REO by month 43 are flushed out of the pipeline.

All loans that became 180 days delinquent during 2010 are used. When calculating the probability of moving to REO for month *k* since the loan became D180, the number of loans that still have not done so already is found. If this is not at least 1000 loans, loans that became D180 during 2009 are folded into the analysis until at least 1000 loans are available. If there are still not 1000 loans available for the analysis, loans that became D180 during 2008 are added to the dataset. In this way, the need for data is balanced with the desire for the data to be as recent as possible.

Table 5. State-by-State Timeline From Current to REO

State	Months	State	Months	State	Months	State	Months
AL	22	ID	20	MS	25	PA	28
AR	23	IL	26	MT	23	RI	25
AZ	16	IN	24	NC	24	SC	24
CA	22	KS	22	NE	21	TN	24
CO	21	KY	25	NH	24	TX	24
CT	28	LA	28	NJ	30	UT	23
DC	25	MA	27	NM	25	VA	22
DE	29	MD	26	NV	19	VT	27
FL	26	ME	28	NY	32	WA	25
GA	20	MI	16	OH	23	WI	24
HI	26	MN	21	OK	24		
IA	25	MO	19	OR	24	**US***	**24**

** Insufficient data in the States that are missing from this table. The US average assumed for these states.*

Once the D180 to REO timelines are calculated, we added 6 months to the results to capture the period from current to D180. Table 5 gives the resulting number of months from Current to REO by State based on DBRS estimate derived above. The months from Current to REO can be adjusted if actual timelines are extended or reduced, or when DBRS deems that additional stresses are warranted. Such option is available as a user input field.

INTEREST ADVANCING

If the servicer will be advancing interest in a securitization, interest advancing at the note rate will be included in the loss calculation. Unless otherwise specified that the servicer will only be advancing for a certain period of time (for example up to 60 days), the number of months interest is advanced will by default follow the state-by-state timeline from current to REO.

Table 5 above defines the state-level timeline at our "B" base case. DBRS varies these base timelines by rating category. For each rating level higher than a "B", two incremental months will be added to the timeline of the previous rating category.

LOSS SEVERITY FOR FHA LOANS

FHA loans are insured by the Housing and Urban Development (HUD). Their loss severity calculations differ from that of a traditional mortgage, and are analyzed based on the insurance coverage by the HUD. Once a FHA loan defaults, the servicer submits a claim to the HUD for reimbursements. A claim can be reimbursed or denied. DBRS generally assumes a portion of the claims will be denied based on servicer's historical denial rates. If a loan is denied, DBRS treats the loan as if there is no insurance and loss severities will be calculated assuming it is a traditional mortgage.

If Claims Are Paid

If a claim is reimbursed, the FHA insurance typically covers 100% of the outstanding principal balance and a substantial portion of the interest and foreclosure costs. The HUD reimbursements do not cover the following:

1. Interest payments for 60 days.
2. Approximately 1/4th to 1/3rd of the foreclosure expenses depending on the servicer's rating with the HUD, and
3. The difference between the interest accrued at the note rate and the debenture rate during the liquidation process.

DBRS analyzes each of the three categories of proceeds not reimbursed by the HUD, the sum of which equals the loss amount at the "B" base case. Loss amounts are stressed assuming longer FHA timeline and increased claim denial rate for each higher rating category, as detailed below.

1. Interest payments for 60 days at the current note rate of the loan.

2. Approximately 1/4th to 1/3rd of the foreclosure expenses depending on the servicer's rating with the HUD – DBRS usually assumes a 1/3rd of the foreclosure expenses will not be reimbursed because servicer's rating with the HUD may change in the future. Assuming a 1/4th quotient may be underestimating the costs to the extent the servicer rating is downgraded. DBRS uses the same foreclosure (or liquidation) expenses as described in the "Recovery Model" section. Recovery for FHA loans is augmented by 2/3 of a value of fixed costs consistent with that seen in the data.

3. During the period between the loan default to the claim date, the difference between the interest accrued at the mortgage note rate and the interest accrued at the debenture rate, to the extent the mortgage note rate exceeds the debenture rate. A loan is in default if the borrower fails to make a payment and such failure continues for a period of 30 days.

   FHA Timeline (From Loan Default to Claim Date)

   The servicer on the transaction furnishes, to DBRS, the state-level FHA timelines based on FHA loans in its own portfolios[2]. We then apply further delays to these timelines by rating category, as specified in Table 6 below.

2. These servicer-furnished state-level FHA timelines do not necessarily conform to the DBRS state-level timelines.

Table 6. Delays to Servicer Timeline By Rating

Rating Category	Delays to Servicer Timeline (Months)
AAA	16
AA	14
A	12
BBB	10
BB	8
B	6

Debenture Rate

The debenture rate is based on the United States Treasury securities adjusted to a constant maturity of 10 years. For loans originated before January 23, 2004, the debenture rate applicable to a claim is the higher of the rate in effect on i) the date the loan was endorsed for insurance, or ii) the date the commitment to insure the loan was issued. The debenture rate applicable to a claim for loans endorsed for insurance after January 23, 2004 is based on the debenture rate in effect at the month in which the default on the loan occurred.

For loans originated before January 23, 2004, or post January 23, 2004 but have defaulted already, DBRS uses the published debenture rates for the applicable dates. For any performing FHA loans endorsed after January 23, 2004, DBRS stressed debenture rates in accordance with the DBRS methodology on interest rate stresses – Unified Interest Rate Model for U.S. RMBS Transactions. Please refer to the Unified Interest Rate Model for U.S. RMBS Transactions for more detail of the interest rate stresses applied by DBRS.

If Claims Are Denied

HUD can fully deny or curtail FHA claims for different reasons that include missing insurance certificates, excessive damage to properties, title issues, any deviation in practices by the originator or servicer from the program guidelines, late due diligence, late conveyance, late title package, etc.

DBRS reviews the historical claim denial rates for the servicer on the transaction to determine the "B" base case stress. Multiples at the AAA rating level range from 4.0 to 6.0 times the base case denial rates. Such variations in multiples are dependent on the operational assessment of the servicer and a review of third-party due diligence. The latter includes an analysis of servicer's compliance with minimum standards under the FHA guidelines.

Loss severities for a denied loan will be calculated in the same way as a traditional mortgage with comparable loan characteristics.

Combining Claims Paid and Denied

For each FHA loan, DBRS estimates two sets of loss severities assuming a claim is either paid or denied. A final loss severity is calculated giving weights to the denial rate at each rating category. For example, if the loss severity for a loan is estimated at 60% without FHA insurance and 10% with insurance, and the assumed denial rate equals 5% at a "B" base case. Then the final loss severity at B for this FHA loan will be 12.5% (60% x 5% + 10% x 95%).

LOSS SEVERITY FOR VA LOANS

VA loans are insured by the Department of Veteran Affairs (VA). Like FHA loans, their loss severities are also analyzed based on the insurance coverage. The VA insurance covers losses up to certain limits depending on the outstanding balance of the defaulted loan, as indicated in Table 7. The guaranty limits for the VA loans are as follows:

Table 7. VA Guaranty

Loan Amount	VA Guaranty
< $45,000	50% of Loan Amount
$45,001 to $56,250	$22,500
$56,251 to $144,000	40% of Loan Amount
$144,000 to $417,000	25% of Loan Amount
> $417,000	The lesser of a) 25% of the VA county loan limit or b) 25 % of the Loan Amount

Estimating loss severities for VA loans are done in a similar manner as for FHA loans. At the "B" base case, the loss amount equals the proceeds not covered by the VA guaranty, as set forth in Table 7. Increased claim denial rates are assumed for higher rating categories. Finally, DBRS combines the loss severities for claims paid and denied based on the respective denial rate at each rating level.

Shrinkage, Concentration Risk and Small Pools

SHRINKAGE (OR DEAL ADJUSTMENT)

The scoring models incorporate data about the loan, borrower characteristics and economic data. Interestingly, there is an additional piece of information that can be considered. That information is the mean score of the portfolio. Figure 5a shows the actual versus estimated 2-year 180-day delinquency rate for 3,289 deals comprised of 9.9 million loans scored from origination (Origination Score). Figure 5b is the corresponding graph for 3,045 deals comprised of 3.4 million loans scored at 30 months of seasoning (Behavioral Score). Examination of the graphs shows that estimates for deals with high expected 180-day delinquency rates tend to come in under the actual rate. It is also the case that deals with low expected 180 delinquency rates tend to come in over the actual rate. This phenomenon does not represent a general issue with the score as it stands. Figure 6a shows the decile plot of actual versus estimated 180-day delinquency rate of the origination score constructed at the loan level for these deals. Figure 6b shows the same plot for the behavior score. Both graphs are satisfactory. Rather, it seems that the action of assigning loans to deals produces the effect. That is, other than loan characteristics, there must be information in the assignment process that drives the performance differentials.

Simply put, "good" loans (loans with good collateral attributes) in a subprime pool tended to perform worse than if the same loans were included in a prime pool. The worse performance is suspected to at least be partially driven by the assignment process (of these loans into a subprime pool) which may be a reflection of looser underwriting standards. The opposite is also true. When a "bad" loan showed up in a prime pool, it tended to exhibit better performance than if it was included in a subprime pool. The loan may represent an "exception" to the underwriting process that underwent additional scrutiny.

Figure 5a. Origination Score

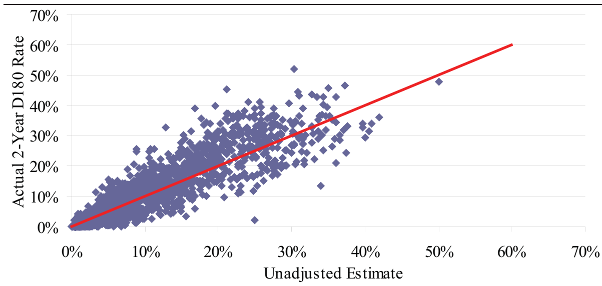


Figure 5b. Behavioral Score

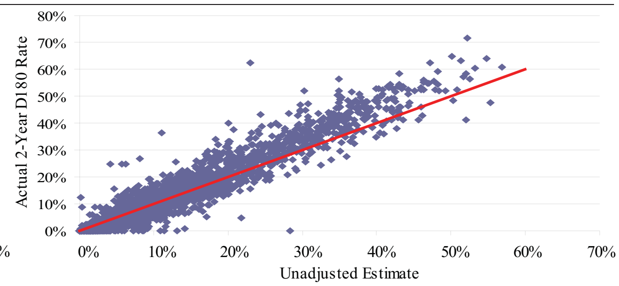


Figure 6a. Decile Plot of Origination Score

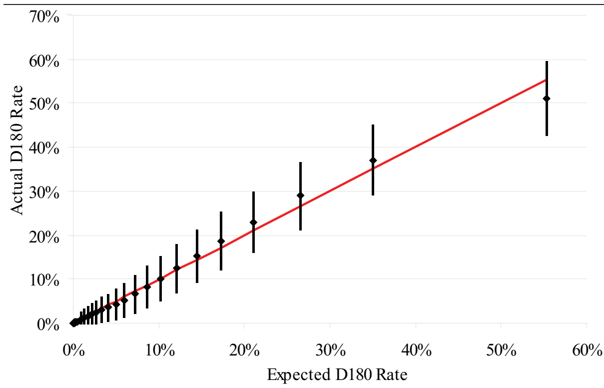
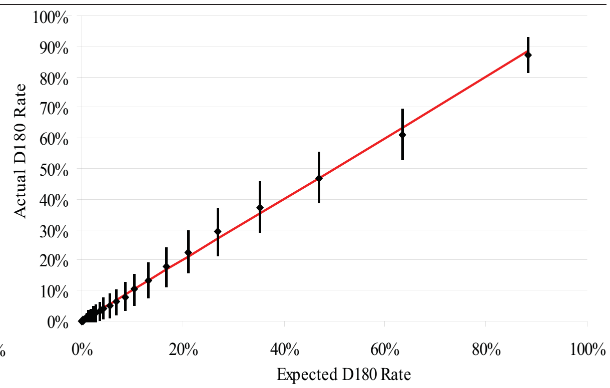


Figure 6b. Decile Plot of Behavioral Score



The solution is to fit a model that incorporates information about the deal. This is done through the use of the deal average score. A loan-level logistic model that has two factors is fit. The two factors are the log odds score of the loan and the log odds average score of all the loans in the deal. Figure 7a shows the actual versus estimated 180-day delinquency rate for the 3,045 deals scored from origination after the adjustment; Figure 7b shows the corresponding graph for the behavioral model. There is a distinct reduction in the deal-assignment affect.

Figure 7a. *Adjusted* Origination Score (after shrinkage)

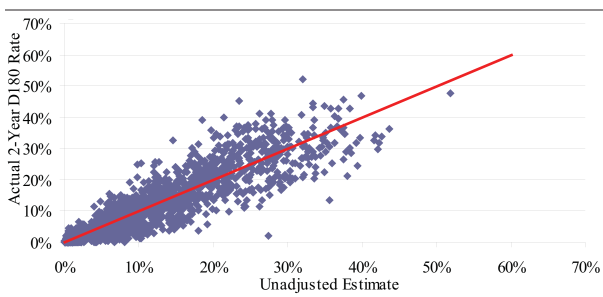
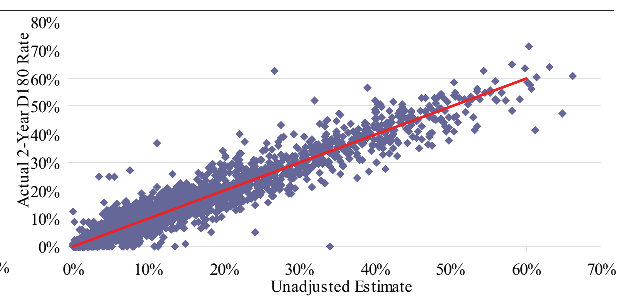


Figure 7b. *Adjusted* Behavioral Score (after shrinkage)



Applying this shrinkage factor in transactions pulls each loan closer to the average. A "good" loan in a subprime deal may not deserve the credit it would otherwise have received. Conversely, a "bad" loan in a prime deal may not be as bad as its collateral attributes have suggested.

CONCENTRATION RISK IN LOAN SIZE AND GEOGRAPHY

The risk presented by concentrations is that of an increased chance of loss exceeding the expected level rather than an increase in the expected level of loss. As such, the effect of concentration risk appears in the BB to AAA rating levels and not the B level estimates. The level of concentration is a key factor determining the level of asset correlation which, in turn, is an important factor in the determination of rating levels.

In RMBS Insight, concentration is measured by a Herfindahl index calculated on both a geographic (MSA level) and loan-size basis. The asset correlation model is a parametric model which is a function of the two concentration measures and credit quality. The parameters are fit from data. The data consists of the scoring model output (Delinquency Score Model) and the actual outcome of 2891 deals.

SMALL POOLS

For securitizations consisting of fewer than 300 loans, RMBS Insight incorporates a small pool adjustment. The rationale is that small pools are more sensitive to certain large loans incurring losses and therefore may exhibit a risk in excess of the model estimate.

The following steps are performed in order to build in a degree of safety against small pools. At the "B" rating level:

1. The 75th percentile of the 2-year D180 distribution is calculated.
2. The 2-year D180 rate is the weighted average between the unadjusted value and the 75th percentile value.
3. The weighting is linear between 100% weight to the 75th percentile for a portfolio of 100 loans (or less) to 0% at 300 loans.

For higher ratings categories, the target percentile is increased.

Rating Categories

In RMBS Insight, the approach to ratings categories has two components: one based on identifiable risks and the other based on unidentifiable risks.

IDENTIFIABLE RISK

Identifiable risks are those related to variables that are incorporated into the loss model. For these risks, it is a straightforward analysis to gauge the effect on the forecast to changes in the input variables. The effect of most of the variables on the forecast is uninteresting from the standpoint of ratings categories since their values are known with certainty. Origination LTV, FICO and documentation type are such examples. There are other inputs, however, whose values are forward looking. The primary forward-looking variables are derived from house prices. The default models and the loss severity (or recovery) model include variables that are functions of future house values. In the case of the default models, the future value of the property is used to calculate the future owner's equity. In the case of the recovery model, future house value is used directly.

Associated with each rating category is a market value decline scenario, as exhibited in Table 8. All future house values are adjusted downward by this percentage. The adjustment is applied in addition to a) the peak-to-trough home price forecast scenario, b) distressed sale discount and c) further property value haircuts by property and loan characteristics as described in the loss severity section. The distribution of the average peak-to-trough decline can be found from the peak-to-trough model and incorporating the observed contemporaneous correlation in the series. The MVD values for the ratings categories are percentiles of this distribution.

Table 8. Market Value Decline by Rating Category

Rating Category	Market Value Decline*
AAA	28%
AA	25%
A	20%
BBB	15%
BB	9%
B	5%

** The market value declines by rating category are applied in addition to:*
a) Peak-to-trough home price forecast.
b) Distressed sale discount of -30.8%.
c) Further property value haircuts by property and loan characteristics.

UNIDENTIFIABLE RISK

Even if all the inputs to the model, such as house prices, are known, there is still variation between the estimates and the actual values. An examination of Figures 7a and 7b in the "Shrinkage" section makes this clear.

There are a number of causes of variation between the estimate and the actual:

1. Uncertainty in the model coefficients.
2. Inherent variability in portfolio outcomes.
3. Model misspecification and incomplete or incorrect data.
4. Model drift.

A traditional confidence interval around an estimate focuses on Cause 1 and makes statements about the unknown mean portfolio loss rate. Confidence intervals are of little interest in this setting. The focus of interest is not making statements about the mean portfolio outcome but the single outcome of the portfolio at hand. Making statements of this nature involves incorporating Cause 2. Such statements are referred to as prediction intervals. An example of a confidence interval is a statement like: "A 95% confidence interval for the mean home size in the United States is 2650 to 2750 square feet." An example of a prediction interval is a statement like: "A 95% prediction interval for the size of a house whose address is randomly selected from the tax rolls is 2500 to 2900 square feet." Prediction intervals are wider then confidence intervals.

Any model is an abstraction of reality. It is a simplification based on incomplete data. Simplification necessarily introduces error. Error is also introduced as the values of relevant variables that are not captured vary. These are examples of Cause 3. It is also common for the relationships captured in the model to change over time. This is referred to as model drift – Cause 4.

These risks are referred to as unidentifiable. Though unidentifiable, they can, to varying degrees, be quantified. Methods to handle Causes 1 and 2 are well known. The philosophy behind quantifying Cause 3 is this: that the error relates to processes by which loans are originated and chosen to be included in deals as well as uncaptured regional economic effects. The combined effect of these processes manifests itself as an observable correlation of defaults within a deal.

Appendix 5 "Rating Category Models" details the models DBRS uses to derive the rating categories. They are:

1. Peak-to-trough model of house prices (to address the identifiable risk).
2. D180 correlation model (to address the unidentifiable risk).
3. Recoveries correlation model.

Re-securitizations (or ReREMICs)

SUMMARY

RMBS performance deterioration has triggered a trend in mortgage securitization: the use of re-securitizations (or ReREMICs) as a restructuring tool. Following substantial downgrade actions in recent vintages, the surge in ReREMICs was primarily motivated by the desire to create securities with increased credit support to ensure rating stability and improved liquidity.

Typically, a ReREMIC is viewed as a pass-through of interest, principal and losses from one or more underlying certificates to a newly created ReREMIC. Recent ReREMICs, frequently backed by originally AAA-rated underlying certificates, often employ a simple A/B (or senior/subordinate) structure, with Class B providing additional credit support to Class A via subordination. In most ReREMICs, interest payments on Class A and B are distributed on a pro-rata basis and principals are paid sequentially.

RATING APPROACH

When rating ReREMICs, DBRS uses RMBS Insight to assess the probability of default, loss severity and expected losses on the underlying pool, as described in previous sections.

Furthermore, ReREMICs are often backed by seasoned and distressed underlying transactions issued in 2005 to 2007. In most cases, the origination and underwriting process, representations and warranties and due diligence reviews within the transactions were weak in quality. A portion of these qualitative risks, along with servicing capability, are manifested in deal performance over time, and are therefore captured through the seasoned characteristics by our model. Additional haircuts on FICOs, appraisals, mortgage insurance and slower prepayment speeds may be warranted to address these risks on seasoned loans.

A cash flow analysis is always performed for ReREMIC ratings, as detailed in the next section.

CHALLENGES AND CONCERNS

Rapid deterioration in the housing market and a bleak economic outlook have made it challenging to rate certain ReREMICs. DBRS renders the following types of ReREMICs not ratable.

- Underlying bonds backed by second liens and HELOCs
- Underlying bonds backed by pools with loan count lower than 200

In situations where no updated borrower information is available or when property values have declined significantly, it is very difficult to predict borrower behavior in second liens and HELOCs, even if they are currently performing. Nor can one ascertain the expected losses in pools with loan count lower than 200, for the tail risk and performance volatility.

Certain other types of ReREMICs may be ratable, however these ReREMICs may not warrant the highest ratings from DBRS.

- Underlying bonds with a class factor of 1 (often times non-front-pay seniors) with high delinquencies and losses.
- Underlying pools with high loss expectations (most subprime and some Alt-A transactions).

In a ReREMIC, DBRS cash flow analysis considers how fast an underlying bond is paying down relative to how rapidly the losses are being applied from the bottom of the capital structure. A bond with a class factor of 1, so far locked out from principal distribution, is far more sensitive to cash flow assumptions than a front-pay senior. When evaluating bonds with a factor of 1, DBRS will determine how long it will take for such a bond to start receiving principal under various prepayment scenarios. Typically a bond that will not start to receive principal within 2 years may not warrant the highest ratings, especially if the transaction is experiencing high delinquencies and losses.

Additionally, for underlying transactions with high loss expectations, it is often not possible to achieve the highest ratings after applying conservative cash flow assumptions.

Finally, DBRS does not assign ratings below "A" in any ReREMICs, due to the sensitivities to performance volatility at the lower rating categories.

Servicing Practices and Their Impact to Interest Payments

Since a ReREMIC is a pass-through of interest, principal and losses from the underlying certificates, its interest entitlement is usually capped at the actual interest amount collected on the underlying securities. In other words, a ReREMIC trust can not pay out more interest than it receives from its collateral, and sometimes, what is collected on the underlying securities can be as low as zero.

When rating ReREMICs, DBRS is assessing the ability of the trust making the full principal payment by the legal final maturity date of the transaction. These transactions typically define interest rate as the lesser of the bond coupon and the available interest funds. Hence, the DBRS rating does not provide an opinion on the timeliness or amount of interest payments the investor may receive. The trust's only obligation is to pass through the interest proceeds net of fees from the underlying securities.

Continued deterioration in securitization performance has prompted changes in servicing practices that were not anticipated pre-crisis. Loan modification, mostly in the form of interest rate reduction, was a loss mitigation technique meant only for a limited number of distressed borrowers, not as a solution to colossal defaults as it is today. In addition, large scale modifications often allowed servicers to recoup past servicing advances at the top of the waterfall, reducing the interest amount distributable to the bond holders. Finally, driven by unprecedented level of delinquent mortgages and extending foreclosure timeline, a declining trend in servicing advances have been observed and will most likely continue in the foreseeable future. Consequently, ReREMIC investors these days are more likely to experience lower interest receipts for reasons described above.

Transaction Structure and Cash Flow Analysis

TRANSACTION STRUCTURE

RMBS transactions are typically structured into credit tranches, representing varied credit risk ranging from AAA (seniors), AA to B (subordinates). The following are typical structures and features in RMBS transactions.

Pure Sequential and Pro-rata Structure (Without Triggers)

In a sequential pay structure, all incoming principal cash will be used to pay down the AAA classes. The subordinate bonds are "locked out" from any principal payments until the seniors are paid in full. This ensures increased credit support for the AAA bonds. In a pro-rata structure, subordinates pay down concurrently with the seniors, resulting in a reduction in the absolute amount of subordination to the senior classes.

Shifting Interest Structure

In a shifting interest structure, scheduled principal is allocated to all classes on a pro-rata basis. Unscheduled principal (or prepayments) however, is distributed based on a schedule. For years after issuance, in addition to its own allocation of prepayments, the senior classes are also entitled to a percentage of the subordinates' share of prepayments. The entitled percentage steps down with time, until zero, provided if the transaction is performing well, as measured by delinquency and loss triggers. Shifting interest structures are often utilized in prime (and some Alt-A) securitization.

Senior Subordinate and Over-collateralization (Sr-Sub OC) Structure

In non-prime transactions, loans bear higher interest than their prime counterparts to compensate for the greater credit risk. The higher rate usually results in a sizeable strip of excess cash (or excess spread), after paying bond coupons and other fees. Excess spread is used to pay additional principal to the bonds on top of the principals actually received on the collateral, thus creating overcollateralization (OC).

In a Sr-Sub OC structure, principal payments are usually allocated sequentially to the senior and subordinate classes. Such allocation continues until the step down date. Principal will be distributed pro-rata among all classes at such date, provided that the transaction is performing well. At that time, OC is also allowed to step down subject to an OC floor.

Triggers

Triggers are important as they may alter principal allocations in a transaction. In a Sr-Sub OC structure, trigger may also impact the OC size and therefore the level of credit support. Triggers are usually tied to delinquency, in the form of a rolling 60+-day delinquency rate, and cumulative losses.

Loss Allocation

In a RMBS transaction, losses are first absorbed by excess spread and overcollateralization (when applicable), followed by the non-rated class (if any), and finally reverse sequentially from the lowest- to the highest-rated bonds. Once the subordinates are written down, loss allocation is typically pro-rata among all the senior classes.

CASH FLOW ANALYSIS

For transactions that may be impacted by cash flow stresses[3], RMBS or ReREMICs, DBRS undertakes a detailed structural analysis (currently in Intex) to ensure timely payments of principal and interest to the bonds. The cash flow modeling assumptions DBRS uses for rating RMBS transactions focus on the following risk factors:

1. Prepayment speeds
2. Timing of losses
3. Interest rate stresses (when there is a mismatch between the collateral and bond coupons)

The complexity of the capital structures in RMBS transactions requires testing various combinations of cash flow stresses to properly analyze a bond. DBRS incorporates a dynamic cash flow analysis in our rating process. As indicated in Table 9 below, a baseline of five prepayment scenarios (under two Intex conventions – Standard and Max[4]), two loss timing curves and two interest rate stresses are generally applied to test the resilience of a bond. An appropriate rating is one that can withstand the combination of DBRS-modeled cash flow stresses without the rated class incurring any interest shortfalls or principal writedowns. As warranted, transactions may be further stressed to include weighted average coupon (WAC) deterioration as well as delinquency vectors to test the impact of triggers. DBRS generally runs 40 scenarios in each rating category to test the sensitivity of the rated securities to various cash flow stresses.

3. Certain transactions may not be affected by cash flow stresses. These structures are typically sequential-pay, without triggers and the principal and interest waterfalls are kept strictly separate.
4. Standard: The standard prepayment rate consists of voluntary prepayments only. Prepayment amount and default amount are applied to the loans independently. Max: Intex will first apply the defaulted amount, then apply the prepayment amount such that the total amount applied is equal to the larger of the prepayment or the default amount.

Table 9. DBRS Base Cash Flow Scenarios

Scenario	Prepayments	Intex Prepayment Convention	Loss Timing	Interest Rate*
1-5	5 - 25% CPR	Standard	Front-loaded	Upward
6-10	5 - 25% CPR	Standard	Front-loaded	Downward
11-15	5 - 25% CPR	Standard	Back-loaded	Upward
16-20	5 - 25% CPR	Standard	Back-loaded	Downward
21-25	5 - 25% CPR	Max	Front-loaded	Upward
26-30	5 - 25% CPR	Max	Front-loaded	Downward
31-35	5 - 25% CPR	Max	Back-loaded	Upward
36-40	5 - 25% CPR	Max	Back-loaded	Downward

** Where there is a mismatch between the collateral and bond coupons.*

This section will examine each risk factor and how it affects collateral and bond cash flow.

PREPAYMENT SPEEDS

Prepayment speed measures the rate at which borrowers make their principal payments prior to the scheduled maturity date. In a shifting-interest structure, high prepayment speeds allow subordinate bonds to pay down quickly thus reducing the absolute amount of credit support they provide to the senior classes. Such scenarios, when combined with a back-loaded loss timing curve, are especially precarious for the outstanding senior bonds. In addition, prepayments reduce the outstanding principal balance of a mortgage pool, thus reducing excess spread. The faster the prepayment speeds, the quicker excess spread is depleted.

Interest Rate Movements and Refinance Tendency

Historical data shows a correlation between a borrower's prepayment behavior and interest rate movements. Generally, in a declining interest rate environment, borrowers are motivated to refinance and may do so if their credit profile allows. Conversely, prepayment speed typically slows as interest rates rise.

The recent housing and economic crises have created an interesting phenomenon. Despite the historically low interest rates, voluntary prepayments, particularly in the non-agency market, remain extremely low. Faced with blemished credit histories, insufficient home equity or tougher underwriting standards, many existing borrowers find it difficult to refinance.

Payment Shock after Reset

After the reset date, prepayment behaviors can vary by product type. For example, interest rates on hybrid ARMs may increase substantially. Due to payment shocks that can occur as the rate resets from the initial fixed rate, borrowers are more likely to prepay their mortgages at or shortly after the respective reset dates. Again, this observation may not hold true in an environment where refinancing options are limited.

Dynamic Prepayment Curves

The current low prepayment environment presents a challenge in stressing RMBS transactions as slow speeds could lead to overly optimistic valuations of excess spread. Conversely, high prepayment speeds stress excess spread properly, but may also deplete collateral too quickly to allow 100% of the expected losses to pass through the capital structure. As such, DBRS finds it prudent to apply a dynamic prepayment stress.

In a typical transaction today, DBRS applies five prepayment stresses (under two Intex prepayment conventions) that generally range from 5% to 25% CPR. As expected, these speeds will be adjusted or expanded should the overall prepayment environment change. The stresses will also be validated against issuers' actual prepayment experience for each type of transaction. For example, prime transactions generally prepay faster than Alt-A and subprime pools. Depending on future economic and housing environments, adjustments will be made as needed to shift the speeds faster or slower.

TIMING OF LOSSES

The timing of losses is a key factor in cash flow analysis. In most transactions the servicers generally advance the principal and interest (P&I) payments on delinquent mortgages, so DBRS assumes that defaults and losses will occur simultaneously.

Depending on which part of the capital structure is being stressed, faster or slower realization of losses can have a different impact on the bonds. For example, when stressing certain non-accelerating seniors (NAS)[5], front-loaded losses may deplete credit enhancement faster, but may also cause all subordinated bonds to be written off sooner, triggering the NAS bond to emerge from its lockout period prematurely and start paying down sooner.

Traditionally, a loss curve spans over seven to 10 years, the bulk of the losses happen between years two and five. During the most recent housing crisis, it is not uncommon to observe a more back-loaded loss timing pattern, particularly for 2005 and prior vintages. Many of these loans did not incur losses until well into their 5th to 7th years. To capture such sensitivities, it is imperative to test multiple loss timing curves when rating a transaction.

DBRS usually estimates two base loss timing patterns for a new origination pool: front- and back-loaded curves, as shown in Figure 8a below. These curves illustrate how losses will be distributed throughout the life of a transaction, generally 10 years. The area under each curve adds up to 100%.

Figure 8a. DBRS Loss Timing Curves (New Origination Pools)

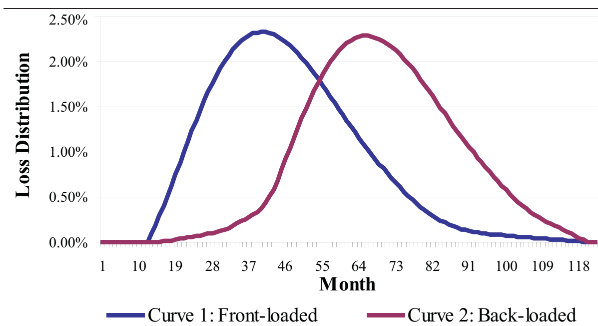
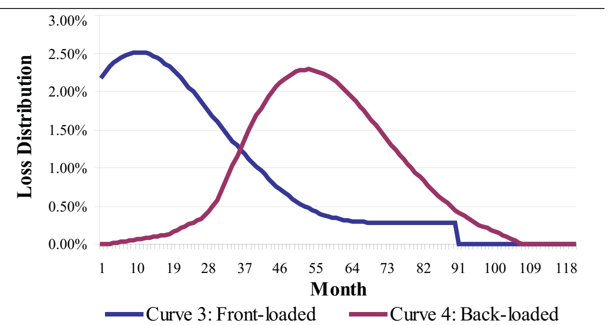


Figure 8b. DBRS Loss Timing Curves (30-Month Seasoned Pools)



For seasoned transactions, DBRS also estimates two loss timing patterns, retaining the shape of Curve 1 and 2 in Figure 8a. The front-loaded pattern, Curve 3 (derived from Curve 1) will be seasoned by the weighted average age of the pool. The back-loaded pattern, Curve 4 (derived from Curve 2), assumes all future losses starts at month 1 after transaction issuance. Figure 8b above illustrates an example of the two loss timing patterns for a transaction that is 30 months seasoned.

These curves can be further back-loaded if warranted. For example, a seasoned transaction with an exceedingly high delinquency pipeline and low corresponding cumulative losses may suggest difficulties in disposing the properties, due to servicers' ineffective liquidation technique or the properties' distressed locations.

5. NAS bonds receive principal according to a schedule and are typically locked out of principal distribution for three years following issuance. However, once all the subordinate bonds are written off, they will receive their principal distribution on a pro rata basis with other senior classes.

Transactions without P&I Advances

In transactions where the servicers do not advance cash for delinquent mortgages, any principal and interest payments will be shut off as soon as a loan becomes delinquent. Any recoveries or liquidation proceeds from that loan will not be available for an extended period of time. In our analysis, DBRS approximates delinquency timing curves by front-loading our standard loss timing curves, as described in the previous paragraph, by an average liquidation timeline, currently at about 24 months. The length of this period is dependent on the liquidation timeline for the mortgage pool and may vary by transaction with different state concentrations.

INTEREST RATE MISMATCH

Interest rate mismatch risk occurs when the interest rate on the underlying mortgage collateral adjusts differently from the interest coupon on the bonds. For example, assume that the underlying mortgage loans are either fixed-rate or hybrid ARMs, and the bonds are based on one-month LIBOR, if LIBOR rises, excess spread decreases. Interest rate mismatch also exists for securitizations in which the mortgage loans and bonds adjust based on different indices. If the two indices were to converge, excess spread would decrease. It is important to quantify the effect of this mismatch by stressing interest rates.

Mismatch can also occur when there are hedging instruments such as interest rate swaps in the transaction. Typically the issuer agrees to pay the swap counterparty a specified fixed rate while receiving one-month LIBOR from the counterparty. To the extent LIBOR is greater than the specified fixed rate, the issuer (or the RMBS trust) benefits as they receive more than they pay. The trust loses money if the opposite happens. It is important to perform various interest rate stresses because the hedges can become unbalanced between outstanding assets and liabilities overtime.

DBRS generally applies two sets of interest rate stresses (upward and downward) for each transaction. Please refer to the Unified Interest Rate Model for U.S. RMBS Transactions for more detail of the interest rate stresses applied by DBRS.

LIQUIDATING TRUST SECURITIZATIONS

Liquidating trust securitizations are primarily backed by liquidation proceeds of non-performing assets. DBRS uses RMBS Insight to assess the probability of default, loss severity and expected losses on the mortgage pool, as described in previous sections. Cash flow analysis for these securitizations is unique due to the nature of the mostly delinquent asset pools.

The expected cash flow in a liquidating trust securitization can come from two main sources: liquidation proceeds of the delinquent assets or regenerated payments if the assets are re-performing due to modification or a credit cure. DBRS generally assumes that the assets will go through the natural course of foreclosure and liquidation, unless there is strong evidence of the servicer's ability to revitalize the delinquent mortgages.

DBRS formulates conservative assumptions for the expected timing of liquidation proceeds for each delinquency bucket. By and large, the REO properties, particularly those already in contract or have been listed, will be the first in line to be liquidated, followed by foreclosure, bankruptcy and 90+-day delinquencies, and finally 60- and 30-day delinquencies. Table 10 gives a base liquidation timeline for each delinquency bucket. These timelines can adjust based on the judicial and non-judicial state composition and servicer-specific liquidating timelines.

Table 10. DBRS Base Liquidation Timeline

Delinquency Status	Liquidation Starts	Duration*
REO in Contract	Month 3	~ 1 Year
REO Listed	Month 5	~ 1 Year
REO Not Listed	Month 7	~ 1.5 Years
Foreclosure	Months 13-19	~ 2 Years
Bankruptcy	Months 13-19	~ 2 Years
90+ DQ	Months 19-22	~ 2 Years
30 & 60 DQ	Months 22-25	~ 2 Years
Sub-performing Loans	24-30 months after becoming delinquent	

** To caputre "tail" risk, DBRS assumes only 90% of the loans in each delinquent bucket would follow the base timeline listed here. The other 10% will linger on for an additional year.*

There is always "tail" risk in non-performing pools, that is, for various reasons, some properties will not be liquidated within a realistic timeframe. DBRS assumes that only 90% of the loans within each delinquent bucket would follow the base timeline, the other 10% of the loans will linger on for an additional year.

Reserves for Interest and Fees

Non-performing loans take time to migrate through the foreclosure pipeline to ultimate liquidation, meanwhile, interest payments and servicing and trustee fees are due from day one. Therefore, reserves are often needed to ensure timely interest payments and transaction fees before the expected liquidation proceeds begin. Aged REO properties or cash flowing mortgage assets (see "Sub-performing Loans" below) may help reduce the reserve amounts to the extent they can cover interest and fee shortfalls early on in a transaction.

In addition, in a liquidating trust securitization, a portion of the principal cash (liquidation proceeds), which otherwise would have been used to amortize the bond balance, is almost always "borrowed" first to cover interest payments and fees, thus prolonging the pay-down of the rated bonds. Under such scenarios, an increased amount of credit support will be needed to account for the "borrowed" principal, resulting in higher credit enhancements than what the expected losses are for the pool, at each rating category.

Sub-performing Loans in Liquidating Trust Pools

DBRS has noticed that some liquidating trust pools may include a portion of sub-performing (or cash flowing) loans. The benefits of including such loans are obvious. They serve to reduce expected losses and more importantly, to fill the interest gap and sometimes lower the amount of reserves.

Sub-performing loans are not contractually current. Sometimes these loans are "performing" because they have been modified or they are merely cash flowing (i.e. making reduced or delayed monthly payments). Default patterns for such loans can be very different from those of contractually current mortgages.

When analyzing the sub-performing loans, DBRS has made the assumption that a significant portion of these loans, if not all, would become delinquent shortly after closing, sometimes as soon as within one year since issuance. The actual timeline to default will depend largely on whether a sub-performing loan has been modified, how long ago the modification took place and what type of modification. Upon a sub-performing loan becoming delinquent, its liquidation proceeds will not begin until 24 to 30 months from that date.

SWAP TERMINATION PAYMENTS

Interest rate swaps were commonly used in RMBS transactions to protect the capital structure against rises in interest rates. Typically, the trust pays a fixed rate payment to the swap counterparty in exchange for a floating rate (LIBOR) payment by the counterparty to the trust. Currently LIBOR rates have fallen to nearly zero, if these swap contracts were to terminate today due to a trust failure to pay, the swap counterparty will be entitled to a termination payment from the trust.

When rating swap termination payments, DBRS is assessing the ability of the trust making the swap termination payments to the counterparty by the legal final maturity date of the transaction.

In most RMBS transactions, the swap termination payments owed to the counterparty are senior in the payment priority to the certificate holders if the trust is the defaulting party. In addition, the size of the available collateral cash flow from each distribution date (and from future distribution dates if the termination payment is not paid in full in a given period) often significantly exceeds what is needed to pay off the termination payments. Therefore, these termination payments have long been regarded as secure cash flow, certainly as good as, if not better than, interest owed to the senior certificates. Due to the considerable deterioration in RMBS performance, some transactions may not be able to fully pay off the swap termination payments, especially in stressed rating scenarios.
When rating swap termination payments, DBRS uses RMBS Insight to assess the probability of default, loss severity and expected losses on the underlying pool, as described in previous sections. An enhanced cash flow analysis is then performed to assess the risk that the collateral may exhaust, due to fast prepayments and/or loss occurrence, before the interest rate swaps expire.

The DBRS cash flow analysis for rating swap termination payments includes running multiple fast and slow voluntary prepayment speeds and passing through expected losses in a front-loaded pattern under various rating scenarios, as described earlier in the section. Once the cash flow is run, the stressed collateral cash flow is compared against each period's potential swap termination payment to determine if there is sufficient coverage to make the termination payment by the legal final maturity of the trust.

To calculate the swap termination payments, DBRS first derives the net swap cash flow for each period by comparing a) the fixed stream of payments from the trust to the swap counterparty against b) the LIBOR payments which the counterparty would expect to pay to the trust. Next DBRS aggregates the net swap cash flow for all future periods to derive the total potential swap termination payments.

In certain underlying documents, there is a penalty rate assessed for any unpaid swap termination payments in each period. DBRS uses the unified interest rate model to stress such penalty rate.

A rating is only assigned when under such rating scenario, there is sufficient coverage of collateral to ultimately pay the swap termination payment should the trust default on swap payment obligation on any distribution date.

For transactions with high loss expectations and/or a swap expiration longer than 12 months, the swap termination payments may not achieve the highest ratings. Additionally, DBRS does not assign ratings below "A" in any swap termination payments, due to the sensitivities to performance volatility at the lower rating categories.

Legal Structure Review

LEGAL STRUCTURE REVIEW

DBRS reviews each transaction and the related documentation to determine if the DBRS legal criteria are satisfied. Counsel for the issuer must provide opinions opining on the likelihood of certain legal outcomes.

BANKRUPTCY REMOTENESS

The primary aim of securitization is the legal separation of a pool of assets (and their associated cash flows and contractual rights) from an asset seller or originator. This separation is achieved by transferring assets from the sellers to an entity that is created specifically for this purpose, a special-purpose entity (SPE). The SPE is designed to be independent of the liabilities and risks associated with the sellers and can therefore issue securities backed purely by the cash flows and credit strength of the assets sold to the SPE.

The separation of the assets from the financial risk of the originators is fundamental to a structured finance transaction. The assets must be transferred in a manner such that, in the event of the bankruptcy of the seller, the assets would not be part of its bankruptcy estate or subject to an automatic stay under Title 11 of the U.S. Code (the Bankruptcy Code). The primary goal is to ensure that the assets are beyond the reach of a seller's creditors. Bankruptcy remoteness is an essential concept in structured finance. Attaining bankruptcy-remote status is dependent on the legal structure of the transaction, the transaction documentation, the relationship between a seller and the SPE and the relevant laws of the applicable jurisdiction(s).

OTHER CONSIDERATIONS

While bankruptcy remoteness is one essential factor in the DBRS legal criteria, it is not the only consideration. The DBRS legal criteria seek to ensure that the structure of a transaction protects holders of RMBS and sufficient resources are always available to allow the SPE to meet its obligations of the rated securities. DBRS's legal review addresses various other issues that may arise during the life of the transaction, such as the proper servicing of the assets and collection of the cash flows they generate. The legal structure is also reviewed to confirm that insolvency, legal status or existence of claims against any entity involved in the transaction do not threaten cash flow to rated security holders.

For details on the legal structure review, please refer to the DBRS methodology "Legal Criteria for U.S. Structured Finance Transactions".

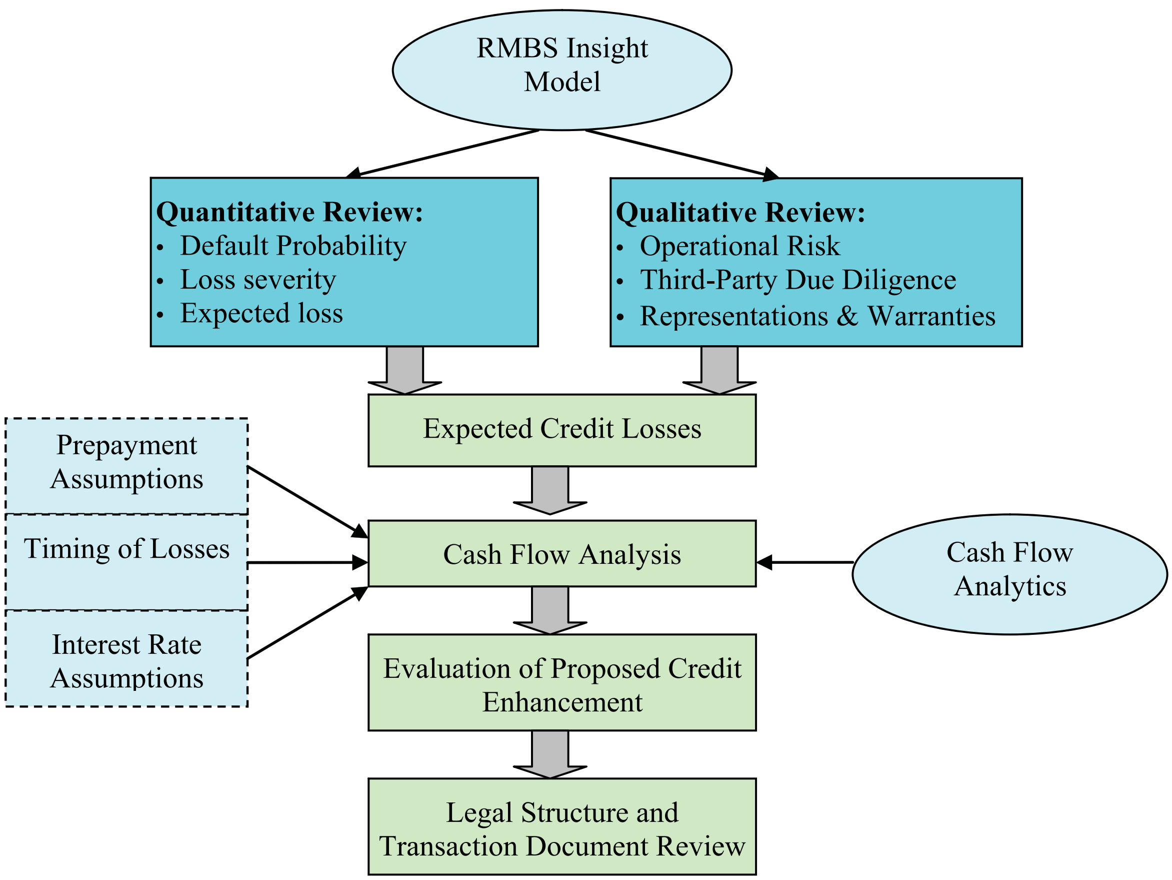
Appendix 1. Rating Process for U.S. RMBS Transactions

RATING PROCESS

The DBRS methodology for rating U.S. residential mortgage-backed securities (RMBS) reflects the following analytical considerations:

- Quantitative review: Loan-level default probability and loss severity analysis.
- Qualitative review:
  - Operational risk assessment.
  - Third-party due diligence review.
  - Representations and warranties review.
- Cash flow analysis (for transactions that may be impacted by cash flow stresses)[6].
- Evaluation of the form and sufficiency of proposed credit enhancement for the respective ratings.
- Legal structure and transaction documents review.

The following diagram describes the process for analyzing a mortgage transaction:



1. DBRS conducts a loan-level analysis using the DBRS proprietary U.S. RMBS model, RMBS Insight[7]. The model analyzes default probability, loss severity and expected credit losses of a mortgage pool.

6. Certain transactions may not be affected by cash flow stresses. These structures are typically sequential-pay, without triggers and the principal and interest waterfalls are kept strictly separate.
7. The RMBS Insight Model is a substantial component of the DBRS rating process. A material deviation from the rating implied by the model would be a three-notch or greater rating difference.

2. RMBS Insight also incorporates the results from the following qualitative reviews:
   - DBRS assesses the operational risk by evaluating the quality of the mortgage originator and servicer.
   - DBRS reviews third-party due diligence results to assess the accuracy of the data provided by the issuer and whether the mortgage loans were originated in compliance with applicable underwriting standards and legislations.
   - DBRS reviews the proposed representations and warranties for the transaction and the related counterparty strength.

3. For transactions that may be impacted by cash flow stresses, DBRS performs a cash flow analysis by incorporating stress assumptions on prepayments, timing of losses and interest rates to ensure timely payments of interest and principal distributions to the holders of the rated bonds.

4. DBRS evaluates the form and sufficiency of proposed credit enhancement for the respective ratings.

5. DBRS reviews the legal structure of the transaction and the associated legal opinions.

Appendix 2. Operational Risk Assessment

ORIGINATOR REVIEW

The originator review process is done to assess whether the loans have been originated in accordance with the seller's underwriting guidelines and that the originator is in compliance with applicable laws and regulations. For multi-originator transactions, the review is typically done on originators that encompass 15% or more of a transaction, however, this threshold may be lowered if a transaction contains a product that is deemed to be high risk or if the originator has had a history of poor performance. The assessment includes a review of the items noted below and is supplemented by the results of a third-party due diligence review performed for the transaction. (For details on due diligence reviews, please refer to the DBRS methodology "Third-Party Due Diligence Criteria for U.S. RMBS Transactions"). For seasoned transactions, an originator review is generally not conducted as DBRS believes that the performance history of the loans is more indicative of the credit risk than the dated origination and underwriting practices. Moreover, many of the originators active from the pre-crisis era may have long exited the business. Those who continue to originate may have significantly changed their practices and controls over time.

DBRS begins the initial originator review process by scheduling a date to conduct an on-site visit of the company. Once a date is confirmed, DBRS sends a sample agenda that outlines the topics to be covered during the meeting which includes items such as organizational charts, financial statements, underwriting guidelines and performance statistics. During the on-site review, DBRS meets with senior management to discuss the origination operations, tour the facilities and review system demonstrations, as appropriate. DBRS assesses the information gathered through the review process, along with its surveillance data and industry statistics to determine if an originator is acceptable. In instances where DBRS determines that the originator is below average, issuers may incorporate certain structural enhancements into a proposed transaction such as additional credit support or a third party firm to provide the requisite representations and warranties (reps and warrants) in order for DBRS to be able to rate the transaction. In the event that DBRS determines that an originator is unacceptable, it may decline to rate the deal.

The originator review process typically involves a review and analysis of the following:

1. Company and Management
2. Financial Condition
3. Controls and Compliance
4. Origination and Sourcing
5. Underwriting Guidelines
6. Valuation Practices
7. Technology

Company and Management

DBRS believes that no origination operation can be successful without a strong seasoned management team that possesses demonstrated expertise in the product(s) they are originating. As a result, DBRS views favorably those originators whose management team possesses greater than ten years of industry experience. Additionally, DBRS believes the participation of the credit risk management, quality control, legal and compliance departments in all aspects of the origination and underwriting process is important in order to identify and mitigate risk. Furthermore, adequate capacity and resources to handle fluctuations in loan volume are of paramount importance.

Financial Condition

DBRS reviews the originator's financial condition to determine whether the lender has sufficient resources to make the appropriate representations and warranties on the loans being included in a securitization.

In cases where DBRS does not maintain a public rating of the originator, the DBRS Financial Institutions Group provides an internal assessment (IA) of the relevant institution. In certain cases, DBRS may rely on public ratings assigned and monitored by other credit rating agencies.

For entities with credit rating below "BBB", DBRS believes that a comprehensive and satisfactory due diligence performed for securitizations should reduce the occurrence of future repurchase claims due to breaches of representations and warranties. In such instances, DBRS places a greater reliance on due diligence to compensate for the weaker financial strength of the origination entity.

Some items that are reviewed as part of this process may include:

- Company ownership structure
- Management experience
- Corporate rating of any parent company (if applicable)
- Internal and external audit results
- Revenue sources and lines of credit
- Costs to originate
- Litigation (past, present and expected)
- Existing business strategy and strategic initiatives
- Recent or planned mergers or acquisitions
- Recent or planned transfers or acquisitions
- Securitization history and future plans

Any financial stress identified can elicit originator problems either immediately, as in the case of a bankruptcy, or lead to a slow degradation of the performance of the collateral. Therefore, the originator's financial condition weighs on all aspects of DBRS analysis of RMBS transactions including the evaluation of proposed credit enhancement levels and the presence of proposed structural safeguards.

Controls and Compliance

DBRS believes internal assessments and quality-control reviews are critical in recognizing procedural errors that may not be easily detectable. These reviews can be used to identify trends, training opportunities and exception practices. Frequent checks can assist management in quickly instituting changes to areas needing improvement, as well as benchmarking those results to performance. In addition to the aforementioned reviews, a monitoring process should be in place to ensure that the originator is in compliance with all applicable laws, rules and regulations and that all employees in customer-facing positions are appropriately trained.

DBRS views favorably those originators that are in good standing with FNMA, FHLMC, FHA, VA and GNMA and are not the subject of any regulatory or state investigation(s). Minimal or no repurchases due to breaches of representations and warrants are considered of paramount importance as well as robust procedures for vendor selection and oversight. Additionally, strong controls for managing potential conflicts of interest associated with parties to a transaction are also important.

Origination and Sourcing

DBRS reviews the origination and sourcing channels to determine if the originator has a clearly defined strategy. Approval and monitoring processes for third party originators including brokers, correspondents and conduits are also reviewed to determine if the originator has strong procedures and controls. Underwriting practices that include regular performance tracking and post closing quality control reviews are viewed favorably by DBRS. Furthermore, procedures that ensure new loan setup accuracy and data integrity are fundamental to ensuring minimal errors. As a result, DBRS views favorably those originators with a high level of automation and a low tolerance for missing documentation. Additionally, DBRS reviews the originator's efforts towards compliance with regulatory guidelines and industry best practices. Furthermore, the originator's portfolio is reviewed for changes in size, product type or delinquency (such as first payment defaults).

Underwriting Guidelines

An originator's appetite for risk and the underlying quality of its underwriting guidelines can have a significant impact on deal performance. Therefore, DBRS uses both a qualitative and quantitative approach to conduct its originator reviews and make comparisons among originators. Historical loan performance, repurchase volume and mortgage insurance claim denial rates are just some of the components that are incorporated into determining the quality of an originator.

DBRS views favorably those originators that have robust guidelines and use reliable means to accurately assess a borrower's income, employment and assets. Furthermore, sophisticated technology and strong fraud-detection procedures can help prevent early payment defaults as well as accurately determine debt-to-income ratios. An originator's use of exception and override practices can also help to access the quality of the originations. Additionally, separation of the origination and underwriting functions in addition to a compensation structure that emphasizes quality over loan volume can help to ensure predicable performance.

Valuation Practices

The accuracy of appraisals can severely reduce losses to RMBS investors. As a result, DBRS considers a comprehensive property evaluation process a necessity. Employing licensed appraisers that have no interest in the property and receive no benefit from or compensation for the mortgage loan's approval or disapproval are viewed favorably by DBRS. Since many firms outsource this function, comprehensive appraiser approval and monitoring processes as well as employing an appraisal review function into the origination process is also considered essential. An originator's use of real estate brokers providing broker price opinions and automated valuation models (AVMs) is also evaluated to determine the criteria and frequency by which they are used. DBRS views favorably those firms that use these items to monitor the accuracy of their appraisal process.

Technology

Technology resources are an integral component of the originator review process. While DBRS does not subscribe to specific systems architecture, adequate systems controls, consumer privacy protection and backup procedures, including disaster recovery and business continuity plans, are considered critical processes and should be in place. Furthermore, originators must ensure that any offshore vendors are monitored and a backup plan is in place to ensure minimal downtime. Over the past few years, leveraging the Internet has enabled many firms to operate effectively in the mortgage business. Originators have used the Internet for marketing, customer service and the dissemination of pertinent information, such as applications and appraisal requests. As a result, DBRS expects originators to have the appropriate staff and controls in place to ensure website availability, account maintenance and enhancements. Sophisticated technology, with robust functionality, is viewed favorably by DBRS as it often helps bring large efficiencies to the origination operations in addition to more predictability in terms of loan performance.

SERVICER REVIEW

The servicer review process evaluates the quality of the parties that service or conduct backup servicing on the loans being securitized. DBRS meets with senior management at the servicing entity to discuss the servicing operations, tour the facilities and review system demonstrations, as appropriate. DBRS assesses the information gathered through the review process, along with its surveillance data and industry statistics to determine if a servicer is acceptable. In instances where DBRS determines that the servicer is below average, issuers may incorporate certain structural enhancements into a proposed transaction such as additional credit support, dynamic triggers or the presence of a warm or hot backup servicer in order for DBRS to be able to rate the transaction.

The servicer review process typically involves an analysis of the following:

1. Company and Management.
2. Financial Condition.
3. Loan Administration.
4. Customer Service.
5. Escrow.
6. Default Management.
    - Collections
    - Loss Mitigation
    - Bankruptcy
    - Foreclosure
    - Real Estate Owned (REO)
    - Advancing
7. Investor Reporting.
8. Technology.

For non-performing transactions, the process focuses on the company's strategy for handling various types of delinquent loans and its success rate in getting those loans to re-perform through foreclosure or sold through the REO process as quickly as possible.

For details on the servicing review process, please refer to the DBRS methodology "Operational Risk Assessment for U.S. RMBS Servicers".

OPERATIONAL RISK FRAMEWORK

In order to evaluate operational risk consistently across all newly originated RMBS pools[8], DBRS developed a framework that incorporates operational measures into the RMBS Insight model. The framework takes into consideration key aspects of our originator and servicer assessment, the results of the third-party due diligence review and the strength of the representations and warranties provider.

By stratifying historical performance by originator and servicer, DBRS was able to determine the variances across the RMBS performance spectrum (from the best- to the worst-performing transactions). Loans that are securitized near origination and that have sufficient information to be scored are identified. To qualify for the analysis, an originator must place a significant number of loans with at least three servicers who also service a significant number of loans from at least three originators. A loan-level logistic regression model is fit that has three explanatory variables: (1) the log odds of the 2-year D180 score; (2) a factor variable for originator; (3) a factor variable for servicer. The dependent variable for the analysis is a binary indicator of whether the loan became 180 days delinquent in the first two years after origination. Having fit the model, the range of the effect of originator (servicer) is calculated from the parameters associated with originators (servicers). In this way, the marginal or additional effect of origination (servicing) is captured after adjusting for the known loan characteristics and the servicer (originator).

Based on above analysis, the performance variance by originator and servicer generally fall between the +/- 25-35% range for originators and servicers (excluding a small number of irregular deals). For the purpose of this framework, DBRS limits the effect (i.e. benefits or penalties) to +/- 20%.

8. This framework is generally applicable to newly-originated loans. For seasoned loans, operational risk has usually manifested in deal performance over time, and is therefore captured through the seasoned characteristics by RMBS Insight.

DBRS reviews the following categories for originators[9]. Each category carries a different weight and sum to 100%:

1. Company and Management[10]
2. Controls and Compliance
3. Origination and Sourcing
4. Underwriting Guidelines
5. Valuation Practices
6. Technology
7. Quality of Information Provided to DBRS
8. Exception Rate from Third-Party Due Diligence
9. Historical performance of similar products

DBRS also reviews the following categories for servicers. Each category carries a different weight and sum to 100%:

1. Company and Management
2. Controls and Compliance
3. Loan Administration
4. Customer Service
5. Escrow
6. Collections
7. Loss Mitigation
8. Bankruptcy
9. Foreclosure
10. Real Estate Owned (REO)
11. Advancing
12. Investor Reporting
13. Technology
14. Quality of Information Provided to DBRS

DBRS constructed detailed proprietary scorecards that measure the quality of each of the above categories. They are evaluated and assigned a grade of above average, average and below average. Within the scorecards, certain scoring factors are deemed more important than others by DBRS, therefore they are further ranked high, medium and low importance. Accordingly, the originator and servicer is each scored separately, and adds up to a maximum score of 100 each.

Based on the originator and/or servicer score, benefits or penalties may be applied to loss expectations for a pool, through the adjustment of delinquency score. An originator (or servicer) score of 50 represents average quality and generally warrants neither a benefit nor a penalty. Any adjustment, up or down, is bounded by +/-20%, as derived above in the performance variance[11]. Any benefits to loss expectation need to be supported not only by a high originator or servicer score, but also by strong performance histories of similar products by the same originator or servicer.

Irrespective of the scores, DBRS may choose not to rate a transaction should there be overriding concerns with any originator or servicer.

9. For these categories, DBRS included related aspects from third-party due diligence and representations and warranties reviews that support the originator assessment.
10. This category includes the financial condition of the originator, who is typically also the provider of representations and warranties.
11. DBRS limits the benefit at 25% should the originator and servicer's combined credits exceed 25%.

Appendix 3. Peak-to-Trough Home Price Forecast Model

RMBS Insight includes a base home price forecast. The forecast is at the series level of the Case-Shiller index. The forecast is the output of a model built to estimate the peak-to-trough level of house price declines. The approach taken in building the model is to commonalities between past incidents during which prices have fallen substantially.

DATA

The modeling data set consists of 20 series from the Case-Shiller data which exhibited a steep fall in house prices after a two-year increase, with the peak occurring prior to the year 2000. The 20 geographies are mostly located in California, Texas and the Northeast. The peaks occur in the early 1980's to the early 1990's. Table 11 gives the 20 geographies used and summary data.

Table 11. The 20 Geographies

	Series	MSA	County	State	Peak Month	% Increase Prior 2 Years	% Total Decline
1	CAC037Q	Los Angeles-Long Beach-Glendale, CA	Los Angeles	CA	199005	32	-29
2	CAC045S	N/A	Mendocino	CA	199005	31	-18
3	CAC047S	Merced, CA	Merced	CA	199011	35	-16
4	CAC065Q	Riverside-San Bernardino-Ontario, CA	Riverside	CA	199005	30	-30
5	CAC067Q	Sacramento--Arden-Arcade--Roseville, CA	Sacramento	CA	199008	46	-25
6	CAC071Q	Riverside-San Bernardino-Ontario, CA	San Bernardino	CA	199008	30	-27
7	CAC077Q	Stockton, CA	San Joaquin	CA	199008	30	-20
8	CAC099Q	Modesto, CA	Stanislaus	CA	199005	41	-20
9	CAC113S	Sacramento--Arden-Arcade--Roseville, CA	Yolo	CA	199011	48	-16
10	CTC003S	Hartford-West Hartford-East Hartford, CT	Hartford	CT	198808	38	-22
11	CTC005S	N/A	Litchfield	CT	198902	16	-19
12	CTC009S	New Haven-Milford, CT	New Haven	CT	198811	25	-18
13	CTC011S	Norwich-New London, CT	New London	CT	198905	22	-18
14	CTC013S	Hartford-West Hartford-East Hartford, CT	Tolland	CT	198811	39	-21
15	MAC013Q	Springfield, MA	Hampden	MA	198908	16	-24
16	MEC001O	Lewiston-Auburn, ME	Androscoggin	ME	198911	27	-14
17	NJC029Q	Edison-New Brunswick, NJ	Ocean	NJ	198805	44	-22
18	OKC109Q	Oklahoma City, OK	Oklahoma	OK	198308	17	-30
19	TXC135O	Odessa, TX	Ector	TX	198302	21	-37
20	TXC329O	Midland, TX	Midland	TX	198205	32	-36

APPROACH

The approach is to look for consistencies in the behavior of house prices after the peak. To facilitate the search, the variables are expressed in terms that are comparable across situations. The following variables are defined:

- The proportion of the total decline yet to be experienced. This metric allows comparisons between markets, yet the total price decline can easily be calculated from it since the decline-to-date is known. This variable is monthly.
- The ratio of price decline to date to the increase in the two years prior to the peak.
- The number of months since the peak.

MODEL

The dependent variable of the model is the proportion of the total decline yet to be experienced. The other two variables are the explanatory variables. The effects are introduced in a nonlinear way via linear splines.

The model is fit by averaging the coefficients across 5000 bootstrap samples. Each sample selects a single observation from each of the 20 geographies. A bootstrapping approach was selected to avoid the dependency of errors within a geography.

Within the Case-Shiller universe, there are 302 series (single family, total index) that have experienced a peak prior to 2010 and whose increase in prices in the two years prior to the peak was at least 10%. To evaluate the stability of the model, the total peak-to-trough decline is estimated by the model at four time periods. The results are presented in Table 12. As seen, the model projection has been very stable since June, 2008. This suggests that the current declines are following a pattern similar to those seen in the past.

Table 12. Model Stability

Forecast Date	Projected Peak-to-Trough Decline (%)
12/2010	34.3
6/2009	38.0
6/2008	37.7
6/2007	21.1

MODEL STRESSES

The distribution of the geographic average of future decline can be estimated from the model. The values across geographies are certainly correlated. The average correlation of the percent change in house price across the geographies is 50%. That value is used when calculating the standard error of the mean. The ability to estimate percentiles of the house price distribution is an important component of the ratings categories methodology.

Appendix 4. Model Validation

SUMMARY

Upon the completion of RMBS Insight, DBRS conducted validations of the model results by comparing them against actual historical performance. The validation is done for both probability of default and loss severity.

PROBABILITY OF DEFAULT VALIDATION

Referring to Figure 1 in the "Modeling Methodology" section, a validation of the default model is tantamount to validating the probability that the loan ever becomes 180 days delinquent. The remainder of the calculation to arrive at default – the roll from 180 days delinquent to default – is a user input.

The process of producing the validation is as follows:

1. A random sample of 5,000 loans is taken from each of the target populations.
2. The actual proportion of loans ever to become 180 days delinquent, charged off or REO is calculated.
3. The actual CPR experience of the pool is calculated.

RMBS Insight is run using the actual CPRs and without shrinkage. The latter is not applicable as the loans are not from a single deal. Setting the "D180->Default" roll rate to 1 results in a default estimate that is the same as the loan ever becoming 180 days delinquent. Note that RMBS Insight will automatically index the house prices from origination using Case-Shiller data. The model 180 day delinquency rate is the lifetime total balances expected to become 180 days delinquent as a percentage of the starting pool balance.

To demonstrate RMBS Insight's ability to operate in disparate economic climates, Table 13 shows the results for the 2003 and 2007 vintages. Each row represents the forecast and actual performance of 5,000 loans scored from origination. The actual 180 day delinquency rate is total balances actually becoming 180 days delinquent (or charged off or in REO) to date. The data is as of April 30th, 2011. The "Difference" column gives the estimated remaining percentage of the original pool to become 180 days delinquent. The "Future D180 Rate" is the future expected 180 delinquency rate as a percentage of loans that are under 180 days delinquent in the current pool. Finally, the "DQ 180+" column gives the percentage of the current pool balance that is 180+ days delinquent.

Examining Table 13, one is first struck by the dramatic difference in performance between the two vintages. The forecast for the 2007 vintages is 7 to 19 times higher. Secondly, RMBS Insight tracks the actual performance very well. Note that the 2003 vintage was not entirely immune from the recession and housing bust – events not anticipated by a forecast from 2003. In considering the 2007 vintage, it is important to realize that the final results are not known. However, the vintage is much farther through the process of producing loans that are 180 day delinquency curve than it is the default curve.

Table 13. Cumulative 180 Day Delinquency Rates by Vintage and FICO Range (From Origination)

Category	Model	Actual To Date	Difference	Future D180 Rate[1]	DQ 180+[2]
	Ever 180 Days DQ (% of Original Pool Balance)				
2003 Vintage (all Loans)					
FICO					
FICO <= 625	10.2%	12.7%	-2.5%	--	15.8%
FICO: 626-679	5.3%	7.6%	-2.3%	--	11.4%
FICO: 680-719	2.8%	2.5%	0.3%	2.7%	5.3%
FICO: >=720	1.6%	1.4%	0.2%	1.8%	3.6%
2007 Vintage (all Loans)					
FICO					
FICO <= 625	70.5%	58.0%	12.6%	35.1%	39.8%
FICO: 626-679	65.2%	56.0%	9.2%	26.0%	39.0%
FICO: 680-719	50.3%	45.6%	4.7%	11.7%	30.8%
FICO: >=720	29.9%	25.3%	4.6%	10.9%	18.6%

[1] *Future 180 day DQs as a % of loans that are under 180 days DQ, as of 4/30/2011.*
[2] *Percent of the current pool balance that is 180+ days DQ.*

LOSS SEVERITY VALIDATION

The validation of the recovery model is conducted in a similar manner. The recovery model is run on samples of loans that have been liquidated. For each loan, the origination appraisal is updated to the liquidation date using the Case-Shiller home price index. The recovery model is applied and loss is calculated. The average severity for each group is calculated as total loss divided by total balance at charge-off. Each group in the tables is a random sample of 5,000 liquidations taken from each of the target populations.

Table 14 gives the results for loans liquidated in two years: 2007 and 2010. The results are segmented by FICO range. The average loan age at the time of liquidation is also given. Noticeable is the large increase in severity and average loan age between the two periods. There is also a notable relationship between the FICO ranges and average severity.

Table 14. Severity by Liquidation Date and FICO Range

Category	Severity		Loan Age
	Model	Actual	
2007 Liquidation			
FICO			
FICO <= 625	38.7%	37.2%	32
FICO: 626-679	33.0%	30.8%	29
FICO: 680-719	27.2%	26.3%	28
FICO: >=720	19.2%	23.1%	28
2010 Liquidation			
FICO			
FICO <= 625	68.5%	69.6%	49
FICO: 626-679	63.7%	63.0%	48
FICO: 680-719	59.5%	56.9%	47
FICO: >=720	56.1%	53.5%	46

Appendix 5. Rating Category Models

MODELS

The models used to drive the ratings categories are:

1. Peak-to-trough model of house prices (to address the identifiable risk).
2. D180 correlation model (to address the unidentifiable risk).
3. Recoveries correlation model.

The D180 correlation model is discussed first, then the recoveries correlation model and finally the algorithm for arriving at ratings categories.

The D180 correlation is estimated through an analysis of the same data that produced Figure 7a in the "Shrinkage" section. To the extent that the variation in Figure 7a exceeds that which can be attributed to Causes 1 and 2, it is ascribed to correlation between the loans.

The 'basic' correlation model is specified as follows. Let

$$X_j = \begin{cases} 1 \text{ if } j^{th} \text{ loan is 180 days delinquent within 2 years.} \\ 0 \text{ otherwise} \end{cases}$$

and

$$P[X_j = 1] = p_j$$

for $j=1,\ldots,n$.

Now define

$$X_j = I(T_j <= F^{-1}(p_j)),$$

where,

$T_j = aZ_j + bZ$

$a^2 + b^2 = 1,$

Z_j, Z are iid N(0,1)

I( ) is 1 if the quantity in the parentheses is 1 and 0 otherwise.

F^{-1} is the inverse function of the standard normal distribution.

We see that X_j satisfies the two conditions at top and note that

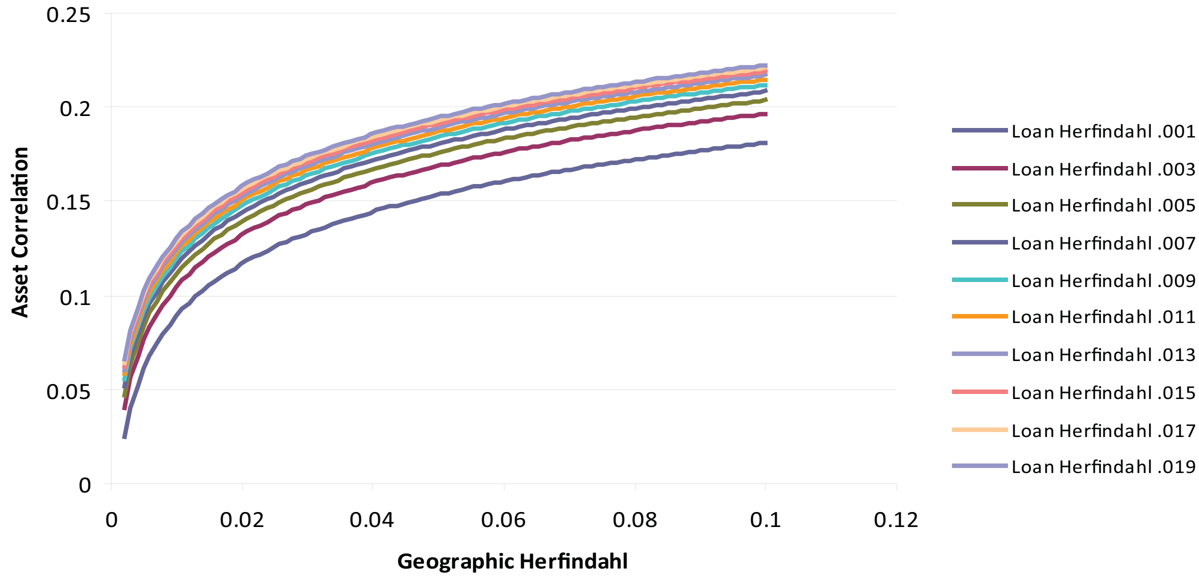
T_j is N(0,1)

$Cor(T_j, T_k) = b^2$

Z can be referred to as the latent variable – its value is unobserved but can be inferred given a value for *b*. A (normalized) Herfindahl index based on geography (MSA level) and loan size is calculated for each of the deals. A parametric model which is a function of the two concentration measures and credit quality is fit using the specification above. The data for the model fit are the expected and actual outcomes for 2891 deals. The expectation is the output of the delinquency score. The parameters determine the asset correlation for each deal which in turn specifies the value of *b* for the deal. Given *b* for deal *j* permits the estimation of *Z* for that deal. The parameter values are chosen so the *Z*'s satisfy the model assumptions for them.

Figure 9 shows the correlation between X_i and X_j as a function of the Herfindahl indices implied by the data. As can be seen, the data supports the premise that correlation (and hence risk) increases with concentrations.

Figure 9. Asset Correlation by Concentration



In interpreting the estimated D180 correlations, there are two important factors to consider:

1. Any correlation has a large effect.

   Moving from a model of no correlation to a model of correlation has a large impact on the statistical properties of the portfolio default distribution. In particular,

   - The mean is no longer a consistent estimator and the portfolio variance does not collapse toward zero.
   - The Central Limit Theorem no longer applies. There is a limiting distribution. It is not normal.

2. The correlation is conditional on the future value of house prices.

   - One would find a much larger correlation if one estimated the correlation from score values in which the future house prices vary from the actual. The effect of that exercise would be to move house price risk from being an identifiable risk to an unidentifiable risk.

The recoveries correlation model is similar in spirit to the D180 model. Specifying the recovery rate distribution is really specifying the distribution of the residuals from the recovery rate model. A correlation-based model is used. The model specification is as follows:

$e_i = (\mathrm{sqrt}(s)*L + \mathrm{sqrt}(1-s)*L_i)*\mathrm{b}$, $i=1,..,n$

where,

$e_i = R_i - \mathrm{E}[R_i]$, is the residual between the recovery on the i^{th} loan and its expected value (model output),

$L, L_1,..,L_n$ are *iid* Logistic (0,1) random variables (0 is the location parameter, 1 is the scale parameter; L has mean 0 and variance $p^2/3$),

b is the scale parameter,

s is the recovery correlation.

The logistic distribution is used because it is seen to be a good fit to the data.

It is important to remember that since $\mathrm{E}[R_i]$ is a function of future house prices, that this distribution is conditional on future house prices.

IMPLEMENTATION OF CORRELATION MODEL

The D180 and recoveries distribution are very complex. There is no closed form solution for either of them. They depend on the complete set of loan-level values. For example, a single large loan in a portfolio can have a material impact on the balance-weighted portfolio-average D180 distribution. Even though neither distribution can be written down, both can be determined via simulation methods. For the D180 distribution, simulating the Z_i's and Z generates a realization of the X_i's. These can then be averaged to produce a realization from the balance-weighted, portfolio-average D180 distribution. Repeating the process permits estimation of any desired percentile of the distribution.

IMPLEMENTATION OF RATING CATEGORIES

The probabilities associated with the rating categories are from the DBRS published idealized default table.

The process for producing the default estimates for each rating is as follows:

1. The MVD scenarios are derived from the peak-to-trough model. Given a probability, p, the $(1-p)^{th}$ quantile of the national average MVD distribution is found. The value of p for each rating category is chosen from the DBRS published idealized default table, matching the tenor to the weighted-average life of the collateral.

2. For each MVD, the balance-weighted, portfolio-average D180 rate and the balance- and default-weighted, portfolio-average recovery rate distributions are found via simulation.

3. The appropriate value of 2-year D180 for each category is found. The value satisfies the requirement that the unconditional probability the D180 rate exceeds it equals the target probability (from the DBRS published idealized default table). The unconditional probability is given by:

   $$P[D>t] = \quad P[D>t|h]f(h)dh$$

   Where,

   D is the 2-year D180 rate,

   $P[D>t|h]$ is the probability the 2-year D180 rate exceeds t given the MVD is h (this is the output of the correlation model discussed above),

   $f(h)$ is the pdf of house prices (MVD). This distribution is the output of the peak-to-trough model.

   For computational efficiency, the integral is approximated by dividing the MVDs into buckets

4. Similarly, the unconditional balance and default weighted recovery distribution is given by:

   $$P[R<=t] = \quad P[R<=t|h]f(h)dh$$

   Where,

   R is the balance and default weighted portfolio average recovery rate,

   $P[R<=t|h]$ is the probability the recovery rate is less than t given the MVD is h $f(h)$ is the pdf of house prices (MVD). This distribution is the output of the peak-to-trough model.

   For computational efficiency, the integral is approximated by dividing the MVDs into buckets.

5. Once the portfolio-level D180 and average recovery rates are determined for each rating category, they are pushed down to the loan level and the remainder of the model is run.

In pools with high base case expected losses, gap between any two rating categories can be compressed and therefore can be subject to rating volatility. In RMBS Insight, DBRS implements a minimum step-up in losses between any two rating categories for high-loss pools. Specifically, for pools with expected losses exceeding 40%, a minimum step-up in losses of 5% is necessary. The step-up phases in linearly starting with pools with expected losses of 10% (3% minimum) to 40% (5% minimum). For example, a pool with expected loss of 25% will have a minimum step-up of 4.5% in between any two rating categories.

Appendix 6. DBRS Idealized Default Table

	Maturity in Years									
Rating	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
AAA	0.0110%	0.0264%	0.0460%	0.0699%	0.0987%	0.1330%	0.1736%	0.2212%	0.2765%	0.3405%
AA (high)	0.0161%	0.0390%	0.0691%	0.1071%	0.1539%	0.2107%	0.2784%	0.3580%	0.4501%	0.5554%
AA	0.0212%	0.0517%	0.0922%	0.1442%	0.2091%	0.2883%	0.3832%	0.4948%	0.6237%	0.7703%
AA (low)	0.0281%	0.0709%	0.1297%	0.2055%	0.2994%	0.4123%	0.5445%	0.6962%	0.8672%	1.0571%
A (high)	0.0419%	0.1095%	0.2045%	0.3280%	0.4801%	0.6602%	0.8671%	1.0991%	1.3543%	1.6306%
A	0.0487%	0.1287%	0.2419%	0.3893%	0.5704%	0.7841%	1.0283%	1.3005%	1.5978%	1.9173%
A (low)	0.0945%	0.2420%	0.4391%	0.6815%	0.9643%	1.2825%	1.6309%	2.0045%	2.3990%	2.8101%
BBB (high)	0.1860%	0.4685%	0.8333%	1.2659%	1.7521%	2.2792%	2.8359%	3.4126%	4.0013%	4.5956%
BBB	0.2318%	0.5818%	1.0305%	1.5581%	2.1460%	2.7776%	3.4384%	4.1166%	4.8024%	5.4884%
BBB (low)	0.3732%	0.8912%	1.5142%	2.2099%	2.9528%	3.7230%	4.5053%	5.2884%	6.0636%	6.8252%
BB (high)	1.0800%	2.4384%	3.9327%	5.4686%	6.9863%	8.4500%	9.8400%	11.1473%	12.3697%	13.5091%
BB	1.3627%	3.0573%	4.9001%	6.7721%	8.5997%	10.3408%	11.9738%	13.4908%	14.8921%	16.1826%
BB (low)	2.2346%	4.7297%	7.2541%	9.6836%	11.9572%	14.0507%	15.9604%	17.6938%	19.2641%	20.6863%
B (high)	3.6297%	7.4056%	11.0204%	14.3419%	17.3292%	19.9866%	22.3389%	24.4186%	26.2592%	27.8922%
B	4.8503%	9.7471%	14.3160%	18.4179%	22.0296%	25.1805%	27.9201%	30.3028%	32.3799%	34.1974%
B (low)	10.0776%	17.6609%	23.5135%	28.1371%	31.8670%	34.9314%	37.4891%	39.6528%	41.5044%	43.1047%
CCC (high)	18.7898%	30.8505%	38.8426%	44.3357%	48.2625%	51.1831%	53.4376%	55.2363%	56.7119%	57.9502%
CCC	22.2746%	36.1264%	44.9743%	50.8151%	54.8208%	57.6837%	59.8169%	61.4696%	62.7949%	63.8884%
CCC (low)	61.1373%	68.0632%	72.4872%	75.4076%	77.4104%	78.8419%	79.9085%	80.7348%	81.3974%	81.9442%
C	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%

Insight beyond the rating.

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Exhibit D

Lesson: QAS Overview

The following is a high-level account of Fannie Mae's current National Underwriting Center (NUC) Quality Assurance review process. (See Figure 1 for a visual representation.) This process is subject to change at any time in Fannie Mae's discretion.

1.0 NUC Review Process

1. Loans are selected for review by the National Underwriting Center (NUC).
2. Loan files are requested from the lender.
3. The lender provides the loan file to Fannie Mae via paper or a business-to-business data exchange.
4. NUC reviews the loan file for completeness, and requests any missing documents.
5. Supplemental documents are submitted by the Lender as requested by the National Underwriting center.
6. An underwriter reviews the loan file and records any defects both significant and informational.
7. If significant defects are identified the underwriter would recommend that the loan be repurchased by the lender.
8. Upon validation of the significant defect(s) and determination that the loan does not meet Fannie Mae criteria, a request for repurchase is sent to the lender.
9. The lender responds with a Concur or Rebut.

QAS serves as the conduit to streamline this communication process for both NUC and the lender community.

2.0 Underwriting Performance Review Types

The primary types of underwriting reviews performed by Fannie Mae's National Underwriting Center are:

- **PPR**: Post Purchase Reviews
- **EPD**: Early Payment Default
- **LOS:** Loss Mitigation Review
- **PFR:** Post Foreclosure Review
- **RV**: Recourse Violation
- **MBS**: Mortgage Back Securities

NUC High Level Overview – Review Process

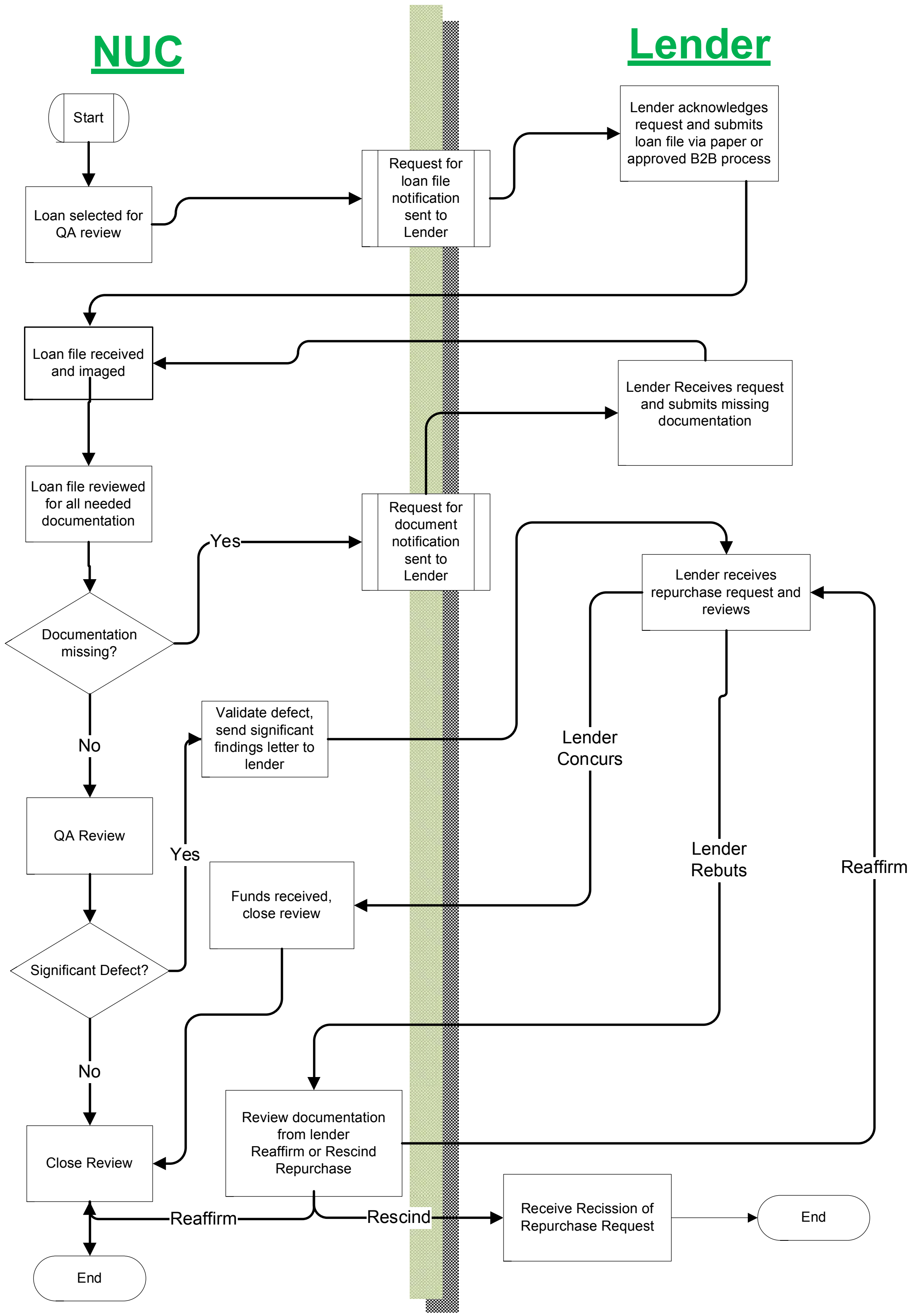

Figure 1: Fannie Mae Review Process – High Level Overview

Exhibit E

Wells Fargo Funding

WELLS FARGO

Repurchase and Rescission Process Overview

October15, 2010

A New Reality for Repurchase and Rescission Requests

In today's mortgage market, repurchase and rescission requests from investors and mortgage insurance companies (MI companies) have become commonplace. This has been driven by the increase in delinquent borrower accounts, as well as the liquidation of foreclosed properties. These macro-economic changes have prompted increased investigation into potential breaches of representations and warranties.

Wells Fargo is committed – just like you are - to honoring contractual obligations with investors and mortgage insurance (MI) companies*. We want to ensure that the resolution process for Repurchase and Rescissions is as smooth and swift as possible.

Some demands can be rectified simply by obtaining missing documents. But more often, as you know, the demand process is more complex. Demands are generally received in connection with misrepresentation of income, occupancy, employment, or regarding undisclosed debt or mortgages, and valuation concerns.

Improvements to the Process

Because of the complexity of each demand, the numerous ways to resolve them, and the seriousness of these issues to both of our businesses, Wells Fargo is taking steps to improve the demand process.

Here are some changes and tools we're implementing to improve the process:

- **Enhancing communication and collaboration** with our clients by:
    - Engaging you as early as possible.
    - Working closely with you to clear deficiencies discovered on the loan during investor audits.
- **Repurchase and Rescission Scenarios Exhibit** – This document provides insight on how Wells Fargo approaches many of the most common demand issues.
- Improving our demand process (outlined below), effective October 18, 2010

**In this communication, investors and MI companies are collectively referred to as "investors" and reference will be made to both repurchase demands and MI rescissions jointly as "demands".*

Overview of Wells Fargo's Demand Process – Effective October 18, 2010

Step 1

Wells Fargo receives a deficiency notice or demand from the investor. Typically, Wells Fargo has 60 days to resolve the issue.

Step 2

Wells Fargo notifies the Seller and provides supporting documentation when available. At this time, the **Seller is given twenty-one calendar days to provide an explanation**, facts or documentation to demonstrate that the mortgage loan complies with the requirements. If the Seller does not respond within 14 days of the initial notice, Wells Fargo will follow up with the Seller.

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(Continued on page 2)

Wells Fargo Funding

WELLS FARGO

Repurchase and Rescission Process Overview

October15, 2010

Overview of Wells Fargo's Demand Process *(Continued)*

Step 3
Wells Fargo will begin internal research (concurrently with Step 2) to resolve the loan issues. During this process, Wells Fargo will **determine if there is a missing document** and if the document can be located.

For all other issues, Wells Fargo will perform research to determine if there is evidence that proves or disproves the validity of the issue. For example, if the investor provided a review appraisal indicating a value deviation, Wells Fargo will order an independent appraisal review of the origination appraisal and the investor's review appraisal from a third party vendor.

Step 4
The Seller responds to Wells Fargo's request and either agrees with the investor's findings or provides an explanation, missing documents or information for Wells Fargo to utilize in drafting an appeal to the demand or MI rescission notification.

If an appeal is not practical, based on all the information collected, Wells Fargo will notify the Seller, allowing them a final opportunity to provide additional documentation.

If an appeal is submitted to an investor, the Seller will be notified of the result of the appeal. If the Seller provided a response that specifically addressed the investor's issues and the investor deems the information to be insufficient to rescind the repurchase demand or MI rescission, **the Seller will be given** seven (7) **calendar days** to provide **new documentation** to support a second appeal. *(Please note: Even if documents are provided by the Seller, the appeal may not be successful).*

If attempts to refute the demand or MI rescission are unsuccessful, Wells Fargo will be obligated to repurchase the loan from the investor or accept the MI rescission. Likewise, Wells Fargo will issue a demand to the Seller for the repurchase of the mortgage loan pursuant to the provisions of the Loan Purchase Agreement or reimbursement for costs and expenses, if applicable.

Questions?

- Send repurchase letter questions to our mailbox at IRMRepurchaseResponses@wellsfargo.com. The mailbox is monitored daily with replies to inquiries completed within 3 business days, or
- You may contact a member of your regional sales team.

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Shared Vision, Shared SuccessSM. Together, we can achieve long-term industry success. Learn more today.

Wells Fargo Funding

Repurchase and Rescission Scenarios Exhibit

When an MI rescission or repurchase demand is received by our Wells Fargo Repurchase Operations team, Wells Fargo will research the issues to determine if there was a breach of a representation or warranty, or non-compliance with a term of the Mortgage Insurance policy.

- If there is **no** breach, the analyst will appeal the repurchase demand or MI company decision.
- If there **is a** breach, the analyst will recommend the loan for repurchase. If the loan is recommended for repurchase, the recommendation is escalated for a second level review. The final determination to repurchase or appeal the demand is made in the second level review.

The matrix on the following pages provides insight into how Wells Fargo analysts review each demand to help determine if there is a breach of a representation and warranty. Examples provided in the matrix are not all inclusive, but represent some of the more common and complicated types of MI rescissions or repurchase demands.

Note: *This information is provided as general guidance only and does not change, alter or modify any contractual obligations between Wells Fargo and the Correspondent Seller. Individual cases may vary. Information provided below is subject to change at any time and without notice.*

	Scenario	Action/test performed by Wells Fargo	How you can help
1	**Undisclosed Debt** **Definition:** The borrower has additional debt that was obtained prior to the closing of the subject loan, but it is not reflected on the origination credit report or application. It is not included in the qualifying ratios for the subject loan.	▪ Was debt included in the original underwriting calculations? ▪ What date was the debt opened? If it was opened in the same month as the loan closing date, the exact date must be verified to ensure that the debt was opened **prior to closing.** ▪ Does the new DTI, including the undisclosed debt, exceed the allowable DTI for the program?	▪ Provide evidence that the debt was included in the qualifying debt ratio. ▪ Provide documentation that the debt was opened after the subject loan closing date. ▪ Provide debt ratio calculations documenting that the debt ratio would have remained at an acceptable level. ▪ Provide documentation that the debt or a portion of the debt was eligible for exclusion from the debt ratio (e.g. provide lease if the property was a rental).

WELLS FARGO

Repurchase and Rescission Scenarios Exhibit

	Scenario	Action/test performed by Wells Fargo	How you can help
2	**Occupancy Misrepresentation** **Definition:** The occupancy of the subject property is misrepresented in an effort to obtain more favorable financing options.	The decision to repurchase for this breach is based on an evaluation or weighting of the evidence presented. As a general principle, Wells Fargo considers occupancy misrepresentation documented if the answer is "yes" to at least two of the following: **Closing Documentation** 1. Does the appraisal indicate that the property is tenant-occupied? 2. Is the homeowner's declaration page reflecting a landlord policy? 3. For a refinance - is the documentation provided to verify income and/or assets reflecting a different address for the borrower? 4. Is the distance between the subject property and the borrower's employment unreasonable for commuting? **Post-closing Documentation** 5. Is the property tax statement for the borrower reflecting a different mailing address? 6. Did the borrower change their mailing address for servicing communication? 7. Does a reverse directory search of the borrower's home phone reflect a different home address? 8. Is there documented verification that the utilities are not and have not been in the borrower's name? 9. Are there public records (driver's license, voter registration, homestead exemption) that indicate the borrower never moved into the property? 10. Do the bankruptcy discharge papers indicate a different home address for the borrower for the timeframe following closing? 11. Is there documented communication between the borrower and a third party investigator indicating the borrower never occupied the subject property?	▪ Provide documentation that proves that the borrower occupied/ occupies the subject property. ▪ If the borrower intended to occupy the property, but did not, provide an explanation for the extenuating circumstances that prohibited the borrower from moving into the property. ▪ Offer an explanation and documentation to refute the evidence provided (e.g. the address that the borrower is utilizing for servicing correspondence and property tax records is actually their business address).

Repurchase and Rescission Scenarios Exhibit

	Scenario	Action/test performed by Wells Fargo	How you can help:
3	**Income Misrepresentation** **Definition:** The income information and/or documentation that were provided at origination were either altered or falsified.	▪ Does the new income documentation provided reflect the same time period as the 1003 application? ▪ Is the new income documentation re-verifiable? If re-verification is not possible, is the investor's documentation clear and complete? ▪ Was the original documentation altered or falsified? ▪ Does the DTI utilizing the new income exceed an allowable DTI for the program?	▪ Provide documentation that the verification provided does not represent the same time period as the 1003 application. ▪ Provide new documentation (verbal or written) that supports the original income documentation.
4	**Employment Misrepresentation** **Definition:** The employment status (self employed vs. W-2; Full time vs. Part time), dates or job title are misrepresented on the loan application and supporting documentation.	▪ Does the documentation provided reflect the same time period as the 1003? ▪ Are the differences in employment substantial? E.g. was the verified profession essentially the same as the stated profession (supervisor vs. manager). ▪ Is the documentation re-verifiable? If re-verification is not possible, is the investor's documentation clear and complete?	▪ Provide documentation that the verification provided does not represent the same time period as the application. ▪ Provide new documentation that supports the original verification.

Repurchase and Rescission Scenarios Exhibit

	Scenario	Action/test performed by Wells Fargo	How you can help:
5	**Valuation/Appraisal Misrepresentation** **Definition:** The original appraiser did not follow USPAP or FIRREA standards when developing the origination appraisal.	Wells Fargo will order an independent third party review of the origination appraisal and the review appraisal from a vendor (at Wells Fargo expense). As part of the review process, the vendor will: ▪ Obtain a property detail report for the subject property that contains an aerial photo of the subject property and additional sales, ▪ Verify the sale date, price and history for all sales referenced within any of the appraisal reports provided, ▪ Verify the appraiser's licensure, ▪ Ensure that the appraiser was appropriately licensed as of the effective date of the appraisal and make note if the license had been revoked at any time, ▪ Analyze market conditions as of the effective date of the appraisal and pull additional market trend data if necessary, ▪ Summarize all items of note, in the form of an e-mail, to be addressed by the original appraiser. MLS sheets for the sales that have been utilized will also be requested, in addition to any other additional local market support that is available. Items of note will include, but are not limited to: ○ Concerns or discrepancies noted by the local market review, ○ Concerns noted within the MI Rescission letter or Demand Request, ○ Reviewer concerns not noted by the local market review or rescission letter. After a response is received from the original appraiser, the vendor makes a determination about whether or not the value was supported as of the effective date of the appraisal. The Wells Fargo analyst will determine the following: ▪ Does the review support the original value? ▪ Does the reviewer state that the original appraisal contains USPAP or FIRREA violations?	▪ Encourage the origination appraiser to provide the Wells Fargo vendor with all requested documentation. ▪ Provide an independent review appraisal that supports the original appraisal.

Repurchase and Rescission Scenarios Exhibit

	Scenario	Action/test performed by Wells Fargo	How you can help:
6	**Missing Docs** **Definition:** One or more required documents were not delivered to the investor.	▪ Was the document applicable or required? ▪ Can the document be located on the Wells Fargo imaging system? ▪ Can the document be retrieved by contacting the original provider (e.g. missing title policy)?	▪ Provide the document that is being requested. ▪ Provide evidence that the document was not required or applicable. ▪ Can the document be retrieved by contacting the original provider or a third party vendor (e.g. missing title policy)?
7	**Compliance** **Definition:** Investor determines that the loan did not meet State, Federal or Agency guidelines or regulations.	Wells Fargo's Compliance Department will conduct a compliance review specific to the compliance issue raised by the investor. Their review includes: ▪ A determination as to whether the cited regulation applies to the loan, ▪ Testing the loan according to the appropriate regulations. Wells Fargo determines the following: ▪ Did the loan pass the compliance test? ▪ If the loan did not pass, do the specified regulations provide for a curing of the issue?	▪ Provide the original compliance testing calculations and results indicating a pass for the issue identified by the investor. ▪ Provide evidence that the regulation is not applicable to the loan. ▪ Provide proof that the issue was cured prior to delivery, if allowable and applicable. ▪ Provide documentation to prove that the loan passes the compliance test (For example, if failure is fee based, provide documentation that certain fees can be excluded from the test, such as bona fide discount points).

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Repurchase and Rescission Scenarios Exhibit

Frequently Asked Questions

1) Why wasn't my response used in the appeal to the investor?

Answer: Wells Fargo has a direct contractual relationship with its end-investors, and Wells Fargo believes it is more effective and efficient for Wells Fargo to communicate directly with the end-investors with one concise message. Your responses are instrumental in the analysis of the repurchase demands, as well as the drafting of thorough appeals to the end-investors' findings.

2) Why can't Wells Fargo share servicing notes and/or any subsequently pulled borrower credit reports with the correspondent clients?

Answer: Servicing notes and borrower credit reports contain the borrower's sensitive, non-public financial information. The disclosure of this information is heavily regulated. Wells Fargo takes its responsibility to protect this sensitive borrower information very seriously. Wells Fargo's disclosure policies ensure compliance with consumer privacy laws and the Fair Credit Reporting Act.

3) Why is there sometimes such a significant period of time between when Wells Fargo purchases the loan and when they advise me of a breach?

Answer: Frequently, issues that occurred during the origination of the loan are not apparent until much later (often times during the foreclosure process).

4) On a loan where the underwriting was completed on a "prior approved" basis, why am I liable for defects with the appraisal such as appraiser fraud?

Answer: For these loans, under the terms of the contract between the Seller and Wells Fargo, the Seller retains liability for issues connected with the appraisal that are not underwriter error.

Exhibit D

William J. Nolan

Senior Managing Director — Corporate Finance/Restructuring

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Education

B.S. in Economics, University of Delaware

M.B.A. in Finance, Wharton School of Business, University of Pennsylvania

Professional Affiliations

American Bankruptcy Institute

Association of Insolvency & Restructuring Advisors

Turnaround Management Association

William Nolan is a senior managing director in the FTI Consulting Corporate Finance/Restructuring practice and is based in Charlotte. Mr. Nolan has worked in all areas of corporate recovery, including working with senior management in business turnarounds and corporate bankruptcy. He has more than twenty years of diverse financial consulting and management experience.

Mr. Nolan has considerable experience working with senior management teams in the areas of financial and operational restructuring, loan workouts and business planning. He has assisted management in developing business plans, devising short to medium term financial strategies and projections for use in troubled debt restructures, and implementing controls over cash expenditures, overhead and operating costs.

Mr. Nolan's diverse background extends into financial services, manufacturing, restaurants, healthcare, and real estate, wherein he has served as advisor to companies, secured creditors, and unsecured creditors' committees in out-of-court and in bankruptcy distressed situations.

Mr. Nolan has extensive experience in the restructuring of companies in the financial services industry. Some of the restructurings in the financial services industry in which Mr. Nolan has been engaged include acting as financial advisor to the Debtors in the Chapter 11 bankruptcy of MF Global Holdings, LTD; advisor to the unsecured creditors of Advanta Corp, a large issuer of business credit cards; financial advisor to the secured creditors of Credit-Based Asset Servicing and Securitization LLC (C-BASS), a large RMBS investor and loan servicer; advisor to the unsecured creditors of The Education Resources Institute, Inc., the nation's largest guarantor of private loans for education; and advisor to the unsecured creditors of Refco Inc., a large commodities broker. Other representative engagements in the financial services industry in which Mr. Nolan has been engaged include People's Choice Financial Corporation; Mortgage Lenders Network USA, Inc.; ResMae Mortgage Corporation; First NLC Financial Services, LLC; Alliance Bancorp; Mortgage Corporation of America; American Business Financial Services, Inc.; ContiFinancial Corp; United Companies Financial Corp; The Thaxton Group, Inc.; Oakwood Homes Corporation; First Alliance Mortgage Company; Criimi Mae Inc; Fidelity Bond and Mortgage Company, and others.

Prior to its acquisition by FTI Consulting, Mr. Nolan served as a partner in the U.S. division of PwC's Business Recovery Services group. Prior to joining PwC, Mr. Nolan held an executive financial management position with the Pizza Hut division of PepsiCo, Inc.

Mr. Nolan holds an M.B.A. in finance from the Wharton School of Business at the University of Pennsylvania and a B.S. in economics from the University of Delaware. He is a member of the American Bankruptcy Institute and the Association of Insolvency & Restructuring Advisors.

Publications:

- Mortgage and Asset Backed Securities Litigation Handbook, West Law, 2008
    - Co-Author of Chapter: "Description of the Mortgage and Asset-Backed Securities Markets, Roles of Principal Participants and Key Terms"
- "The Un-real World of Troubled REITs", ABI Journal, 2001
- "When Are Servicing Rights Born?", American Banker, 2000
- "Fight for Survival: Sub-prime Lending Where to Go From Here", American Banker,1999

Testimony Experience:

- *In re M. Fabrikant & Sons, Inc. and Fabrikant-Leer International, Ltd.,*

  Shared Assets Trust v. Matthew Fortgang, et al., - prepared a declaration on insolvency; gave a deposition in support of the declaration, the matter settled before trial

  US Bankruptcy Court for the Southern District of New York

Exhibit E

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Proposed Counsel for the Debtors and
Debtors in Possession

UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF NEW YORK

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

DECLARATION OF WILLIAM J. NOLAN IN SUPPORT OF DEBTORS' MOTION PURSUANT TO FED. R. BANKR. P. 9019 FOR APPROVAL OF THE RMBS TRUST SETTLEMENT AGREEMENTS

I, William J. Nolan, being duly sworn, depose and say:

1. I am a Senior Managing Director in the Corporate Finance practice of FTI Consulting, Inc. ("FTI"). FTI's Corporate Finance practice is one of the largest restructuring and reorganization advisory practices in the country. FTI's Corporate Finance practice is successor to PricewaterhouseCoopers's ("PWC") Business Recovery Services practice. Prior to joining FTI, I was a Partner at PWC. I am a member of my firm's Real Estate and Structured Finance practice group and I have over 20 years of experience providing financial advisory services to debtors and creditors. FTI currently

is serving as financial advisor to Residential Capital, LLC ("ResCap") and the other above-captioned debtors and debtors-in-possession (collectively the "Debtors").

2. I submit this declaration (the "Declaration") on behalf of the Debtors in connection with their motion pursuant to Rule 9019 of the Federal Rules of Bankruptcy Procedure for approval of the RMBS Trust Settlement Agreements. This Declaration reflects the work performed to date, and I reserve the right to augment and refine the analysis.

QUALIFICATIONS

3. FTI was first engaged by ResCap in March 2007 to provide financial advisory services and has been periodically reengaged by the Debtors since that time. Since March 2007, FTI has developed a great deal of institutional knowledge regarding the Debtors' operations and finances. Since August 2011, Gina Gutzeit, an FTI Senior Managing Director, and I have been the primary contacts at FTI responsible for providing ResCap with financial advisory services, including, but not limited to, the evaluation of strategic alternatives, bankruptcy planning, bankruptcy operational readiness, cash flow analysis, and planning and general restructuring advice.

4. As a member of FTI's and PWC's practices over the course of the last 20 years, I have developed extensive experience in advising troubled and bankrupt companies and their creditors. My experience includes a wide range of assignments including out-of-court restructurings, turnarounds, workouts and corporate bankruptcies. In addition, I have considerable experience in restructurings and bankruptcies in the financial services industry, including, but are not limited to, the bankruptcies and restructurings of: MF Global Holdings Ltd, Advanta Corp, The Education Resources

Institute, Inc., Refco, Inc., People's Choice Home Loan, Inc., Mortgage Lenders Network USA Inc., ResMae Mortgage Corporation, First NLC Financial Services LLC, Alliance Bancorp, Mortgage Corporation of America, American Business Financial Services, Inc., ContiFinancial Corporation, The Thaxton Group Inc., Criimi Mae Inc., and Fidelity Bond and Mortgage.

5. In addition, I have been engaged in other large workouts and bankruptcies on behalf of the Debtors or their creditors, including: Orleans Homebuilders, Inc., M. Fabrikant & Sons, Inc., Oakwood Homes, Inc., Cone Mills Corp., Delta Mills, Inc., US Aggregates, Inc., and Heilig-Meyers Company. I have also been engaged in many out-of-court restructurings, including Credit-Based Asset Servicing and Securitization LLC, LNR Corporation, and other, nonpublic matters.

6. Furthermore, FTI and I have provided financial advisory services to parties involved in mortgage-related litigation, all of which are confidential in nature.

7. I hold a bachelor of science from the University of Delaware and a Masters Degree in Business Administration in Finance from The Wharton School of the University of Pennsylvania. I have been a speaker at various industry conferences, covering topics such as the recent financial crisis, tranche warfare in structured finance, and other real estate issues.

8. In preparing this Declaration and in addition to the information referenced herein, I, and others from my firm under my direction, reviewed and considered other materials and documents, the internal nonpublic financial and operating data concerning the Debtors furnished to me by the management of the Debtors and information publicly available about the Debtors. Based on my review of numerous

bankruptcy cases and the relevant materials, and based on my 20 years of experience in this industry, I concluded that, if the RMBS Trust Settlement is not approved, the Debtors' Chapter 11 cases will be more protracted and more expensive — to the likely detriment of recoveries for creditors in these cases — than if the RMBS Trust Settlement is approved.

BACKGROUND

9. The RMBS Trust Settlement resolves, in exchange for an allowed claim of up to $8.7 billion against the debtors Residential Funding Company, LLC ("RFC") and GMAC Mortgage LLC ("GMAC Mortgage") (the "Allowed Claim"), alleged and potential representation and warranty claims and servicing claims (collectively, the "R&W Claims") held by up to 392 securitization trusts (the "Trusts") in connection with approximately 1.6 million mortgage loans backing approximately $221 billion in original issue balance ("OIB") of associated residential mortgage-backed securities ("RMBS") issued by the Debtors' affiliates between 2004 and 2007. In aggregate, the R&W Claims represent a potential for tens of billions of dollars in contingent claims against the Debtors' estates. It is my understanding that the R&W Claims allegedly arise under Pooling and Servicing Agreements, Assignment and Assumption Agreements, Indentures, Mortgage Loan Purchase Agreements and other documents governing the Trusts (collectively, the "Governing Agreements"). These Governing Agreements require mortgage Sellers,[1] in certain circumstances, to repurchase securitized Mortgage Loans that materially breach applicable representations and warranties. It is my understanding the Debtors have repurchased approximately $1.16

[1] In descriptions of the terms of the Governing Agreements, capitalized terms have the meaning ascribed to them in the Governing Agreements.

billion in loans since 2005, in part, to resolve similar contractual representation and warranty claims. Furthermore, I understand that the Debtors dispute the R&W Claims and intend to vigorously defend future contractual representation and warranty claims brought against them.

10. Due to the complex nature of the disputes around the R&W Claims, absent the RMBS Trust Settlement the Debtors' estates face substantial litigation costs and risks in connection with the R&W Claims. Based on my review of the costs and delays of numerous Chapter 11 cases, my professional experience, and the Declaration of Jeffrey Lipps ("Lipps Declaration"),[2] I conclude that the costs and delays associated with litigating rather than settling the R&W Claims are likely substantial and not in the best interests of the Debtors or their creditors. Furthermore, I conclude that the RMBS Trust Settlement could prevent delays in the Debtors' restructuring which in turn could negatively impact the confirmation of a Chapter 11 plan.

COMPLEX NATURE OF THE R&W CLAIMS

11. Litigation regarding alleged breaches of representations and warranties under multiple securitizations is extremely complex and time consuming. As an initial matter, the factual analyses required to determine whether a breach occurred are vast. For instance, the relevant documents and information differs from case to case, as the securitization structures and Governing Agreements vary from one securitization to another. The claims potentially covered by the RMBS Trust Settlement involve up to 392 different securitizations. It is my understanding that these securitizations were the results of efforts of both RFC and GMAC Mortgage, each of which employed different

[2] The Lipps Declaration is referenced and cited in the Debtors' motion pursuant to Rule 9019 of the Federal Rules of Bankruptcy Procedure for approval of the RMBS Trust Settlement Agreements.

personnel and procedures during this time frame. In addition, each Trust involved a unique set of mortgage loans which included different loan products, such as first liens, second liens, prime, Alt-A, and subprime. The underwriting of the various loans would have involved different employees, with different automated processes and underwriting guidelines, diligence standards, and quality audit practices. Furthermore, the representations and warranties in the securitizations will often differ between securitizations; for example, key representations and warranties may or may not include: underwriting standards, underwriting methodologies, borrower income, loan-to-value, appraisal methodologies, and occupancy, among others. Analyzing each of the above elements requires detailed and specific analyses often viewed through the prevailing underwriting environment that existed when each loan was created.

12. Accordingly, the discovery process for the resolution of these claims alone is a significant undertaking. As an example, the Debtors' litigation with MBIA Insurance Corporation ("MBIA") demonstrates the enormity of the discovery required in litigating alleged breaches of representations and warranties. Based on my review of the Lipps Declaration, MBIA's lawsuit against RFC involved just five trusts securitizing approximately 63,000 home equity lines of credit or closed-end second mortgages — just two of the many loan types involved in the 392 Trusts — issued by RFC in less than a year. Fact discovery in this case has not been completed over three and a half years after MBIA first sued RFC. RFC has produced more than a million pages of documents, including loan files for more than 63,000 mortgage loans. RFC has produced nearly one terabyte of data including a variety of source code, other application

data, and back-end loan-level data relating to automated systems used in connection with underwriting, pricing, acquisition of, pooling, auditing, and servicing the mortgage loans.

13. My understanding is that the claims litigated in the MBIA litigation are substantially similar to those that could be brought by the Trusts. Accordingly, if the RMBS Trust Settlement is not approved, the same types of litigation could occur for the remaining non-MBIA trusts.

THE EXPENSE OF LITIGATING THE R&W CLAIMS

14. Due to their complexity and size, the litigation of the R&W Claims held by the Trusts would burden the estate with significant professional fees and other litigation-related expenses. The professional fees and other burdens of litigation, including the reserves that would be required if such litigation commenced, could harm the Debtors' estates and likely reduce and delay recoveries for the Debtors' creditors.

15. In order to analyze the potential impact of the litigation of the R&W Claims on the Debtors' estates, I analyzed the professional fees of various Chapter 11 cases over the past four years. The cases chosen for the analysis included financial services-related enterprises with assets greater than $1 billion and nonfinancial companies with assets greater than $5 billion and less than $30 billion.[3] I analyzed the professional fees in 16 large bankruptcy cases.[4]

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[3] The sample sized was limited to the Southern District of New York and Delaware jurisdictions and to cases that filed between 2008 and June of 2011. The sample did not include cases that converted to Chapter 7. Capital IQ was used as the primary database.

[4] The cases included: Tribune Company, WMI Holdings Corp., Lehman Brothers Holdings, Inc., Ambac Financial Group, Inc., Lyondell Chemical Company, Innkeepers USA Trust, Nortel Networks, Inc., Capmark Financial Group, Inc., Abitibi Bowater, Inc., General Growth Properties, Inc., Smurfit-Stone Container Corp., Fairfield Residential LLC, CIT Group Inc., Lear Corp., Charter Communications, Inc., and R.H. Donnelley Corp.

16. As part of this analysis, I reviewed the publicly available professional fee applications for the debtors' lead counsels and financial advisors, and the lead counsels and financial advisors for the official committees for unsecured creditors to evaluate the level of fees associated with litigation.[5] I calculated the fees and expenses incurred and categorized under task codes on fee applications that related to litigation activities, such as fees designated as litigation, discovery, contested matters, and others.[6] It should be noted that to the extent professionals categorized litigation activities as another task — for instance, work on a plan of reorganization or disclosure statement hearing — my analysis would not include those as litigation-related costs. I then compared the total litigation related fees to the non-litigation fees on a percentage basis, as shown in Exhibit A hereto.

17. The vast majority of matters had some level of designated litigation-related professional fees while in bankruptcy. Of the matters with some litigation activities disclosed, the litigation fees ranged from 1% to 73% of non-litigation related fees. From the reading of the case histories, it is apparent that bankruptcy matters which involve disputes that result in litigation had significantly increased fees. Tribune Company, WMI Holdings Corp., Lehman Brothers Holdings, Inc., Lyondell Chemical Company, Innkeepers USA Trust, Ambac Financial Group, Smurfit-Stone Container Corp. and Charter Communications, Inc. involved significant dispute issues and therefore had on average 33% (with a range of 17% to 73%) additional fees associated with

[5] We also considered special litigation counsel and expert witnesses to the extent the total case fees requested by such firms were in excess of $2 million. Also note that only professional firms retained through bankruptcy court and compensated through fee application process were included in the analysis.

[6] In addition, there were differences in the manner in which professionals categorized and summarized time entries; therefore, inconsistencies in the total time reported related to litigation may exist if a comparison is made between professionals.

litigation. Cases which did not have significant litigation activity had litigation costs which ranged from 0%-8% of all other fees with an average of 3%. Since the analysis relies on the descriptions included in the various fee applications analyzed and it appears that not all litigation is specifically identifiable, the difference between fees in cases with significant litigation and those without may be understated.

LITIGATING THE R&W CLAIMS COULD DELAY THE DEBTORS' RESTRUCTURING PROCESS

18. In addition to the costs and risks of litigation, my review of bankruptcy cases demonstrated that cases with disputes that result in litigation also have longer durations. If the RMBS Trust Settlement is not approved, the litigation of the R&W Claims could cause significant delay in resolving the bankruptcy estate and, therefore, increased costs. Longer case durations generally increase overall fees associated with a case. Based on my assessment, cases that become litigious could be delayed by approximately 10 months. Thus, it is reasonable to conclude that the Debtors' case could face a similar delay if the case becomes litigious.

19. In order to analyze the impact of settlements on the duration of bankruptcies, I reviewed all bankruptcy case filings from January 2007 through June 2011.[7] Of those, I, and others from my firm at my direction, selected 155 to analyze based on cases with assets greater than $250 million.[8] This sample was analyzed to identify whether the matter was prepackaged, prearranged or otherwise. Of the 155

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[7] June 2011 was chosen as a cutoff date in order to capture completed cases as represented in the Capital IQ database.

[8] This sample includes chapter 11 cases with assets greater $250 million and excludes cases filed within the past year, cases that were dismissed or converted to Chapter 7.

cases, 24 bankruptcies were identified as being prepackaged, 11 were identified as being prearranged and 120 were otherwise.

20. Based on this sample of 155 bankruptcy filings, there is a significant time savings to consensual resolution of cases. Prepackaged bankruptcies had an average duration of 2 months versus prearranged bankruptcies which had an average duration of 8 months, while all others had an average duration of 19 months. Exhibit B hereto illustrates the duration of delay between prepackaged, prearranged, and the remaining bankruptcies in this sample.

21. The Debtors' bankruptcy as planned is a prearranged bankruptcy in large part due to the three plan support agreements. If the Debtors did not have this support, the Debtors' bankruptcy would likely be extended. These three plan support agreements allow the Debtors to focus on preserving assets, consummating a timely sale of a majority of their assets, and effectuating a plan of reorganization.

22. I have prepared a hypothetical analysis using the time savings between prepackaged/prearranged bankruptcies versus the remaining cases in my sample. To calculate the cost of delay, I used the average length of time between the three types of bankruptcies and assumed an average run rate of professional fees of $19 million per month,[9] which is the line item for fees in the budget for the Debtors' postpetition financing facility (the "DIP Facility") from the petition date until December 2012. If the current bankruptcy proceedings were extended by a mere six months, the range of professional fees increase could be $28 million to $114 million more than is currently anticipated. If the delay was twelve months and assuming 50% of the DIP Facility

[9] As shown in the DIP projections filed on May 14, 2012 and excluding the Servicing Foreclosure File Review costs.

projections "run rate," the professional fees could increase by as much as $114 million based on the assumptions in Exhibit C. An increased duration would also lead to other increased costs, such as additional months of interest on the DIP Facility, additional adequate protection payments and increased United States Trustee fees. If these professional fees and other incremental costs are incurred, there could be a meaningful reduction in recoveries to unsecured creditors.

BENEFITS OF SETTLEMENT

23. After the substantial downturn in the real estate and financial markets beginning in 2007, investors in securitization trusts and other interested parties have brought claims regarding alleged breaches of representations and warranties contained in the agreements governing those trusts. The Debtors have been involved in repurchase requests in connection with such alleged breaches and, as a consequence, have repurchased approximately $1.16 billion in loans since 2005 partially due to such alleged breaches.

24. The Debtors face considerable uncertainty, litigation costs and risk associated with the R&W Claims. In similar RMBS litigation cases, the plaintiffs have asserted claims in the tens of billions of dollars. In the case of Countrywide and Bank of America, the matter has been proceeding for over two years and the parties are still in the discovery phase.

25. In many instances, the Debtors have disputed repurchase demands and allegations of breaches of representations and warranties as the calculation and estimation of repurchase exposure depends on a number of factors that parties value and measure differently. For example, the Debtors dispute the accuracy and methodology of

MBIA's allegations and breach rates associated with the R&W Claims. An exhaustive analysis of the MBIA claims and other claims will require extensive research which would require time and professional fees, and many such investigations would be necessary if the RMBS Trust Settlement is not approved and the R&W Claims are litigated.

26. Additionally, the RMBS Trust Settlement is an integral part of the Debtors' Plan. In connection with the RMBS Trust Settlement, and subject to Bankruptcy Court approval, the Debtors, following extensive negotiations, have entered into substantially the same Chapter 11 Plan Support Agreements with each of the Steering Committee Group and the Talcott Franklin Group and Ally Financial Inc. ("AFI"). These settlements provide a construct for a global settlement of RMBS claims and will likely prevent a protracted litigation to settle claims. Without the RMBS Trust Settlement, the institutional investors and the Trustees could hold up the implementation of the Debtors' Plan, and such litigation could significantly delay the Debtors' restructuring efforts. As indicated in the sample of 155 bankruptcies, if a bankruptcy was non-prepackaged or non-prearranged, the proceedings of such bankruptcy were delayed and extended by upwards of a year — with the potential of tens of millions in extra professional fees — which delay could apply to the Debtors' if the prearranged bankruptcy does not occur. Without the RMBS Trust Settlement, the Debtors' Chapter 11 cases could be similar to the 120 cases that are not prepackaged or prearranged.

27. Furthermore, the proposed RMBS Trust Settlement Agreement provides substantial benefits to the Debtors, as litigating these issues would distract the

Debtors from focusing on critical aspects of their restructuring, including potentially interfering with the multibillion dollar sale of mortgage servicing rights and other assets.

28. Additionally, lengthy claims litigation would likely reduce recoveries to other unsecured creditors. The claims of the other unsecured creditors are largely fixed in nature, and are dwarfed by the size of the R&W Claims. Increasing the size of the R&W Claims (or instituting an estimation procedure that risks increasing their potential size) could dramatically lower recoveries for the other creditors whose claims will be paid from the same, limited pool of funds.

29. The RMBS Trust Settlement provides certainty to the Debtors with respect to the single largest set of disputed claims against the Debtors' estates and removes impediments to a successful restructuring of the Debtors. The RMBS Trust Settlement was a necessary precursor to the Institutional Investors' commitment to the Plan Support Agreements. Additionally, if the RMBS Trust Settlement is not approved and the R&W Claims are increased, the recovery by the holders of the Debtors' Junior Secured Bonds will be diluted and could compromise the Debtors' plan support agreement with such bondholders and impede the Debtors' Chapter 11 proceedings.

CONCLUSION

30. In conclusion, the RMBS Trust Settlement will reduce the probability of protracted litigation and reduce the probability of a longer Chapter 11 proceeding, both of which would otherwise substantially increase professional fees that would be incurred by the estate, likely to the detriment of recoveries for creditors in these cases. Approval of the RMBS Trust Settlement will allow the Debtors to focus on other

critical aspects of their restructuring, including maximizing the multibillion dollar sale of mortgage servicing rights and other assets.

I swear under penalty of perjury that the foregoing is true and correct.

Dated: June 11, 2012

/s/ William Nolan
William J. Nolan

Exhibit A

Litigation Fees Versus Non Litigation Fees

	Advisor Fee Analysis	
	Lit Fees as % of Non-Lit Fees	Duration Years
Higher Range		
Charter Communications, Inc.	73%	0.7
Tribune Company	49%	3.5
WMI Holdings Corp.	46%	3.5
Lyondell Chemical Company	27%	1.3
Innkeepers USA Trust	19%	1.3
Lehman Brothers Holdings, Inc.	19%	3.5
Smurfit-Stone Container Corp.	17%	1.4
Ambac Financial Group, Inc.	17%	1.6
Lower Range		
Capmark Financial Group Inc.	8%	1.9
General Growth Properties Inc.	7%	1.6
Nortel Networks, Inc.	4%	3.4
AbitibiBowater, Inc.	2%	1.6
Fairfield Residential LLC	1%	0.6
Lear Corp.	1%	0.3
R.H. Donnelley Corporation	0%	0.7
CIT Group, Inc.	0%	0.1
Average:		
Higher	33%	2.1
Lower	3%	1.3
Total Sample Size	18%	1.7

Notes and Assumptions:

(1) There were differences in the manner in which professionals categorized and summarized time entries; therefore, inconsistencies in the total time reported related to litigation may exist if a comparison is made between

(2) Sample population includes financial related enterprises with assets greater than $1 billion and non-financial companies with assets between $5 billion and $30 billion, which filed for bankruptcy between January 2008 and June 2011 in New York and Delaware jurisdictions.

(3) Reflects fees requested by lead counsels and lead financial advisors for the debtors and for the official committees for unsecured creditors. This analysis does not consider professional firms retained by other constituents, such as chapter 11 examiner and equity committee. This analysis includes special litigation counsel and expert witness, if any, to the extent requested fees over the course of the case were greater than $2 million.

(4) Fixed fees related to litigation submitted by financial advisors are estimated based on hours billed to the task code related to litigation procedures.

(5) Includes travel time discount. All other fees are gross.

(6) Publicly available information only. Does not consider fees and expenses funded by the estate to the extent such fees were not filed publicly.

(7) Reflects fees and expenses incurred and categorized under task codes on fee applications related to litigation activities, such as fees designated as litigation, discovery, contested matters, and others. To the extent professionals categorized litigation activities as another task — for instance, work on a plan of reorganization or disclosure statement hearing — this analysis does not reflect such fees as litigation fees.

(8) Billing codes are generally inconsistent between fee applications.

(9) Certain professionals involved in the Lehman bankruptcy have not disclosed their involvement in the litigation procedures, however, certain narrative indicates that the litigation amount could be a material part of the final application for their professional compensation.

Source: Capital IQ, court docket

Exhibit B

Duration of Pre-Packaged, Prearranged and Other Chapter 11 Cases

	Total		Chapter 11 Classification[1]					
			Pre-Packaged		Pre-Arranged		Other[2]	
	Count	Avg. Length[1]	Count	Avg. Length[3]	Count	Avg. Length[3]	Count	Avg. Length[3]
By Case Length								
On-going Cases[4]	17	3.3	-	-	-	-	17	3.3
3-4 years	4	3.4	-	-	-	-	4	3.4
2-3 years	13	2.4	-	-	-	-	13	2.4
1- 2 years	46	1.5	-	-	1	1.9	45	1.5
Less than 1 year	75	0.5	24	0.2	10	0.6	41	0.6
Total/Blended	**155**	**1.3**	**24**	**0.2**	**11**	**0.7**	**120**	**1.6**

(1) Classification of the type of Chapter 11 cases is generally based on Capital IQ's designation.

(2) Other case durations may be due to litigation and other issues. For these cases, the reason for the extended duration has not been analyzed on a case by case basis.

(3) In number of years.

(4) Case length reflects time lapsed since filing through the date of this analysis

Source: Capital IQ

Exhibit C

Range of Potential Outcomes

($ in millions)

Monthly Run Rate **$ 19** *

Percent of Run Rate of Professional Fees

Months		25%	50%	75%	100%
	18	$ 85	$ 171	$ 256	$ 342
	12	$ 57	$ 114	$ 171	$ 228
	6	$ 28	$ 57	$ 85	$ 114

*Source: DIP projections dated 5/14/2012; this figure excludes Servicing Foreclosure File Review costs and covers the period

Exhibit F

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

RESIDENTIAL CAPITAL, LLC, et al.,	Case No. 12-ap-1671 (MG)
Plaintiffs,	Bankruptcy Case No. 12-12020 (MG)
v.	Jointly Administered
ALLSTATE INS. CO., THE OTHER PARTIES LISTED ON EXHIBIT A TO THE COMPLAINT, JOHN DOES 1-1000,	
Defendants.	

DECLARATION OF JEFFREY A. LIPPS

I, Jeffrey A. Lipps, declare:

1. I am a partner with Carpenter Lipps & Leland LLP, 280 Plaza, Suite 1300, 280 North High Street, Columbus, Ohio 43215 (the "Firm").

2. The Firm currently represents or has represented over the past several years a number of the debtor entities, four non-debtor affiliated entities, and several individual former directors and officers of debtor entities in over a dozen separate lawsuits involving the debtor entities' issuance of residential mortgage-backed securities. The Firm has been representing various defendants in these matters since the spring of 2010.

3. In addition to the cases in which the Firm is involved, I am also aware that there are additional lawsuits regarding the debtor entities' issuance of residential mortgage-backed

securities that also name several debtor entities, non-debtor affiliates, and/or former directors and officers. Although the Firm does not represent the defendants in those actions, I am aware of the cases, the plaintiffs' allegations, and the causes of action asserted against the defendants.

4. This Declaration provides an overview of the pending residential mortgage-backed securities lawsuits that name both the debtor entities and certain of their non-debtor affiliates and/or individual directors and officers.[1] It also discusses why, based on my experience in these lawsuits, it is highly likely that very substantial discovery burdens will be imposed on the debtor entities and their employees if any of the lawsuits proceed against the non-debtor affiliate defendants or the individual defendants.

5. The Appendix to this Declaration, in turn, provides a more detailed description of the allegations, claims, anticipated defenses, and procedural status of each of the lawsuits.

I. <u>Overview Of The Lawsuits</u>.

6. Collectively, the debtor entities originated residential mortgage loans, securitized those loans through both government-sponsored entities (including Fannie Mae, Freddie Mac, and Ginnie Mae) and private-label securitization trusts, and sold the securitizations to investors. Some of the debtor entities' private-label securitizations were insured by financial guaranty or "monoline" insurers which guaranteed the repayment of certain payments to the security certificate holders.

7. The debtor entities have been named in 42 lawsuits across the country arising from their issuance of the mortgage-backed securities. Those lawsuits concern 392 securitizations and more than 1.6 million mortgage loans with an original principal balance in excess of $226 billion. The debtor entities named as defendants in these lawsuits are as follows:

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[1] In addition, there are other residential mortgage-backed securities-related lawsuits filed solely against the debtor entities, which this declaration does not address because they are subject to the automatic stay.

a. Residential Capital, LLC ("ResCap"), the holding company for the mortgage lending and securitization businesses of GMAC, LLC (now known as Ally Financial, Inc.);

b. Residential Funding Company, LLC ("RFC"), one of ResCap's two primary operating subsidiaries that acquired and sold mortgage loans in "private-label" securitizations and whole loan sales;

c. GMAC Mortgage, LLC ("GMACM"), ResCap's other primary operating subsidiary that originated and sold loans to and through Fannie Mae, Freddie Mac, and other government agencies, and also originated and sold mortgage loans into private-label securitizations;

d. Residential Accredit Loans, Inc. ("RALI"), the separate entity (known as a "shelf") that filed registration statements with the SEC through which RFC securitized Alt-A first lien mortgage loans;

e. Residential Funding Mortgage Securities I, Inc. ("RFMSI"), the shelf through which RFC registered with the SEC to issue securitizations of prime first lien mortgage loans;

f. Residential Funding Mortgage Securities II, Inc. ("RFMSII"), the shelf through which RFC registered with the SEC to issue securitizations of second lien loans;

g. Residential Asset Securities Corporation ("RASC"), the shelf through which RFC registered with the SEC to issue securitizations of subprime loans;

h. Residential Asset Mortgage Products, Inc. ("RAMP"), the shelf through which GMACM issued securitizations of second lien loans, and a "catch-all" shelf from which RFC and GMACM registered with the SEC to issue securitizations of other non-standard or non-conforming mortgage loans;

i. GMAC-RFC Holding Co., a holding company for RFC and the RFC shelf companies (RALI, RAMP, RASC, RFMSI & RFMSII); and

j. Homecomings Financial, LLC, a wholly owned subsidiary of RFC that underwrote and funded mortgage loans originated through brokers for sale or securitization by RFC.

8. Twenty-seven lawsuits have named certain non-debtor affiliated entities and/or former directors and officers of debtor entities as defendants. Those 27 lawsuits involve 116 securitizations and more than 660,000 mortgage loans with an original principal balance of more than $83 billion. The individual former director and officer defendants are Bruce J. Paradis,

Davee L. Olson, David C. Walker, Kenneth M. Duncan, Ralph T. Flees, James G. Jones, David M. Bricker, Lisa R. Lundsten, and James N. Young. The non-debtor affiliated entities named as defendants in these lawsuits are as follows:

a. Ally Financial, Inc., the ultimate indirect parent of the debtor and non-debtor entities;

b. Ally Bank, which purchased, funded, and sold mortgage loans to and through GMACM, some of which were securitized by GMACM;

c. Ally Securities, LLC (f/k/a Residential Funding Securities, LLC or Residential Funding Securities Corporation d/b/a GMAC RFC Securities), which underwrote some of the securities offered by RFC and GMACM; and

d. GMAC Mortgage Group, LLC, the holding company that was ResCap's parent.

9. The 27 pending lawsuits filed against the debtor entities and their non-debtor affiliates and the individuals fall into three general categories: (1) 11 lawsuits filed by monoline insurers, 10 of which were filed by Financial Guaranty Insurance Company ("FGIC") and one of which was filed by Assured Guaranty Municipal Corp; (2) 15 lawsuits filed by institutional investors who purchased certificates in the debtor entities' private-label mortgage-backed securitizations; and (3) a lawsuit filed by the Federal Housing Finance Agency ("FHFA"), acting in its capacity as the conservator for Freddie Mac.

10. All 27 lawsuits are premised on the central allegation that the debtor entities misrepresented the characteristics of the mortgage loans underlying the subject securitizations. The private-label plaintiffs and the FHFA bring claims primarily for alleged violations of state and/or federal securities laws and common law fraud and negligent misrepresentation, based on the debtor entities' statements in the offering documents that accompanied the securitizations. The monoline insurers primarily bring contract and fraud claims pursuant to the representations

and warranties that the debtor entities provided in conjunction with obtaining insurance on the securities.

11. The 27 lawsuits bring claims against the non-debtor affiliates and/or individual defendants that are derivative of, and inextricably intertwined with, the claims against the debtor entities. It is the debtor entities—not the non-debtor affiliates or the individual defendants—that issued the mortgage-backed securities, prepared and filed the accompanying offering documents, and provided the representations and warranties to the monoline insurers. This conduct of the debtor entities is the indispensable foundation for the plaintiffs' causes of action against the non-debtor affiliates and the individual defendants.

12. In particular, the plaintiffs allege that the non-debtor affiliates Ally Financial, Inc. and GMAC Mortgage Group, LLC are liable for the debtor entities' alleged wrongdoing as "control persons" of the debtor entities, given the organizational fact that these non-debtor entities were direct or indirect parent companies of the debtor entities. The plaintiffs' claims against the individual defendants are similarly based on "control person" liability stemming from the individuals' conduct in their capacities as directors and officers of debtor entities. As such, an essential element of the plaintiffs' claims against these non-debtor entities and individual defendants is proof of the underlying liability of the debtor entities—specifically, a non-debtor parent such as Ally Financial, Inc. cannot be liable for the fraud of subsidiaries/debtors RFC and GMACM under a "control person" theory unless RFC or GMACM is first found liable for fraud.

13. Likewise, the plaintiffs' claims against the non-debtor affiliates Ally Securities and Ally Bank overlap with the allegations and claims against the debtor entities. The plaintiffs sue Ally Securities as an underwriter for some of the securitizations, and Ally Bank as a contributor of mortgage loans and custodian for some of the securitizations. Those claims arise

out of the mortgage loan origination, acquisition, and securitization activities of debtors RFC and GMACM. Thus, establishing the liability of Ally Securities and Ally Bank will necessarily require resolution of a number of issues and allegations as to debtors RFC and GMACM: for example, whether in fact misrepresentations were made to plaintiffs in the offering materials prepared by the debtor entities, and whether proper underwriting standards were in fact followed by debtors RFC and GMACM in acquiring, originating, and/or pooling the mortgage loans.

14. In short, to pursue claims against the non-debtors, the plaintiffs must establish that either the debtor entities' offering materials for the subject securitizations (*i.e.*, the prospectus and prospectus supplements) contained various misrepresentations and omissions regarding the underlying mortgage loans, or the debtor entities' contractual representations and warranties similarly misrepresented the characteristics of those loans. Disproving these allegations is also central to the defense of the plaintiffs' claims.

15. The essential information necessary to prosecute and defend these claims is virtually all in the possession of the debtor entities. The debtor entities have possession and control of the loan files, underwriting guidelines and memos, due diligence materials, relevant emails, quality audit documents, and other loan-level or securitization-related information that are necessary for these cases to go forward. Those documents are central to determining whether there *was* a contractual misrepresentation or any securities fraud—and those documents are in the debtor entities' possession.

16. Meanwhile, the non-debtor entities have virtually no relevant documents: non-debtors Ally Financial, Inc. and GMAC Mortgage Group have no information specific to any securitizations or the mortgage loan underwriting process; non-debtor Ally Securities at most would have a small amount of diligence- or sale-related information relating to its role as

securitization underwriter; and Ally Bank at most would have its own underwriting guidelines—but not RFC's or GMACM's guidelines, which are the ones at issue in the litigation—and a small amount of very basic loan-level information relating to loans it contributed to the securitizations or for which it served as custodian. None of these materials are sufficient to prosecute or defend against the claims in the cases, because none relate to the underwriting or securitization practices of the offerors of the securitizations.

17. Further complicating discovery, the relevant documents and information differ from case to case. Each case involves different securitizations. Each securitization involves a unique set of mortgage loans, and was separately negotiated and structured. Each securitization shelf (that is, RALI, RAMP, RFMSI, RFMSII, and RASC) involves unique documents, processes, and personnel, which varied over time. For example, RALI was the shelf through which Alt-A first lien securitizations were offered; RASC was the shelf through which subprime first lien securitizations were offered; RFMSI was the shelf through which prime and jumbo first liens were offered; and RFMSII was the shelf through which second lien securitizations were offered. Different loan products—second liens, first liens, prime, Alt-A, subprime—likewise involved different teams of employees, different automated processes, different underwriting guidelines, different diligence standards, and different audit practices. The processes and personnel changed over time. As a result, each lawsuit essentially poses a new discovery challenge and unique discovery burdens from every other lawsuit. For example, a lawsuit involving 2005 RALI securitizations of Alt-A first liens will involve entirely different documents and testimony from a lawsuit involving 2006 RFMSII home equity securitizations, which would be different again from a lawsuit involving RASC subprime securitizations of any vintage.

18. To compound matters, the loan origination, acquisition, and securitization processes of RFC and GMACM were entirely distinct when the securitizations at issue were offered. RFC was a Minneapolis-based company that focused on non-agency, private label loans and securitizations. GMACM, on the other hand, was a Pennsylvania-based company whose primary business was originating "agency" or "conforming" loans for sale or securitization to and through the GSEs (Fannie Mae, Freddie Mac, and Ginnie Mae). Thus, discovery into the processes at RFC cannot be used in cases questioning the securitizations of GMACM. And cases that involve securitizations offered by both RFC and GMACM require discovery into the processes of each entity—essentially double the discovery effort. Moreover, the cases are pending in a variety of different courts, both state and federal, in New York, Minnesota, Ohio, Massachusetts, Indiana, and Illinois, and are proceeding on different discovery schedules.

19. Accordingly, permitting the lawsuits to proceed against the non-debtor affiliates and individual defendants would impose a substantial burden on the debtor entities. The debtor entities would be forced to devote significant time and resources in responding to discovery requests in 27 different lawsuits. And the anticipated scope of discovery is massive—likely to involve tens of millions of pages of documents, hundreds (if not thousands) of hours of time from dozens of debtor entity employees, hundreds of days of deposition testimony from current and former employees of the debtor entities, and cost millions of dollars.

20. The following discussion of the investor securities fraud lawsuits (such as *Western* & *Southern*, *New Jersey Carpenters*, and *Allstate*), the *FHFA* lawsuit, and the *FGIC* lawsuits illustrates these points and demonstrates the anticipated discovery burden on the debtor entities if any of the 27 lawsuits is permitted to proceed against the non-debtor affiliates or the

individual defendants. Further detail as to the other cases facing a similar situation is contained in the Appendix.

II. <u>Monoline Litigation: The Financial Guaranty Insurance Company ("FGIC") Lawsuits</u>.

21. FGIC is a monoline insurer that issued insurance policies guaranteeing payments to investors in over 30 of the debtor entities' securitizations. As such, FGIC entered into various contracts with the debtor entities. FGIC now alleges that the debtor entities fraudulently induced it to enter those contracts; that the debtor entities breached various provisions of those contracts relating to their handling of the underlying mortgage loans; and that the debtor entities breached their contractual obligations to permit access to loan files and certain books and records.

22. FGIC has filed ten lawsuits that name non-debtor affiliate Ally Financial, Inc., and four of those also name non-debtor affiliate Ally Bank. These lawsuits are all currently pending in the Southern District of New York before Judge Paul Crotty.[2]

23. With regard to Ally Financial, FGIC alleges that Ally Financial is the alter ego of debtor entities ResCap and RFC, and therefore Ally Financial is liable for the actions of its subsidiaries. FGIC also alleges that Ally Financial aided and abetted its subsidiaries in fraudulently inducing FGIC to enter the contracts. Thus, all of FGIC's claims against Ally Financial will require FGIC first to establish the debtor entities' underlying wrongdoing.

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[2] The twelve cases are:

FGIC v. GMAC Mortgage, LLC et al., Case No. 11-CV-09729 (PAC)
FGIC v. Ally Financial, Inc., et al., Case No. 12-CV-00338 (PAC)
FGIC v. Ally Financial, Inc., et al., Case No. 12-CV-00339 (PAC)
FGIC v. Ally Financial, Inc., et al., Case No. 12-CV-00340 (PAC)
FGIC v. Ally Financial, Inc., et al., Case No. 12-CV-00341 (PAC)
FGIC v. Ally Financial, Inc., et al., Case No. 12-CV-00780 (PAC)
FGIC v. Ally Financial, Inc., et al., Case No. 12-CV-01601 (PAC)
FGIC v. Ally Financial, Inc., et al., Case No. 12-CV-01658 (PAC)
FGIC v. Ally Financial, Inc., et al., Case No. 12-CV-01818 (PAC)
FGIC v. Ally Financial, Inc., et al., Case No. 12-CV-01860 (PAC)

24. The four cases that name Ally Bank allege that it breached obligations arising from securitization agreements with FGIC and certain debtor entities based on its role as custodian of the underlying mortgage notes. To prove its claims against Ally Bank, FGIC will have to obtain extensive discovery from the debtors relating to the securitization agreements, the mortgage loan origination and acquisition process, and the handling and appropriate transfer of the mortgage notes.

25. As with the other complaints described above and in the Appendix, the plaintiff cannot prove its claims without extensive discovery from the debtor entities. The scope of that discovery in the FGIC litigation, however, will be substantial—and it will be focused on the debtor entities because FGIC's claims fundamentally arise from contractual dealings ***with the debtors***.

26. Discovery in the FGIC lawsuits has not yet commenced and the parties have just begun to outline potential motion to dismiss arguments in letters to the Court. However, one of the best indicators of the likely discovery burden in these cases is the scope of discovery in two other similar monoline insurer lawsuits, involving different transactions, brought against debtor entities: *MBIA Insurance Corp. v. Residential Funding Company, LLC* and *MBIA Insurance Corp. v. GMAC Mortgage, LLC*. The Firm represents debtors RFC and GMACM in both of these lawsuits, which are subject to the automatic stay.

27. Both lawsuits involve claims relating to the origination, acquisition, securitization, and servicing of loans in securitization transactions for transactions sponsored by debtor entities for which MBIA provided insurance. The MBIA cases, like the FGIC litigation, allege that the debtor entities fraudulently induced MBIA to enter the insurance contracts, and that the debtor entities breached their contractual representations and warranties to MBIA

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regarding the origination, underwriting, and pooling of the mortgage loans underlying the securitizations. Like the FGIC litigation, the MBIA cases also involve the plaintiff's invocation of contractual remedies, which permit certain participants in the securitization, such as monoline insurers, to request that the debtor entities repurchase defective loans from the trusts, thereby reducing the monoline insurer's potential losses. MBIA and FGIC both pursued those contractual remedies with the debtor entities for a period of time before filing suit. Thus, the MBIA cases raise many similar issues to the FGIC litigation described above, and the extensive fact discovery sought in the MBIA litigation to date is illustrative of the future burdens likely to fall to the debtor entities should any portion of the FGIC litigation proceed.

28. Fact discovery in MBIA's lawsuit against RFC was lengthy and enormous, although the case involved just five securitizations of either home equity lines of credit or closed-end second mortgages issued by RFC in less than a year. The case was filed in 2008, but fact discovery is only winding down now and certain discovery matters are still ongoing. RFC has produced more than 1,000,000 pages of documents, including loan files for over 63,000 mortgage loans. In addition, RFC has produced nearly one terabyte of data including a variety of source code, other application data, and back-end loan-level data relating to automated systems used in connection with underwriting, pricing, acquiring, pooling, auditing, and servicing the mortgage loans.

29. MBIA has taken over 80 days worth of depositions of current or former RFC, GMACM, or ResCap personnel over the course of more than a year. RFC has taken 50 days of depositions of current or former MBIA personnel. A number of additional third party depositions have been taken and several third party depositions remain to be taken. The initial

exchange of expert reports in that case saw the parties exchange 10 expert reports and it is anticipated that rebuttal expert reports will be exchanged in the future.

30. Fact discovery in MBIA's lawsuit against GMACM has not yet completed. That case involves just three securitizations of home equity lines of credit or closed-end second mortgages issued by GMACM. GMACM has already produced in excess of 1,000,000 pages of documents plus additional electronic records—and production is continuing. To date, and despite an arrangement to use previous transcripts from the RFC case to try and reduce the number and length of depositions for the overlapping witnesses, MBIA has taken nine depositions and has scheduled or is in the process of scheduling at least that many more depositions. For its part, GMACM has taken 14 depositions and has requested dates for several more witnesses.

31. As the MBIA lawsuits demonstrate, FGIC cannot prosecute its claims against the non-debtor affiliate entities without pursuing extensive and burdensome discovery from the debtor entities.

III. Investor Litigation – *Western and Southern, New Jersey Carpenters, Allstate*, And Others.

32. Investors who purchased certificates in the debtor entities' mortgage-backed securitizations have brought 15 lawsuits against debtor entities, non-debtor affiliates, and individual directors and officers. These lawsuits assert claims for state or federal securities violations, fraud, and negligent misrepresentation. Below are three illustrative examples of the discovery burdens involved with defending these claims on behalf of all defendants.

A. <u>The Western And Southern Life Insurance Company, et al. v. Residential Funding Company, LLC, et al.</u>, Case No. A1105042, Court of Common Pleas, Hamilton County, Ohio ("*Western & Southern*").

33. The plaintiffs in *Western & Southern* are institutional investors who purchased certificates in seven securitizations by debtor entities spanning three years and three different securitization shelves. The seven securitizations involve more than 48,000 mortgage loans with a face value in excess of $5.6 billion.

34. The plaintiffs name as defendants debtor entities RFC, GMACM, RALI, RAMP, and RFMSI; non-debtor affiliate Ally Securities; and individual former directors and officers Bruce J. Paradis, Davee L. Olson, David C. Walker, Kenneth M. Duncan, Ralph T. Flees, James G. Jones, and David M. Bricker. The case is pending in state court in Ohio. Motions to dismiss are pending, but discovery is beginning. Defendants have been ordered to produce readily available information, plaintiffs have already served voluminous document requests, the bulk of which would fall on the debtor entities, and, at the time ResCap and its subsidiaries filed for bankruptcy, the ResCap defendants were preparing to produce transaction documents and underwriting guidelines relevant to the transactions at issue.

35. The plaintiffs allege that the prospectus supplements for the seven securitizations contained numerous material misstatements and omissions. More specifically, the plaintiffs allege that the debtor entities "abandoned" the underwriting standards disclosed in the prospectus supplements; falsely represented that the underlying mortgages would be assigned to the applicable trust; provided false information regarding the characteristics of the mortgage loans to the rating agencies; improperly manipulated the appraisal process and misrepresented the loan-to-value ratios for the underlying mortgages; and misrepresented the "owner occupancy" status of the underlying mortgages.

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36. Based on these allegations, the amended complaint asserts claims for fraud, civil conspiracy, negligent misrepresentation, and violation of the Ohio Securities Act. The plaintiffs allegedly purchased approximately $215.4 million of certificates and seek rescission, compensatory damages, punitive damages, and costs.

37. The plaintiffs' claims against the non-debtor affiliate, Ally Securities, and the individual defendants are entirely derivative of their claims against the debtor entities. The plaintiffs' allege that the debtor entities made the misrepresentations at issue. The individual defendants are only alleged to have signed the registration statements for the subject offerings. *See* Amended Complaint ¶¶ 28-34, 218. Non-debtor affiliate Ally Securities was only an underwriter for the securitizations at issue, but the plaintiffs fail to allege that it made any specific affirmative misrepresentations.

38. To prove their claims against the non-debtor affiliate and the individual defendants, then, the plaintiffs must first establish the conduct and liability of the debtor entities. The plaintiffs could not prosecute their claims without discovery from the debtor entities—and likewise the non-debtor affiliate and individual defendants could not defend the claims without discovery from the debtors.

39. The plaintiffs have requested the loan files for each of the seven subject offerings. Given that typical loan files can contain several hundred pages of documents, production of all 48,000 loan files could easily involve at least 5,000,000—and as many as 10,000,000—pages of documents. The loan files are in the possession of the debtor entities, not the individual defendants or the non-debtor affiliate entities. Moreover, the loan files are a mixture of imaged and paper documents stored in numerous locations around the country.

40. The plaintiffs have also demanded production of all internal communications and communications between and among the debtor defendants and various other entities such as rating agencies, underwriters, due diligence firms, and government agencies, relating not just to the loans underlying the seven offerings, but also any and all related business activities. In essence, the plaintiffs seek all internal and external email and other electronic communications in any way related to the seven subject offerings. These requested emails and electronic communications are in the possession of the debtor defendants and require debtor defendants' employees to retrieve.

41. Given that the case involves seven unique securitizations involving three different shelves, and with a relevant time period spanning at least six years, the number of individuals' emails and other electronic communications that would have to be searched would be enormous. As noted above, each securitization involves its own transaction documents, a unique group of mortgage loans, and underwriting guidelines that may have varied over time. Where, as in this case, multiple securitization shelves and loan products are involved, different witnesses (and so different email boxes and other sources of information) must be searched for each shelf and product.

42. Based on past experience, such searching is likely to produce millions of pages of results, both paper and electronic, all of which must be processed and then reviewed for relevance, responsiveness, and privilege. In addition, relevant loan-level data for these 48,000 mortgage loans—such as information about loan-level performance data, loan originators, underwriting parameters, due diligence, quality audit results, payment history and other relevant metrics—is housed in or was processed through a number of electronic systems. Some of these electronic systems are no longer operational and require extensive involvement of IT

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professionals to access. Furthermore, producing such information requires the export of large volumes of loan-level data, as well as grappling with complex issues surrounding "structured data" such as source code, underwriting rules programmed into automated loan evaluation systems, automated loan pricing tools, automated loan pooling tools, and others.

43. The anticipated cost of searching, reviewing and producing such documents will inevitably run into the hundreds of thousands, if not millions, of dollars. To make matters worse, the emails for the time period of the seven securitizations, for both debtor and non-debtor email custodians, are only available on literally thousands of backup tapes. Those tapes would need to be restored (a manual and time-consuming process), processed, and searched before a typical document review could even begin. That effort, too, would fall on the debtor entities and their in-house IT resources in the first instance.

44. In sum, if this lawsuit were permitted to proceed against the non-debtor affiliates or the individual defendants, the plaintiffs and defendants would have to pursue extensive, burdensome discovery from the debtor entities.

B. New Jersey Carpenters Health Fund, et al. v. RALI Series 2006-QO1 Trust, et al., Case No. 08-CV-08781-HB, United States District Court, Southern District of New York ("*New Jersey Carpenters*").

45. The plaintiffs in this case represent a proposed class of institutional investors who purchased certificates in four securitizations by debtor entities spanning two years. The four securitizations involve more than 12,000 mortgage loans with a face value of approximately $3.8 billion. Furthermore, four additional institutional investors have intervened, and, after motions to dismiss, their remaining claims relate to an additional six securitizations with a face value of approximately $5.7 billion.

46. The plaintiffs name as defendants debtor entities ResCap, RFC, and RALI; non-debtor affiliate Ally Securities; and individual former directors and officers Bruce J. Paradis, Kenneth M. Duncan, Davee L. Olson, Ralph T. Flees, Lisa R. Lundsten, James G. Jones, David M. Bricker, and James N. Young. The case is pending in federal court in the Southern District of New York.

47. The plaintiffs allege that the debtors' offering materials (e.g., the prospectus and prospectus supplements) for the four securitizations failed to disclose that the defendants had "systematically disregarded" the applicable underwriting guidelines; that the credit rating models were outdated and the credit enhancements for the offerings were inadequate; and that defendants had conflicts of interest with the rating agencies. *See, e.g.,* FAC ¶¶ 66-254.

48. Based on these allegations, the plaintiffs assert securities claims under Sections 11, 12, and 15 of the Securities Act of 1933. *Id.* at ¶¶ 262-294. Generally, these statutes prohibit untrue and misleading statements and omissions of material facts in offering documents. 15 U.S.C. §§ 77k, 77o & 77l. The original plaintiffs' class certification motion was denied and the denial was affirmed by the Second Circuit Court of Appeals; however, the trial judge has allowed plaintiffs a 60-day period of additional discovery and an opportunity to file a renewed class certification motion.

49. The plaintiffs' claims against the non-debtor affiliate and individual defendants are derivative of their claims against the debtor entities. The only specific allegations as to the individual defendants are that they signed the registration statements, conspired with the debtor defendants, or were in a position to control the activities of the debtor defendants. FAC ¶¶ 35-48, 266, 288. The plaintiffs' claims against the non-debtor affiliate Ally Securities, which served as the underwriter for two of the offerings, are similarly based on the allegations against the

debtor defendants. In particular, the plaintiffs allege that Ally Securities did not exercise proper control over the debtor defendants and did not conduct proper due diligence or necessary oversight in the underwriting, securitization, and preparation of the debtor entities' offering documents—all allegations that are premised on the debtor defendants' alleged wrongdoing in underwriting, securitizing, and preparing the relevant offering documents. FAC ¶136; SAC ¶¶ 2, 45, 128, 135, 225-57.

50. With respect to defenses, the defendants generally intended to demonstrate that there were no misrepresentations or omissions in the offering materials; that plaintiffs' losses were not caused by any purported misrepresentations or omissions; that plaintiffs' claims were barred by the one year statute of limitations; and that plaintiffs knew of the purported untruths or omissions.

51. More specifically, Sections 11, 12 and 15 provide "due diligence" or "due care" defenses for the individual defendants and/or non-debtor affiliate defendant. For example, under Section 11, a defendant can avoid liability by showing that "after reasonable investigation," he or she had "reasonable ground to believe and did believe" that the subject offering materials did not contain material misstatements or omissions. *See* 15 U.S.C. § 77k(b)(3)(A). Similarly, Section 12 provides a "due care" defense to a defendant that "did not know, and in the exercise of reasonable care could not have known" that the offering materials contained material misstatements or omissions. 15 U.S.C. § 77l(a)(2). Section 15, in turn, provides an affirmative defense for a defendant who "had no knowledge of or reasonable ground to believe in the existence of facts" that allegedly gave rise to the section 11 and 12 claims. 15 U.S.C. § 77o(a). In connection with their efforts to establish each of these affirmative defenses, the individual

defendants and/or non-debtor affiliate will need to obtain information and evidence, including testimony, from the debtor entities.

52. Each of the individual defendants will also defend against the Section 15 claims by showing that he or she was not a "control" person as defined under federal securities law. Again, the individual defendants will need to obtain information and evidence, including testimony, from the debtor entities in order to establish this defense. Indeed, the plaintiffs themselves are likely to seek information and evidence, including testimony, from the debtor entities in order to prosecute their claims in the action.

53. As noted above, the plaintiffs are seeking class action status for their claims, and are embarking on a 60-day period of renewed discovery related to an effort to revise their proposed class definition. Merits discovery as to these offerings also remains to be completed. In addition, the court permitted four other plaintiffs to intervene based on investments in other securitizations also issued by the debtors, and their class and merits discovery efforts have not yet commenced.

54. To date, discovery has been focused on class certification issues. Nonetheless, the debtor entities have already produced more than 175,000 pages of documents, including underwriting guidelines, transaction documents, contract files reflecting agreements between debtor RFC and various loan originators, emails for over 20 custodians, and selected loan files. The plaintiffs also have already indicated that they intend to take 80 depositions on the merits.

55. Given the discovery efforts and communications to date, it is anticipated that ongoing discovery will be extensive, burdensome, and costly—and as in *Western & Southern*, that discovery can only be obtained from the debtor entities.

C. <u>Allstate Insurance Company, et al. v. GMAC Mortgage, LLC, et al.</u>, No. 27-CV-11-3480, Hennepin County District Ct., Minnesota ("Allstate")

56. The plaintiffs in *Allstate* are a variety of affiliated investors who purchased certificates with a face value of over $553 million in 25 securitizations involving more than 190,000 mortgage loans issued by debtor entities RFC and GMACM between 2005 and 2007. The plaintiffs name debtors RFC, GMACM, RALI, RAMP, RFMSI, RFMSII, and RASC as defendants, along with non-debtor affiliate Ally Securities. The case is pending in state court in Minnesota.

57. The plaintiffs' claims and allegations are substantially similar to those asserted in the *Western and Southern* and *New Jersey Carpenters* cases, including common law fraud and negligent misrepresentation based on alleged misstatements regarding the underwriting of the loans forming the collateral for the securitizations. Fact discovery is underway and the Court has set a discovery deadline of September 2012.

58. The plaintiffs have served over 90 document requests covering virtually every aspect of the debtor entities' loan origination, acquisition, underwriting, auditing, and securitization businesses. To date, the debtor entities have produced transaction documents, underwriting guidelines, and organizational charts, and were just concluding extensive negotiations with plaintiffs' counsel regarding the enormous volume of email data to be collected and produced when the ResCap debtors filed for bankruptcy.

59. Because the *Allstate* litigation involves all five of RFC's securitization shelves, the number of witnesses, email custodians, and documents involved is massive. Each securitization shelf involved different key personnel: the deal managers, traders, asset specialists and others who worked on second-lien securitizations from the RFMSII shelf are almost completely distinct from those who worked on subprime first-lien securitizations from the RASC

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shelf, and distinct again from those who worked on Alt-A first lien securitizations from the RALI shelf. Likewise, the individuals involved in loan acquisition decisions differed by product type: one team focused on standards for acquiring prime and Alt-A first liens; another team focused on subprime; another on second liens. Moreover, debtors Homecomings, GMACM, and RFC each had their own underwriting guidelines, underwriting staff, and automated systems and processes relating to underwriting decisions.

60. Accordingly, the plaintiffs have preliminarily sought email production from over 50 custodians, the vast majority of whom were employees of the debtors working in Structured Finance, Trading, Product Management, Quality Audit, and other departments directly relevant to the origination, acquisition, and securitization of residential mortgage loans.

61. The plaintiffs have also served four subpoenas on both debtor and non-debtor non-party affiliates (non-debtors Ally Bank and Ally Financial, and debtors ResCap and Homecomings Financial), and have threatened motion practice against both debtor and non-debtor defendants and non-parties over objections to the various document requests and subpoenas that the debtor and non-debtor parties have asserted.

62. For all of these reasons, discovery will be burdensome in many of the same ways described above for the other investor litigation matters. If litigation proceeds only against the non-debtor defendant, as plaintiffs' subpoenas have already demonstrated, discovery will nonetheless require significant attention and resources from a number of debtor entities, since the vast majority of the relevant documents and materials are in the debtor entities' possession and control. By way of example, a recent subpoena on non-debtor and nonparty affiliate Ally Bank required the debtors to determine what Bank-related documents are now in the debtor entities'

custody and control, and what Bank-related email data now resides on the debtor entities' servers.

IV. <u>The FHFA Litigation.</u>

63. Although ultimately an investor case similar to the cases set forth above, the FHFA litigation warrants separate consideration because of the size and coordinated nature of the overall FHFA litigation.

64. The FHFA filed the lawsuit against debtor entities ResCap, RFC, RAMP, RASC, and RALI; and against non-debtor affiliates Ally Financial, Inc., GMAC Mortgage Group, LLC, and Ally Securities. The FHFA simultaneously filed 16 other similar actions against other groups of issuers and underwriters. The lawsuit against the debtors and non-debtors at issue here involves 21 securitizations across the RASC, RAMP, and RALI shelves, and concerns more than 100,000 loans. FHFA's initial investment in these securitizations exceeds $6 billion.

65. Sixteen of the FHFA's 17 cases are assigned to Judge Denise Cote of the Southern District of New York, where they are proceeding on a coordinated track.[3] Common issues are being briefed across all cases where possible, and the Court has indicated an intention to explore common methodologies of using sampling of loan files and other discovery management tools across all of the cases.

66. For example, Judge Cote has ordered that witnesses—including FHFA's witnesses—will each only be deposed once. She has selected the *FHFA v. UBS* case, which served as a test case for motion to dismiss briefing, as the first to be set for trial (although discovery is beginning in all of the cases). In addition to being a defendant as an issuer of

[3] The seventeenth, against Countrywide, originally was also coordinated with the other 16, but was transferred to the pending MDL against Countrywide in California. However, Judge Cote has expressed an intention to be mindful of possible coordination of discovery in that case as well, to the extent possible.

mortgage-backed securities in the *FHFA v. UBS* case, UBS is also a defendant in the *FHFA v. Ally* case because it served as a securitization underwriter on certain of the Ally securitizations. Thus, when FHFA and UBS personnel are deposed in the *FHFA v. UBS* case, the non-debtor affiliated defendants will have to actively participate in those depositions as to any issues relevant in the *FHFA v. Ally* case, as they will not have another opportunity to do so. The same is true for any other depositions that occur across the cases, including depositions of personnel from JP Morgan, RBS, Citigroup, and others that are underwriter defendants in the *FHFA v. Ally*.

67. Judge Cote's most recent Order relating to discovery, which requires defendants to produce information about loan originators and loan data provided in connection with the closing of the securitizations within a matter of weeks, perfectly illustrates the problem with allowing piecemeal litigation to proceed against the non-debtor affiliated defendants. Judge Cote ordered the production of data so that the FHFA can better assess the possibility of using a statistical sample of loan files to prove liability. Only the debtor entities have the ready access to information responsive to Judge Cote's Order: it is debtor ResCap that maintains the loan-level data, and debtor ResCap personnel that must research and query debtor ResCap systems to pull together that type of information. Here, it would have to do so as to 21 separate securitizations. Moreover, should discovery proceed to the logical next step, only the debtor entities have possession of the mortgage loan files, underwriting parameters, and other information necessary to evaluate any collection of loan files that may ultimately be at issue in the litigation.

68. Thus, as with the other investor cases, the discovery process will prove to be excessively burdensome on the debtor entities should the litigation against the non-debtor entities be permitted to proceed.

V. Remaining Lawsuits

69. As described in more detail in the Appendix to this Declaration, the remaining lawsuits have similar allegations and claims as those discussed in the *Western & Southern*, *New Jersey Carpenters*, and/or *FGIC* lawsuits. While the facts, documents, and witnesses will differ from case to case, the basic issues are substantially similar. Accordingly, it is anticipated that the likely scope of discovery and burden to the debtor entities in those matters will be the same or similar if the claims against the non-debtor affiliate entities and individual defendants are permitted to proceed: each of the cases will involve extensive document and deposition discovery relating to the particular securitizations at issue in that particular case, including the origination, acquisition, underwriting and pooling of the loans for each securitization, the preparation of the transaction documents for each securitization, the diligence performed on loans contained within the collateral pools for each securitization, and the performance of the loans underlying each securitization.

VI. Permitting The Court Actions To Proceed Against The Individual Defendants And The Non-Debtor Affiliates Will Likely Impose Substantial Discovery Burdens On The Debtor Entities And Their Employees

70. As set forth above, the plaintiffs' claims in all of these cases hinge on the allegations that either the debtor entities' offering materials contained various misrepresentations and omissions regarding the mortgage loans underlying the subject securitizations, or the debtor entities' contractual representations and warranties similarly misrepresented the characteristics of those loans. Thus, the key factual areas for discovery and dispute include:

a. The mortgage loan underwriting and diligence standards applied **by the debtor defendants**;

b. The loan origination and acquisition practices followed **by the debtor defendants**;

c. The pooling of mortgage loans for securitization **by the debtor defendants**;

d. The preparation of securitization-related documents and risk disclosures **by the debtor defendants**; and

e. The monitoring of loan performance and quality audit practices **of the debtor defendants**.

71. Virtually all of the information necessary to prosecute and defend these claims is in the possession of the debtor entities, including loan files, loan-level performance data, quality audit data for the loans, underwriting guidelines applicable to the loans, documents related to negotiated agreements with external loan originators who sold loans to the debtor defendants, transaction documents for each securitization, documents relating to the preparation of and negotiation of the various securitization-related agreements and disclosures, and historical emails for those involved in every aspect of the business.

72. In contrast, the individual defendants and Ally Financial have *none* of those materials in their possession, custody, or control. And while Ally Securities and Ally Bank may have some modicum of relevant information in their possession, they do not possess any of the other crucial information described above. Thus, the information necessary for the plaintiffs to prosecute their claims and for the defendants to defend against those claims must be obtained from the debtor entities.

73. That discovery burden is compounded because the debtor entities have downsized substantially since the events in 2005, 2006, and 2007. For example, the debtor entities' work force today is just one-third of what it was in 2007. Numerous automated systems and databases used in the processing of mortgage loans and creation of securitizations have been retired, making the gathering and production of responsive material a challenge. As well, material stored on shared drives has been moved or archived, making it difficult to locate and identify necessary materials, particularly in the absence of personnel who are able to describe or explain the information. As a result, the debtor entities have limited resources to assist with the collection of

responsive materials, prepare for and provide deposition testimony on behalf of the company, and provide strategic advice to guide the defense of the claims on behalf of both debtor and non-debtor entities and individuals.

74. The few remaining employees with personal knowledge of the facts relevant to the ongoing litigation, and with personal knowledge of documents, systems and historical processes, include the individuals and function areas described below. We have consulted with each of them regularly regarding discovery and fact development issues, and would need to continue to do so were these cases to proceed. Thus, these individuals will continue to be called upon to provide extensive time and resources to the defense if discovery in the litigation is permitted to go forward against the non-debtor affiliate entities or the individual defendants:

a. Heather Anderson was a deal manager in the Structured Finance group and is now in the debtors' Treasury function. Ms. Anderson is one of the only remaining current employees of any ResCap entity with personal knowledge of the first-lien structured finance operations at debtor RFC, and thus she is a critical witness in all of the pending litigation. She has signed verifications for discovery responses on behalf of RFC, has spent many hours assisting our Firm with understanding the facts underlying the loan acquisition and securitization process, and had begun preparation to testify as both a corporate designee and an individual fact witness in numerous of the cases described above. I would anticipate that Ms. Anderson would play a similar role with respect to all of the RFC-related Jumbo or Alt-A first lien residential mortgage-backed securities litigation.

b. Jeffrey Blaschko was a deal manager in the Structured Finance group and he is currently the head of the Capital Markets Investor Relations team that manages the Vision investor website and other loan-level performance data and reporting. During his time in Structured Finance, Mr. Blaschko worked on second-lien securitizations. He is therefore a key resource in all the pending cases. In fact, he is the only remaining ResCap employee with personal knowledge of debtor RFC's second-lien securitization practices, and was deposed for two lengthy days in the *MBIA v. RFC* litigation. In his current role, Mr. Blaschko and his group have repeatedly been called upon by our Firm to provide loan-level data, both current and historical, relating to the individual loans in the collateral pools for the securitizations.

c. Tim Witten, another key resource, is responsible for the Master Servicing function at debtor RFC, which manages all the cash flows to and through each securitization trust out to investors. He has been deposed and has provided regular advice and information to our Firm. Others in his group—including Jeb Robinson, Bob Horn and Marcia Neira—had unique involvement in various aspects of the Master Servicing function for the various RFC securitizations, and each has also been deposed and invested many hours providing data, documents, and information to our Firm on an ongoing basis. I anticipate that Mr. Witten and his team would play a similar role with respect to all the pending residential mortgage-backed securities litigation.

75. In addition, the debtor entities have limited resources to assist with the identification and collection of responsive material for production in the various cases.

76. Our Firm works hand-in-hand on a daily basis with the individuals and groups described above (Treasury, Investor Relations, Credit Policy, Capital Markets, Repurchase Management, Compliance and Master Servicing), as well as the Legal Department, the E-discovery Group, and the Information Technology Department to gather material responsive to the plaintiffs' discovery requests and to build the defense of the cases. This effort is challenging given the attrition and reorganization at the companies since 2007. To date, it has required many hours of time and effort, including frequent conferences with a large number of current employees across departments to marshal facts and locate relevant material. Much of the documents and data are stored on old shared drives that have been moved around or reorganized, and are difficult to locate and navigate. Historical policies and practices must be pieced together in light of the lack of institutional memory. Substantial effort is required by the debtors' IT and E-discovery groups to restore and access responsive data from old proprietary electronic systems. Restoring and accessing historical email traffic responsive to discovery requires time and dedicated personnel.

77. In addition, we are frequently in contact with Human Resources requesting information about the dozens of former employees who are being sought as witnesses in the litigation; the Accounting department, relating to loan-level and securitization-level funding, pricing, and accounting information relevant to the underlying litigation; and Master Servicing and Investor Relations in connection with gathering loan level data. The individuals involved in these various efforts include a wide variety of employees across departments and at virtually all levels of the debtor entities.

78. The defense of these lawsuits is a time-consuming and burdensome process for the entirety of the limited staff at the debtor entities. If discovery is permitted to proceed, even

against the non-debtor affiliate entities and individual defendants, the burden and distraction on the debtor entities will continue—and if anything that burden will only increase given the increasing number of cases entering the discovery phase across a wider variety of loan types and securitization shelves.

I declare under penalty of perjury, pursuant to 28 U.S.C. § 1746, that the foregoing is true to the best of my knowledge, information, and belief. Executed on May 24, 2012, at Columbus, Ohio.

Jeffrey A. Lipps

APPENDIX TO DECLARATION OF JEFFREY A. LIPPS

<u>REPRESENTATION AND WARRANTY CASES</u>

(Cases Listed in Alphabetical Order)

<u>Assured Guaranty Municipal Corp. v. GMAC Mortgage, LLC, et al.</u>, No. 12-civ-3776, United States District Court, Southern District of New York (May 11, 2012) ("*Assured Guaranty*").

1. Assured Guaranty is a monoline insurer who insured payments to investors on several of the debtor entities' securitizations. At issue in this action are two securitizations involving more than 23,000 mortgage loans with a face value in excess of $1.1 billion.

2. The complaint was filed on May 11, 2012. Named as defendants are debtors ResCap, GMACM, RFC, RAMP and RFMSII. Also named as defendants are non-debtor affiliates Ally Financial and Ally Bank.

3. Generally, Assured Guaranty alleges the debtor defendants misrepresented the quality and characteristics of the underlying mortgage loans; failed to comply with contractual repurchase obligations; failed to comply with notice and disclosure obligations regarding the sale of "subsequent mortgage loans" into the applicable trusts; breached various servicing obligations; and breached contractual obligations regarding transfer of certain loan documents to the applicable trustees. Complaint ¶¶ 50, 55, 57, 62, 69. Based on these allegations, Assured Guaranty asserts claims for breach of contract, reimbursement, and indemnification.

4. The Complaint does not contain any specific allegations against non-debtor affiliate Ally Financial other than its purported "control" of the debtor defendants' actions. <u>See e.g.,</u> Complaint ¶¶ 112, 130, 136, 142, 148, 155, 160, 169, 173. As for non-debtor Ally Bank, the Complaint alleges that it failed to notify Assured Guaranty of the debtor defendants' breach

of representations and warranties. Complaint ¶ 141. While the Complaint also alleges that Ally Bank failed to provide Assured Guaranty with documents relating to subsequent mortgage loan transfers, it is debtor GMACM who allegedly was responsible for making these subsequent transfers. Complaint ¶¶ 56-57. In short, Assured Guaranty's claims against the non-debtor affiliates are entirely derivative of, and premised on, the underlying alleged misconduct of the debtor defendants.

5. The complaint was only filed days ago and discovery has not yet commenced. However, the scope of discovery in other monoline insurer cases against the debtor defendants provides a good indicator of the likely scope of discovery in this matter. See Lipps Declaration ¶¶ 26-30. In those other matters, discovery has included the production of millions of pages of documents, more than a terabyte of data, and more than 100 days of deposition testimony. Id. It is anticipated that the likely scope of discovery would be similar in this matter.

Financial Guaranty Insurance Company ("FGIC") Lawsuits.

6. These 10 lawsuits are discussed in the Lipps Declaration at ¶¶ 21-31.

INVESTOR CASES

(Cases Listed in Alphabetical Order)

Allstate Insurance Company, et al. v. GMAC Mortgage, LLC, et al., Civil File No. 27-CV-11-3480, Fourth Judicial District, Hennepin County, Minnesota ("*Allstate*").

7. This lawsuit is discussed in the Lipps Declaration at ¶¶ 56-62.

Cambridge Place Investment Management Inc. v. Citigroup Global Markets Inc., et al. ("*CPIM I*"), No. 10-2741 (Mass. Sup. Ct. July 9, 2010).

Cambridge Place Investment Management Inc. v. Morgan Stanley & Co., et al., ("*CPIM II*"), No. 11-00555 (Mass. Sup. Ct. February 11, 2011).

8. Cambridge Place Investment Management ("CPIM") has sued debtors RALI, RASC, and RAMP; non-debtor affiliate Ally Securities; and a wide range of other mortgage securitization sponsors in two separate actions in the Superior Court for Suffolk County, Trial Division in Massachusetts, although plaintiffs voluntarily dismissed RALI, RASC and RAMP without prejudice after the bankruptcy petition was filed. The debtors are involved with 10 out of the more than 200 securitizations at issue in this litigation. The plaintiff alleges it purchased more than $51 million of the subject securities. The 10 securitizations involve more than 36,000 loans with a face value in excess of $5.8 billion.

9. The complaints are premised on the allegation that the registration statements and the prospectuses for the securities contained numerous material misstatements. Specifically, CPIM alleges that misstatements were made regarding: (a) the mortgage underwriting standards used to underwrite the loans by the third parties from which the loans were purchased, (b) the appraisal standards for the loans, (c) the loan-to-value ratios, debt-to-income ratios, and occupancy status of the properties, (d) the due diligence and underwriting procedures of the defendants, (e) the forms of credit enhancement applicable to certain tranches of securities, and (f) whether the issuing trusts had obtained good title for the mortgage loans comprising the

borrowing. See Amended Complaint at ¶ 658. Based on these allegations, CPIM asserts violations under the Massachusetts Uniform Securities Act.

10. Motions to dismiss are pending and discovery has not yet commenced. The first request for documents was served May 22, 2012. Nonetheless, given the extensive scope of the allegations, the derivative nature of the plaintiff's claims against non-debtor affiliate Ally Securities, the number of securitizations involved, and the size of the plaintiff's investment, it is anticipated that discovery needed from the debtors will be extensive, costly, and burdensome.

Federal Deposit Insurance Corporation, As Receiver for Citizens National Bank, et al. v. Bear Stearns Asset Backes Securities I LLC, et al., No. 12-CV-4000, United States District Court, Southern District of New York (May 18, 2012).

11. The Federal Deposit Insurance Corporation ("FDIC"), in its capacity as receiver for Citizens National Bank ("CNB") and Strategic Capital Bank ("SCB"), filed a complaint on May 18, 2012, in the United States District Court for the Southern District of New York. Named as defendants are non-debtor affiliate Ally Securities and numerous issuers and underwriters of mortgage-backed securities.

12. At issue are 12 securitizations, involving 28,700 mortgage loans, with a face value in excess of $6.9 billion. Although not named as defendants in the complaint, non-party debtors RFC and GMACM originated loans included in 5 of the securitizations, allegedly involving approximately 18,000 mortgage loans, with a face value in excess of $3.9 billion.

13. The complaint alleges violations of Sections 11 and 15 of the Securities Act of 1933 based on alleged misrepresentations concerning the credit quality and loan-to-value ratios of the underlying mortgage loans, compliance with appraisal standards, occupancy status of the properties securing the underlying mortgage loans, and the underwriting standards used to

originate the loans. Accordingly, extensive discovery requests directed at non-party debtors RFC and GMACM are inevitable.

14. The complaint was only filed days ago and discovery has not yet commenced. Nonetheless, given the extensive scope of the litigation, the number of securitizations involving the non-party debtors, and the size of plaintiffs' alleged investment (in excess of $140 million), it is anticipated that discovery needed from the non-party debtors as to the underlying mortgage loans securitized and sold will be extensive, costly, and burdensome.

Huntington Bancshares, Inc. v. Ally Financial Inc., et al., Case No. 27-CV-11-20276 (Minnesota District Court, 4th Judicial District Oct. 11, 2011).

Stichting Pensioenfonds ABP v. Ally Financial Inc., et. al., Case No. 27-CV-11-20426 (Minnesota District Court, 4th Judicial District Oct. 11, 2011).

15. On October 11, 2011, Huntington Bancshares, Inc. ("Huntington") filed a complaint with the Minnesota District Court, 4th Judicial District, asserting claims against several debtor entities, non-debtor affiliates Ally Financial, Inc. and Ally Securities, LLC, and former officers and/or directors Bruce Paradis, Kenneth M. Duncan, Davee L. Olson, Ralph T. Flees, Lisa R. Lundsten, David C. Walker, Jack R. Katzmark and Julie Steinhagen with respect to five securitizations where the debtors acted as sponsor and depositor.

16. Also on October 11, 2011, Stichting Pensioenfonds ABP ("Stichting") filed a complaint with the Minnesota District Court, 4th Judicial District asserting claims against several debtor entities, non-debtor affiliates Ally Financial, Inc. and Ally Securities, LLC, and former officers and/or directors James G. Jones, David M. Bricker, Diane Wold, James G. Young, Bruce Paradis, Kenneth M. Duncan, Davee L. Olson, Ralph T. Flees, Lisa R. Lundsten, David C. Walker, Jack R. Katzmark Julie Steinhagen, Deutsche Bank Securities, Inc., JP Morgan Securities LLC, Banc of America Securities, LLC, Barclays Capital Inc., and Merrill Lynch

Pierce Fenner & Smith Inc. with respect to six securitizations where the debtors acted as sponsor and depositor.

17. Huntington and Stichting are represented by the same counsel and the two complaints assert that the offering materials for the subject securitizations contained material misrepresentations and omissions regarding the underwriting standards used for the loans, the owner-occupancy status of the mortgaged properties, the loan-to-value ratios for the loans, the credit risk of the securitizations, the credit enhancement for the securitizations and the legal validity of the assignment of the loans to the trusts. In both cases, the claims asserted against Ally Financial, Inc. and Ally Securities, LLC are common law fraud, aiding and abetting fraud, negligent misrepresentation and violation of the Minnesota Securities Act. In the case brought by Huntington each of these claims is also brought against the individual defendants, while in the case brought by Stichting all of the claims other than common law fraud are brought against the individual defendants.

18. The plaintiffs' claims against the individual defendants are based solely on alleged acts or omissions they took while employees of the debtors. Huntington Complaint ¶¶ 202-216; Stichting Complaint ¶¶ 249-267. In the Huntington action, the complaint generically lumps together non-debtor defendants Ally Financial, Inc. and Ally Securities, LLC with the debtors as a common group of corporate defendants when discussing the conduct giving rise to the action. In the Stichting action, claims are asserted against Ally Financial, Inc. based on its alleged control of the debtors. Stichting Complaint ¶¶ 238-247.

19. The cases brought by Huntington and Stichting are pending before the same judge. While the cases have not been formally consolidated, the judge has been conducting the pretrial proceedings for the two actions together. Ally Financial, Inc. and Ally Securities, LLC

have filed motions to dismiss in both actions. Argument was heard on these motions on March 19. The other defendants have also filed motions to dismiss, which are scheduled to be heard on June 12. The court has also scheduled a Rule 16 scheduling conference on discovery for that same day. Once the court has ruled on the motions to dismiss, it is anticipated that discovery will commence in both actions.

Massachusetts Mutual Life Insurance Company v. Residential Funding Company, LLC, et al., Case No. 3:11-cv-30035-KPN (D. Mass. Feb. 9, 2011).

20. The plaintiffs are institutional investors who purchased $300 million of certificates in 18 securitizations involving the debtor entities. The 18 securitizations involve more than 39,000 mortgage loans with a face value in excess of $8 billion.

21. Named as defendants are debtors RFC, RALI, RAMP, and RASC; non-debtor affiliate Ally Securities LLC; and former officers and/or directors Bruce J. Paradis, Davee L. Olson, David C. Walker, Kenneth M. Duncan, Ralph T. Flees, James G. Jones, and David M. Bricker.

22. Generally, the plaintiffs allege that the debtor defendants misrepresented that the underlying mortgage loans were underwritten in accordance with prudent underwriting standards, and misrepresented that borrowers would be able to repay loans, misrepresented the characteristics of the loans (e.g., loan-to-value ratios and owner-occupancy rates). Complaint ¶ 4. Based on these allegations, the plaintiffs assert claims for violation of the Massachusetts Uniform Securities Act.

23. The plaintiffs' claims against the individual officer defendants are derivative of, and premised on, their claims against the debtor defendants. The plaintiffs' sole basis for asserting liability against the individual officer defendants is that they purportedly "controlled" the debtor defendants operations and therefore allegedly are "jointly and severally liable" with

the debtor defendants. Complaint ¶¶ 225-234. The plaintiffs' claims against non-debtor affiliate Ally Securities are based solely on the allegation that it participated in the sale of the securities, and along with the debtor defendants was allegedly responsible for conducting "due diligence" regarding the loans involved in the securitizations. Complaint ¶ 41. In other words, the plaintiffs' claims against the non-debtor affiliate are ultimately premised on, and require proof of, the alleged underlying misrepresentations of the debtor defendants.

24. Discovery has not yet commenced. However, the allegations and claims asserted in this action are similar to those contained in other matters discussed in the Lipps Declaration and herein. Accordingly, it is anticipated that the scope, burden, and cost of discovery would be similar if this matter were to proceed.

New Jersey Carpenters Health Fund, et al. v. RALI Series 2006-QO1 Trust, et al., Case No. 08-CV-08781-HB, United States District Court, Southern District of New York ("*New Jersey Carpenters*").

25. This lawsuit is discussed in the Lipps Declaration at ¶¶ 45-55.

Sealink Funding Ltd. v. Royal Bank of Scotland et al., No. 650484/2012 (New York Supreme Court February 21, 2012).

26. On February 21, 2012, Sealink Funding Limited filed a summons and notice with the Supreme Court for the State of New York, New York County Branch, asserting claims against debtors ResCap, RFC, RAMP, and GMAC-RFC Holding Company and non-debtor affiliates Ally Financial, Inc. and GMAC Mortgage Group, LLC. Sealink alleges that it purchased more than $135 million of certificates in two securitizations sponsored by the debtor defendants.

27. In the notice, the plaintiff asserts that the offering materials for the subject securitizations contained material misrepresentations and omissions regarding the underwriting standards used for the loans, the legal validity of the assignment of the loans to the trusts, the

statistical characteristics for the loans and the securities credit ratings. The claims being asserted against non-debtor affiliates Ally Financial, Inc. and GMAC Mortgage Group, LLC and the debtors are common law fraud, fraudulent inducement, and negligent misrepresentation. A complaint has not yet been filed or served in this matter.

28. The allegations and claims asserted in the notice and summons are similar to those contained in other matters discussed in the Lipps Declaration and herein. Accordingly, it is anticipated that the scope, burden, and cost of discovery would be similar if this matter were to proceed.

<u>Thrivent Financial For Lutherans, et al. v. Residential Funding Company, LLC, et al.</u>, File No. 27-CV-11-5830, Fourth Judicial District, County Of Hennepin, Minnesota ("*Thrivent*").

29. The plaintiffs in *Thrivent* are institutional investors who purchased certificates in seven securitizations involving the debtor entities. The seven securitizations involve more than 53,890 mortgage loans with a face value in excess of $4.6 billion. Plaintiffs allege they purchased more than $115 million of the subject securities.

30. The complaint was filed on March 28, 2011. Named as defendants are debtor entities RFC, GMACM, RALI, RAMP, and Homecomings Financial, LLC; and non-debtor affiliates Ally Bank and Ally Securities, LLC (f/k/a Residential Funding Securities, LLC).

31. Generally, the plaintiffs' claims are similar to those of other investor plaintiffs. The parties have reached a preliminary settlement agreement that is in the process of being finalized; however, if the settlement does not go forward for any reason, discovery will be of comparable scope of and burden to the other investor cases discussed in the Lipps Declaration and this Appendix.

32. Discovery had only just begun at the time of the settlement, yet the defendants' initial production of documents already totals almost 30,000 pages and the plaintiffs had begun noticing a number of both corporate designee and individual depositions.

Union Central Life Ins. Co. et al. v. Credit Suisse First Boston Mortgage Securities Corp. et al., Case No. 11-cv-02890 (S.D.N.Y. Apr. 28, 2011).

33. The plaintiffs are institutional investors who allegedly purchased $31 million of securities in 8 securitizations involving the debtor defendants. Named as defendants in the complaint are debtors ResCap, RFC, and RALI. Also named as defendants are nondebtor affiliates Ally Financial, Inc., Ally Securities LLC and Bruce J. Paradis.

34. In the amended complaint, the plaintiffs assert that the offering materials for the subject securitizations contained false and misleading statements regarding the underlying mortgage loans' compliance with underwriting standards. See Amended Complaint ¶¶ 622-33. The plaintiffs also allege that the debtor defendants made false or misleading statements in the prospectuses regarding the appraisals used to value the collateral in the securitizations and the loan-to-value ratio for the loans in the securitizations. See id. ¶¶ 634-40. The plaintiffs further allege that the prospectuses made misleading statements about borrowers' ability to repay the loans, see id. ¶¶ 641-43, the owner occupancy status of the loans underlying certificates, see id. ¶¶ 644-45, and whether the debtor defendants removed loans with defective mortgage notes from the trusts, see id. ¶ 646. The plaintiffs allege that the defendants made similar misstatements to the ratings agencies in order to obtain inflated ratings to entice investors to purchase the certificates. See id. ¶¶ 647-51.

35. The allegations against individual defendant Bruce Paradis are based solely on the allegation that, as an officer and/or director, he was a "controlling person" and is therefore purportedly liable under Section 20(a) of the Securities Exchange Act of 1934. Similarly, the

plaintiffs' claims against non-debtor Ally Financial are based solely on the allegation that it "controlled and had the authority to control" the contents of the offering materials. Amended Complaint ¶ 849. With respect to non-debtor affiliate Ally Securities, the plaintiffs allege that it was an underwriter that conducted due diligence and participated in preparation of the offering materials. See id. ¶ 703. In sum, the plaintiffs' claims against the non-debtor affiliates and the individual defendants are derivative of, and premised on, the alleged underlying misconduct of the debtor defendants.

36. Based on these alleged misstatements, the plaintiffs assert claims for common law fraud, unjust enrichment, aiding and abetting, violations of section 10(b) of the 1934 Act and Rule 10b-5, violation of section 20(a) of the 1934 act, and violation of section 20(b) of the 1934 Act.

37. Discovery has not yet commenced. However, the allegations and claims asserted in this action are similar to those contained in other matters discussed in the Lipps Declaration and herein. Accordingly, it is anticipated that the scope, burden and cost of discovery would be similar if this matter were to proceed.

The Western And Southern Life Insurance Company, et al. v. Residential Funding Company, LLC, et al., Case No. A1105042, Court of Common Pleas, Hamilton County, Ohio ("*Western & Southern*").

38. This lawsuit is discussed in the Lipps Declaration at ¶¶ 33-44.

GSE CASE

Federal Housing Finance Agency v. Ally Financial Inc, et al., Case No. 11-CV-07010-DLC, United States District Court, Southern District of New York (September 4, 2011)

39. This lawsuit is discussed in the Lipps Declaration at ¶¶ 63-68.

OTHER CASES INVOLVING INDIVIDUAL DEFENDANTS AND/OR NON-DEBTOR AFFILIATES

40. There are also several additional lawsuits involving non-debtor affiliates and/or individual former directors and officers, in which the Firm has not been retained or has not taken a lead role. Generally, these additional lawsuits include allegations similar to the investor lawsuits discussed above, i.e., that the offering materials for the subject securitizations allegedly contained material misstatements and/or omissions, and it is anticipated that discovery would be of similar burden and breadth. These additional lawsuits are:

Federal Home Loan Bank of Boston v. Ally Financial, Inc., et al., (Suffolk Superior Court April 20, 2011);

Federal Home Loan Bank of Chicago v. Banc of America Funding Corp., et al., (Chancery Division of the Circuit Court of Cook County, IL Oct. 15, 2010); and

Federal Home Loan Bank of Indianapolis v. Banc of America Mortgage Securities, Inc., et al., (Marion Superior Court for the State of IN, October 15, 2010).

Exhibit G

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

SUPPLEMENTAL DECLARATION OF JEFFREY A. LIPPS

I, Jeffrey A. Lipps, declare:

1. I am a partner with Carpenter Lipps & Leland LLP, 280 Plaza, Suite 1300, 280 North High Street, Columbus, Ohio 43215 (the "Firm").

2. I have over thirty years' experience as a trial lawyer representing and counseling clients in complex commercial litigation matters, including commercial disputes, class action litigation, securities litigation, procurement matters, and bankruptcy litigation. I have handled cases in state and federal courts in over a dozen states. I was a partner at Jones Day before becoming a founding partner in my current firm, which is a litigation boutique with a national practice.

3. I currently represent or have represented over the past several years a number of the debtor entities, four non-debtor affiliated entities, and several individual former directors and officers of debtor entities in over a dozen separate lawsuits involving the debtor entities' issuance of residential mortgage-backed securities. I have been representing various defendants in these matters since the spring of 2010.

4. In addition to the cases in which the Firm is involved, I am also aware that there are additional lawsuits regarding the debtor entities' issuance of residential mortgage-backed securities that also name several debtor entities, non-debtor affiliates, and/or former directors and

officers. Although the Firm does not represent the defendants in those actions, I am aware of the cases, the plaintiffs' allegations, and the causes of action asserted against the defendants.

5. A number of the lawsuits in which I represented the Debtors before the filing of the bankruptcy petition asserted various claims for breaches of representations and warranties made by various Debtor entities relating to the loans that form that collateral for the residential mortgage-backed securities, as well as claims for failure to repurchase any such breaching loans.

6. These claims arise out of the same or substantially similar contract language to that giving rise to the claims at issue in the Third Amended and Restated RMBS Trust Settlement Agreements, dated as of September 21, 2012 between Residential Capital LLC and its direct and indirect subsidiaries, on the one hand, and two separate groups of institutional investors (the "RMBS Trust Settlements"). In fact, the securities at issue in the cases I handled are included in the RMBS Trust Settlements.

7. Specifically, *MBIA Insurance Co. v. Residential Funding Company, LLC*, No. 603552/2008 (N.Y. Sup. Ct.) (involving five securitizations), *MBIA Insurance Co. v. GMAC Mortgage, LLC*, No. 600837/2010 (N.Y. Sup. Ct.) (involving three securitizations), *Assured Guaranty Mutual Corp. f/k/a Financial Securities Assurance Inc. v. GMAC Mortgage LLC et al.* No. 12-cv-03776-JPO (involving two securitizations), and the 12 cases brought by FGIC against various Debtor and affiliated entities (involving 20 securitizations, and coordinated before Judge Crotty under the lead case *FGIC v. GMAC Mortgage, LLC*, No. 11-CV-09729-PAC (S.D.N.Y.)) all involved claims of breaches of representations and warranties, and related claims of alleged failure to repurchase loans pursuant to the terms of the applicable contracts. Our Firm was counsel of record in all but the *Assured Guaranty* case, which was filed on the eve of the filing of the Debtors' bankruptcy petitions and not served until after those filings.

8. In addition, the Debtors frequently called upon me and my Firm to evaluate various issues relating to repurchase demands or alleged breaches of representations and warranties that were not yet in litigation.

9. As part of our Firm's representation of the Debtors in these matters, I have conducted extensive factual and legal analysis of the claims and defenses in these types of "representation and warranty" cases, monitored the development of the law around the country in this area of the law, and assessed the Debtors' exposure in these types of cases. This analysis has included close review of the publicly available papers relating to similar RMBS representation and warranty settlements, including the Bank of America and Lehman Brothers settlements.

10. I am also deeply familiar with the Debtors' history and practices with respect to RMBS securitizations. As detailed in my May 24, 2012 Declaration, the parties in the two MBIA cases engaged in extensive fact discovery involving the exchange and analysis of millions of pages of discovery material and the completion of dozens of depositions as of the petition date, and had begun exchanging initial expert reports in the *MBIA v. Residential Funding Company* case. In addition, we had evaluated and made initial letter submissions in the *FGIC* group of cases relating to motion to dismiss arguments, and FGIC, likewise, had submitted a letter outlining a proposed early summary judgment motion.

11. Because of my experience with these types of representation and warranty claims – and, specifically, those asserted against the Debtors – I was asked by Morrison & Foerster to evaluate the reasonableness of the Debtors' settlement of such claims relating to 392 mortgage-backed securitization trusts upon the terms set forth in the RMBS Trust Settlements. Based on my review of the settlement terms, my extensive knowledge of the types of claims and defenses at issue and the strengths and weaknesses in the applicable law, and my familiarity with the

strengths and potential weaknesses in the Debtors' defense of the claims, it is my opinion that the RMBS Trust Settlement resolves the potential claims against the Debtors in a reasonable and fair range.

12. The bases for my conclusion are outlined below.

I. <u>OVERVIEW OF POTENTIAL CLAIMS</u>

13. Claims for breaches of loan-level representations and warranties, such as those to be resolved by the RMBS Trust Settlements, generally arise out of the applicable Pooling and Servicing Agreement, Assignment and Assumption Agreement, or another applicable sale agreement (for purposes of this Declaration, "Sale Agreements") between the appropriate Debtor entity and the Trust to whom the Debtor is selling the loans.

14. These Sale Agreements typically contain or incorporate by reference a list of fairly standard representations and warranties about the loans in the collateral pool underlying the securitization. These may be representations about the pool of loans generally – for example, "97.5% of the loans in this securitization are actuarial mortgage loans, on which 30 days of interest is owed each month irrespective of the day on which the payment is received" or "no more than 25.0% of the loans are secured by Mortgaged Properties located in California", or they may be representations that apply to each and every loan in the pool, such as "All of the loans in the pool were originated in compliance with applicable state and federal law."

15. As discussed in greater detail below, additional insight regarding the interpretation of certain representations and warranties may be found in other, related transaction documents, such as the Prospectus and Prospectus Supplement.

16. The representations and warranties most commonly claimed to have been breached in the various lawsuits that have been filed, both against the Debtors and against others, include:

a. Representations relating to compliance with Underwriting Guidelines;

b. Representations relating to compliance with state and federal law;

c. Representations relating to the accuracy of Loan-to-Value (LTV) or Combined Loan-to-Value (CLTV) information;

d. Representations relating to appraisals or the qualifications of appraisers;

e. Representations relating to the accuracy of Owner/Occupancy information;

f. Representations relating to the completeness of Loan Files; and

g. Representations relating to the accuracy of loan information on the Mortgage Loan Schedule or loan tapes provided in connection with the securitization.

17. In addition to these claims for breach of the applicable representations and warranties, plaintiffs in representation and warranty litigation have often engaged in a pre-litigation negotiation process, pursuant to the repurchase process outlined in the applicable contract documents.

18. Specifically, the transaction documents provide that, "upon discovery" of a breach of a representation or warranty, the Seller (here, the Debtor entity selling the loans to the Trust for each securitization) is obligated to repurchase or substitute Mortgage Loans sold to a Trust that breach the stated representations and warranties and "materially and adversely" affect the Certificateholders' interest in those Loans. The substitution and cure remedies are limited, leaving repurchase of the loan as the primary remedy once the securitization has been in the market for some period of time.

19. Under the contract documents, the Trustee for each Trust is the party authorized to pursue claims for breaches of representations and warranties. In the case of pools wrapped by

insurance from a monoline insurer, the insurer will also have certain contractual rights to enforce breaches of representations and warranties regarding the mortgage loans.

20. Although the right to request repurchase belongs in the first instance to the Trustees, the contract documents provide that investors with substantial holdings in a given class of certificates – typically, 25% – have the ability to direct the Trustees to take action with respect to such repurchase demands, including, if necessary, pursuing litigation against the Debtors for alleged breaches of either the representations and warranties themselves, or the obligation to repurchase a loan "upon discovery" that it does not comply with the representations and warranties.[1]

II. <u>ELEMENTS OF THE CAUSE OF ACTION</u>

21. The claims to be asserted by the Trustees, at the direction of the Institutional Investors who are parties to the RMBS Trust Settlements, are primarily breach of contract claims.[2] There are two basic contract causes of action that may be asserted: one for breaches of

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1 The Institutional Investors themselves are likely barred from pursuing a direct action against the Debtors themselves by contractual "no action" clauses that require them to work through the Trustees, at least in the first instance. *See, e.g., Walnut Place LLC v. Countrywide Home Loans, Inc.*, 35 Misc. 3d 1207A (N.Y. Sup. Ct. 2012), *aff'd* 96 A.D.3d 684, 948 N.Y.S.2d 580, 581 (N.Y. App. Div. 1st Dept. 2012).

2 It is possible the Institutional Investors and/or Trustees would attempt to assert related tort claims, such as negligent misrepresentation or fraud. As to negligent misrepresentation, however, New York requires a showing of a "special relationship of trust" between the parties that would warrant the Trustees relying on the Debtors' statements without question. Courts have regularly rejected such claims as to the monoline insurers, which are similarly situated to the Trustees in terms of the arm's length contractual relationship to the Debtors and the information provided to them by the Debtors. *See, e.g., MBIA Insurance Corp. v. Countrywide Home Loans, Inc.,* 87 A.D.3d 287, 928 N.Y.S.2d 229, 235-36 (N.Y. App. Div. 1st Dep't 2011) (upholding dismissal of negligent misrepresentation claim because no special relationship of trust or uniquely superior knowledge was established); *MBIA Insurance Corp. v. Residential Funding Company, LLC,* 26 Misc. 3d 1204A, 906 N.Y.S.2d 781, 781 (N.Y. Sup. Ct. 2009) (same). As to fraud, similarly, the Trustees would need to establish the additional elements of scienter and justifiable reliance. *HSH Nordbank AG v. UBS AG*, 95 A.D.3d 185, 941 N.Y.S.2d

the representations and warranties made in the Sale Agreements themselves, and one for breach of the obligation to repurchase defective loans that is triggered by the discovery of a breach of representation or warranty. Although distinct causes of action, both types of claims turn on the question of whether a given loan breached one or more contractual representations or warranties.

22. If the Institutional Investors or Trustees were to pursue litigation of the claims, the elements they would need to prove include that (1) an agreement existed, (2) the agreement was breached, (3) the breach was material, (4) the breach caused harm to the plaintiff, and (5) the Institutional Investors suffered damages as a result.

23. Because of the complex structure of the RMBS offerings, each of these elements poses unique legal and evidentiary challenges, many of which have not fully developed in a definitive way in the case law to date, and none of which have been litigated to resolution with respect to the Debtors specifically. I evaluate each element in more detail below, and explain why I have concluded that there is sufficient uncertainty and risk in the outcome of these claims to support the conclusion that the proposed settlement is reasonable.

A. Scope of Representations and Warranties

24. Although the representations and warranties for each securitization are spelled out in a clearly identifiable section of the Sale Agreements, there remains ambiguity and dispute about the scope of some of the representations. Accordingly, the fundamental question of

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59, 65 (N.Y. App. Div. 1st Dep't 2012) (collecting cases holding no justifiable reliance as to fraud claims arising from sale or agreement to provide insurance for securities where plaintiff was sophisticated, understood and accepted the risks, and could conduct its own independent investigation into the accuracy of defendant's representations before agreeing to purchase or provide insurance); *see also CIFG Assur. N.A., Inc. v. Goldman Sachs Mortg. Co.*, 2012 N.Y. Misc. LEXIS 3986, at *29-33 (N.Y. Sup. Ct. May 1, 2012) (same). In either case, the Trustees' and Institutional Investors' burden of proof would be greater than it is for breach of contract claims. Moreover, the Debtors would argue that any tort claims relating to the representations and warranties are duplicative of breach of contract claims. Accordingly, I have focused my analysis on the riskiest claims for the Debtors, which are the breach of contract claims.

whether the Debtor had even made an actionable representation may be disputed, and subject to uncertainty as to how a court might rule.

25. Some of the representations and warranties that pose potential interpretive issues with respect to the Debtors' Sale Agreements include (for example):

a. "The appraisal was made by an appraiser who meets the minimum qualifications for appraisers as specified in the Program Guide." 2005-EMX3 Assignment and Assumption Agreement, Sec. 4(xi)

b. "The information set forth on the Mortgage Loan Schedule with respect to each Mortgage Loan is true and correct in all material respects as of the date or dates which such information is furnished." *Id.* at 4(xv);

c. "The weighted average Loan-to-Value Ratio with respect to the Mortgage Loans, by outstanding principal balance at origination, is 83.80%." *Id.* at 4(xviii);

d. "Approximately 93.87% of the Mortgaged Properties (by outstanding principal balance as of the Cut-off Date) are secured by the owner's primary residence. Approximately 3.69% . . . of the Mortgaged Properties . . . are secured by the owner's second or vacation residence. Approximately 2.44% of the Mortgaged Properties . . . are secured by a non-owner occupied residence." *Id.* at 4(xxiii)

e. "[T]here is no default, breach, violation or event of acceleration existing under any Mortgage Note or Mortgage and no event which, with notice and expiration of any grace or cure period, would constitute a default, breach, violation or event of acceleration . . . ." *Id.* at 4(xxviii)

f. "Each Mortgage Loan as of the time of its origination complied in all material respects with all applicable local, state and federal laws, including, but not limited to, all applicable predatory lending laws." *Id.* at 4(xlvii)

g. "The originator of [the relevant Loans] offered the related borrower mortgage loan products for which the borrower qualified and we are not aware that the originator encouraged or required the borrower to select a mortgage loan product that is a higher cost product designed for less creditworthy borrowers." 2007-KS3 Assignment and Assumption Agreement at 4(liv)

h. "The originator of [the relevant Loans] adequately considered the borrower's ability to make payments by employing underwriting techniques that considered a variety of factors, such as: the borrower's income, assets and liabilities, and not solely the collateral value, in deciding to extend the credit at the time of origination." *Id.* at 4(lv)

i. "With respect to each Mortgage Loan originated under a 'streamlined' Mortgage Loan program (through which no new or updated appraisals of Mortgaged Properties are obtained in connection with the refinancing thereof), the related Seller has represented that either (a) the value of the related Mortgaged Property as of the date the Mortgage Loan was originated was not less than the appraised value of such property at the time of origination of the refinanced Mortgage Loan or (b) the Loan-to-Value Ratio of the Mortgage Loan as of the date of origination of the Mortgage Loan generally meets the Company's underwriting guidelines." 2006-QS5 Series Supplement to Standard Terms of Pooling & Servicing Agreement, at 2.03(b)(xv)

j. "No borrower . . . was charged 'points and fees' in an amount greater than (a) $1,000 or (b) 5% of the principal amount of such Mortgage Loan, whichever is greater." 2007-EMX1 Assignment and Assumption Agreement, at 4(liv)

k. "No fraud or misrepresentation has taken place in connection with the origination of any Mortgage Loan." *Id.* at 4(lx).

l. "There is no right of rescission, valid offset, defense, claim or counterclaim of any obligor under any Mortgage Note or Mortgage . . . ." 2006-HSA2 Home Equity Loan Purchase Agreement at 3.1(b)(iii)

m. "For each [relevant] Loan, the related Mortgage File contains or will contain each of the documents and instruments specified to be included therein" *Id.* at 3.1(b)(vi)

n. "All of the [relevant] Loans have been underwritten in substantial compliance with the criteria set forth in the Program Guide," *Id.* at 3.1(b)(xxxvii)

o. "Each Subservicer meets all applicable requirements under the Servicing Agreement, is properly qualified to service the [Loans] and has been servicing the [Loans] . . . in accordance with the terms of the respective Subservicing Agreement." *Id.* at 3.1(b)(xxiii)

26. The representations and warranties cited above are just a sampling of the variety of loan-level representations and warranties that may be at issue, and they vary from Trust to Trust, requiring that any issues as to their scope be litigated differently for different Trusts. But the examples above all present interpretive (not to mention evidentiary) issues: How will the qualifications of an appraiser be evaluated? If some number of the appraisals are deemed flawed because of unqualified appraisers (or for other reasons), how does that impact the weighted average Loan-to-Value Ratio for the collateral pool? Did the Debtors warrant the accuracy of

the underlying appraisal, or merely the accuracy of the loan-to-value calculation based on it? What constitutes "awareness" as to whether an originator may be "encourag[ing]" a borrower to choose one loan product over another? What does it mean for an originator to "adequately consider" a borrower's ability to pay, and what are the Debtors actually warranting in that regard? What does "substantial compliance" with the underwriting guidelines mean? If granting exceptions to the requirements of published underwriting guidelines is common across the industry, should loans with exceptions be considered in "substantial compliance"? Will those originators be considered to have "adequately considered" the borrower's ability to pay? Is there a threshold number of exceptions that renders the loan not substantially compliant, or demonstrates a failure to adequately consider the borrower's ability to pay? Or could a single exception, if the variance is large enough (say, 40 or more points on a FICO score, or 10 or more percentage points for a DTI or LTV), be sufficient to render a given loan out of substantial compliance? Do such deviations constitute *prima facie* evidence that an originator has not adequately considered a borrower's ability to pay?

27. Further complicating the issues, other materials in the package of transaction documents relating to each Trust shed additional light on how potentially ambiguous representations and warranties should be interpreted, including the extensive risk disclosures included in the Prospectus and Prospectus Supplement for each securitization. For example, the risk disclosures explain:

a. "Generally, the [Loans] have been originated using underwriting standards that are less stringent than the underwriting standards applied by certain other [similar] loan purchase programs." 2006-HSA4 Pro. Supp. at S-13. *See also* 2007-EMX1 Pro. Supp. at S-19 ("The mortgage loans have been originated using underwriting standards that are less restrictive than the underwriting requirements used as standards for other first lien and junior lien mortgage loan purchase programs, including other programs of Residential Funding Company, LLC and the programs of Fannie Mae and Freddie Mac.")

b. "Applying less stringent underwriting standards creates additional risks that losses on the [loans] will be allocated to noteholders. For example, the . . . loan pool includes . . . loans made to borrowers whose income is not required to be disclosed or verified." 2006-HSA4 Pro. Supp. at S-13. *See also* 2007-EMX1 Pro. Supp. at S-19 ("Applying less restrictive underwriting standards creates additional risks that losses on the mortgage loans will be allocated to certificateholders.")

c. "[M]ortgage loans made to borrowers whose income is not verified, including borrowers who may not be required to state their income . . . may increase the risk that the borrowers' income is less than that represented." 2007-EMX1 Pro. Supp. at S-19.

d. "The basis for any statement that a given percentage of the mortgage loans is secured by mortgaged properties that are owner-occupied will be one or more of the following:

   - the making of a representation by the mortgagor at the origination of a mortgage loan that the mortgagor intends to use the mortgaged property as a primary residence;
   - a representation by the originator of the mortgage loan, which may be based solely on the above clause; or
   - the fact that the mailing address for the mortgagor is the same as the address of the mortgaged property.

   "Any representation and warranty in the related pooling and servicing agreement regarding owner-occupancy may be based solely on that information." 2007-EMX1 Prospectus at 9.

e. "In some cases, in lieu of an appraisal, a valuation of the mortgaged property will be obtained from a service that provides an automated valuation." 2007-EMX1 Prospectus at 10.

f. "Appraisers may be either staff appraisers employed by the originator or independent appraisers selected in accordance with pre-established guidelines established by or acceptable to the originator." 2007-EMX1 Prospectus at 11.

g. "Appraised values may be determined by either:

   - a statistical analysis;
   - a broker's price opinion; or
   - an automated valuation, drive-by appraisal, or other certification of value." 2007-EMX1 Prospectus at 10.

h. "If specified in the accompanying prospectus supplement, a mortgage pool may include mortgage loans that have been underwritten pursuant to a streamlined documentation refinancing program. Such program permits some mortgage loans to be refinanced with only limited verification or updating of the underwriting information that was obtained at the time that the original mortgage loan was originated." 2007-EMX1 Prospectus at 11.

i. "[S]ome mortgage loans may have been originated under 'limited documentation,' 'stated documentation,' or 'no documentation' programs that require less documentation and verification than do traiditional 'full documentation' programs. Under [these programs], minimal investigation into the mortgagor's credit history and income profile is undertaken by the originator . . . ." 2007-EMX1 Prospectus at 11.

j. "The level of review by Residential Funding Company, LLC, if any, will vary . . . [RFC] typically will review a sample of the mortgage loans purchased . . . for conformity with the applicable underwriting standards." 2007-EMX1 Prospectus at 12.

k. "[A] mortgage loan will be considered to be originated in accordance with a given set of underwriting standards if, based on an overall qualitative evaluation, the loan is in substantial compliance with the underwriting standards." 2007-EMX1 Prospectus at 12.

l. "[A] mortgage loan may be considered to comply with a set of underwriting standards, even if one or more specific criteria included in the underwriting standards were not satisfied, if other factors compensated for the criteria that were not satisfied or if the mortgage loan is considered to be in substantial compliance with the underwriting standards." 2007-EMX1 Prospectus at 12.

m. "In the case of a Designated Seller Transaction" – such as the EMX transactions – "the applicable underwriting standards will be those of the seller or of the originator of the mortgage loans . . . ." 2007-EMX1 Prospectus at 12.

n. "In addition, the depositor purchases loans that do not conform to the underwriting standards contained in the Guide." 2006-HSA4 Prospectus at 13.

o. "The underwriting standards used in negotiated transactions and master commitments and the underwriting standards applicable to loans underlying private securities may vary substantially from the underwriting standards contained in the Guide." 2006-HSA4 Prospectus at 14.

p. "Due to the variety of underwriting standards and review procedures that may be applicable to the loans included in any pool, the accompanying prospectus supplement, in most cases, will not distinguish among the various underwriting standards applicable to the loans nor describe any review for compliance with applicable underwriting standards performed by the depositor or Residential Funding Corporation." 2006-HSA4 Prospectus at 14.

q. "Because an automated underwriting system will only consider the information that it is programmed to review, which may be more limited than the information that could be considered in the course of a manual review, some mortgage loans may be approved by an automated system that would have been rejected through a manual review." 2006-HSA4 Prospectus at 14.

r. "[T]here could be programming inconsistencies between an automated underwriting system and the underwriting criteria set forth in Residential Funding Corporation's Seller Guide, which could in turn be applied to numerous mortgage loans that the system reviews." 2006-HSA4 Prospectus at 14.

s. "We cannot assure you that an automated underwriting review will in all cases result in the same determination as a manual review with respect to whether a mortgage loan satisfied Residential Funding Corporation's underwriting criteria." 2006-HSA4 Prospectus at 14.

28. The Debtors would argue that these risk disclosures must be considered when evaluating the scope and/or interpretation of the applicable representations and warranties, and that where the disclosure clearly state the data provided elsewhere in the transaction documents is less than 100% reliable, the scope and/or interpretation of the corresponding warranties is therefore more limited. *See, e.g., Assured Guar. Mun. Corp. v. Flagstar Bank*, 2011 U.S. Dist. LEXIS 102722, at *13 (S.D.N.Y. Sept. 8, 2011), amended Oct. 27, 2011 (Rakoff, J.) ("[I]t is black letter law that the provisions of a contract or a related set of contracts should be read as a whole and every effort should be made to give them consistent meaning in their overall context") (citing *Perreca v. Gluck*, 295 F.3d 215, 224 (2d Cir. 2002) (it is a "cardinal principle of contract construction that a document should be read to give effect to all its provisions and to render them consistent with each other," and, accordingly, "all provisions of a contract [should] be read together as a harmonious whole, if possible.")). Thus, for example, the Debtors would argue that because the risk disclosures make clear that owner-occupancy data is frequently self-reported by borrowers, and that self-reported data is the basis for the calculations provided by Debtors, it

cannot be a breach of the owner occupancy representations if it turns out some of the self-reporting was inaccurate.

29. The Institutional Investors, however, would likely argue that regardless of their skepticism as to the quality of the underwriting or accuracy of the data supplied, the very purpose of a warranty is that it obviates the need to do additional investigating, including by probing the discrepancies between the warranties and the risk disclosures. *See CBS, Inc. v. Ziff-Davis Publ'g Co.*, 553 N.E.2d 997, 1001-02 (N.Y. 1990); *see also Metro. Coal Co. v. Howard*, 155 F.2d 780, 784 (2d Cir. 1946) (L. Hand, J.) ("A warranty . . . is intended precisely to relieve the promise of any duty to ascertain the fact for himself."); *Credit Suisse Secs. (USA) LLC*, 2011 N.Y. Misc. LEXIS 4787, at *17 ("[W]here a plaintiff has gone to the trouble to insist on a written representation [or warranty] that certain facts are true, it will often be justified in accepting that representation [or warranty] rather than making its own inquiry") (citation and emphasis omitted)).

30. To illustrate the complexity of the issue, just one of the many key potential disputes likely to be litigated for a large number of Trusts arises with respect to alleged borrower fraud. Some transactions contain an express representation that "[n]o fraud or misrepresentation has taken place in connection with the origination of any Mortgage Loan." *See, e.g.,* 2006-QS5 Assignment and Assumption Agreement at 8, § 4(hh); 2006-S12 Assignment and Assumption Agreement at 9, § 4(xxxvii). Those representations pose their own challenges in terms of determining what constitutes "fraud or misrepresentation."

31. Many of the Debtors' securitizations, however, do not contain an express "fraud representation," but contain language in the representations and warranties that plaintiffs have argued is the equivalent of a fraud representation.

32. For example, a number of the Debtors' Sale Agreements include warranties as to the accuracy of the Mortgage Loan Schedules accompanying the Trust documents. *See, e.g.,* 2005-EMX3 Assignment and Assumption Agreement, Sec. 4(xxviii) ("The information set forth in the Mortgage Loan Schedule with respect to each Mortgage Loan or the Mortgage Loans is true and correct in all material respects as of the date or dates respecting which such information is initially furnished."); 2006-HSA2 Home Equity Loan Purchase Agreement, Sec. 3.1(b)(ii) (similar language).

33. The Mortgage Loan Schedules vary in complexity from one securitization to the next, but the Schedules frequently include information about debt-to-income ratios, loan-to-value ratios, and owner-occupancy status.

34. In many cases, particularly for securitizations on the RALI and RFMSII shelves, the "income" data from which the "debt to income" ratio is derived is based on a borrower's stated income, and not on W-2s or pay stubs collected as part of the loan application process.

35. Stated income loans were clearly permitted under various of the Debtors' loan programs and did not require verification of the borrower's actual income. The consequence of not requiring income documentation meant that the incomes stated by borrowers could be inaccurate, inflated, or even fraudulent, and the Debtors may not have any express obligation to investigate them for accuracy. As described above, these facts were disclosed in the Prospectuses for securitizations containing stated income loans.

36. Plaintiffs in representation and warranty litigation have alleged that, by representing that the Mortgage Loan Schedules were accurate, the Debtors indirectly represented that the underlying income data were truthful and not fraudulent. *See, e.g.,* Complaint, *Fin. Ins. Guar. Corp. v. Residential Funding Co., LLC* (No. 1:11-cv-09736-PAC) (S.D.N.Y.), Complaint

at ¶ 81, Doc. 1 ("RFC provided information to FGIC concerning Mortgage Loans . . . . This information included schedules that set forth statistics about the loan pool. The schedules purported to describe key characteristics relevant to the assessment of risk, including weighted averages of FICO scores and DTI and CLTV ratios. . . . In turn, . . . RFC represented that all the information in those schedules 'is true and correct in all material respects as of the date or dates respecting which such information is furnished.'"); First Amended Complaint, *MBIA Ins. Corp. v. Residential Funding Co., LLC*, (No. 603552/2008) (N.Y. Sup. Ct. March 19, 2010), at ¶ 57 ("RFC's breaches of its representations and warranties establish that the information conveyed to MBIA, including the schedules in the Offering Documents containing DTI and CLTV statistics for the mortgage loan pools . . . was materially false. Notably, the DTI and CLTV statistics for the mortgage loan pools contained in the Offering Documents are based on 'stated incomes' and appraisals that are grossly inflated and unreasonable.").

37. For such securitizations, the Debtors would vigorously dispute plaintiffs' interpretation. On the contrary, the Debtors' position is that they only warranted that the data in the Schedules was consistent with the data in their records, not that it was actually true; and that if the other transaction documents disclosed a potential reason for inaccuracy in the data, such as the use of stated income underwriting, then there is no basis for interpreting the representation otherwise.

38. Although I have been unable to locate any case law squarely addressing the correct interpretation of this representation, there is at least some risk that a Court will accept plaintiffs' arguments that, by representing the Schedules are "accurate," the Debtors could be found to have warranted the *truth* of the information contained in them. Such a conclusion could find support in general contract principles applying the "plain meaning" of contractual language,

or in extrinsic evidence if the court deems the contractual language ambiguous. *See, e.g., LaSalle Bank Nat'l Ass'n v. Merrill Lynch Mortg. Lending, Inc.*, 2007 U.S. Dist. LEXIS 59303, at *21-*25 (S.D.N.Y. Aug. 13, 2007).

39. Likewise, as the various Prospectuses and Prospectus Supplements clearly disclose, the property value data underlying the calculation of a loan's loan-to-value ratio (as included on a Mortgage Loan Schedule) may be derived from drive-by appraisals, automated valuation models, or stated values, depending on the applicable underwriting guidelines for that loan; and owner-occupancy data is typically based on what the borrower's stated intention is at the time of loan closing, not what actually occurs (or even what the borrower actually intends). These other aspects of the Mortgage Loan Schedules may also be subject to attack by the Institutional Investors for alleged breach of the "accuracy" representation, depending on what re-underwriting of the individual loan files reveals.[3] Other data on certain Schedules may be subject to a similar argument. These issues are starting to be litigated in different types of RMBS cases around the country, but no consensus has yet emerged from the courts to review these issues. *See, e.g., Mass. Mut. Life Ins. Co. v. Countrywide Fin. Corp.*, 2012 U.S. Dist. LEXIS 121702, at *9-10 (C.D. Cal. Aug. 17, 2012) (Pfaelzer, J.) (holding issuer cannot be liable in investor litigation for misrepresentations of owner occupancy data where information was furnished by borrowers); *Mass. Mut. Life Ins. Co. v. Residential Funding Co., LLC,* 843 F. Supp. 2d 191, 204-05 (D. Mass. 2012) (same).

40. As another example, for a number of Trusts, the relevant agreements included a representation that:

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[3] The Debtors did not re-underwrite substantial numbers of loans in connection with defending the pre-petition litigation matters because the bankruptcy petition was filed on the eve of that work beginning in earnest in the first case to reach the expert phase.

> [T]here is no material default, breach, violation or event of acceleration existing under the terms of any Mortgage Note or Mortgage and no event which . . . would constitute a material default, breach, violation or event of acceleration under the terms of any Mortgage Note or Mortgage.

2005-EMX3 Assignment and Assumption Agreement, at 4(xxviii); *see also* 2006-HSA2 Home Equity Loan Purchase Agreement, at 3.1(b)(xix).

41. Plaintiffs in representation and warranty litigation have argued that certain commonly-used Notes and Loan Application forms contain a promise by the borrower that the information provided by the borrower in obtaining the loan is true. Where borrowers make those representations, breach of them is typically described in the loan documents as a "material event of default." Thus, plaintiffs argue, if a borrower lied in his or her loan application, that is a "material event of default" and a breach of the related representation by the issuer (here, one of the Debtors) for which the issuer should be strictly liable, regardless of whether applicable underwriting guidelines required it to investigate the truthfulness of the statements in the loan application and regardless of whether it knew of the borrower's fraud.

42. There are a number of counter-arguments the Debtors could mount (and have mounted) to such an argument, including testimony and expert opinions that such an interpretation is contrary to the parties' intent and the industry standard interpretation of the "material event of default" language. However, at least some courts have agreed with the plaintiffs' view as to this representation. *Trust for the Certificate Holders of the Merrill Lynch Mortg. Pass-Through Certificates Series 1991-C1 v. Love Funding Corp.*, 2005 U.S. Dist. LEXIS 23522, at *26-30 (S.D.N.Y. Oct. 7, 2005), *reversed and remanded on other grounds*, 591 F.3d 116 (2d Cir. 2010), *judgment entered on remand*, 736 F. Supp. 2d 716 (S.D.N.Y. 2010).

43. In *Love Funding*, the Southern District of New York granted summary judgment to the Trust/plaintiff in a commercial mortgage-backed securities case for breach of a virtually identical "material event of default" representation, concluding that the seller of the loans was "strictly liable" for an event of acceleration caused by the borrower's fraud, even if the seller lacked knowledge of the fraud. *Id.* at *29-*30. *See also Citimortgage v. OCM Bancorp, Inc.*, 2011 U.S. Dist. LEXIS 45437, at *19 (E.D. Mo. Apr. 27, 2011) (holding that, regardless of whether applicable guidelines require it, underwriters must evaluate the "reasonableness" of a borrower's income in a stated income transaction).

44. Indeed, when MBIA, in its case against RFC, sought to issue subpoenas to thousands of borrowers' employers to try to determine whether the borrowers had committed fraud, it successfully relied on this argument to obtain the discovery, notwithstanding the absence of an express fraud representation in the applicable Sale Agreements. *MBIA Ins. Corp. v. Residential Funding Co., LLC* (603552/2008), MBIA Letter To Court, Doc. 83:6-8 (N.Y. Sup. Ct. Feb. 17, 2011); *id.*, Hr'g Tr., Doc. 118 at 34:21-26, 35-38 (N.Y. Sup. Ct. Mar. 3, 2011).

45. There are some distinguishing features to the *Love Funding* opinion that render it not directly applicable to the claims here: the defendant in that case did not dispute either (1) whether the "material event of default" representation was intended to be limited to non-payment defaults, or (2) the correctness of a prior Louisiana state court determination that the borrower's fraud at origination constituted an "event of default" under the terms of the mortgage. Thus, the arguments Debtors might advance were not specifically tested in *Love Funding*. However, the court in *Love Funding* did find that "the meaning [of the representation at issue] was unambiguous," despite the fact that the parties "urge[d] different interpretations." *Id.* at *27-28.

46. Accordingly, there is uncertainty in the developing case law – and certainly with respect to the Debtors' specific transaction documents – as to the correct interpretation of the scope of the representations and warranties at issue in the RMBS Trust Settlement.

B. Existence of a Breach

47. The only reliable way to determine whether a loan in fact complies with an underwriting-related representation or warranty – such as those relating to loan-to-value ratios, debt-to-income ratios, borrower misrepresentations, or compliance with federal or state law, all of which are commonly alleged to have been breached – is to review and re-underwrite the actual loan files. This task is time-consuming, expensive, and fraught with differences in judgment and opinion, as predicting or assessing a borrower's likely ability to pay in the future is not an empirical exercise.

48. In addition to the mortgage and the note, loan files typically contain the borrower's loan application, supporting income documentation (if required), credit report, appraisals (if required), Truth In Lending Act disclosure forms, and other documents relating to the evaluation of the borrower's creditworthiness.

49. Debtors RFC and GMAC Mortgage, who originated and/or acquired the loans prior to securitization, each published underwriting guidelines generally governing the process of evaluating whether a loan met the respective Debtor's standards. In addition, RFC sometimes negotiated specific contracts with third party loan sellers, or negotiated purchase terms for a specific portfolio of loans, that included additional underwriting parameters. For individual loans, Debtors RFC or GMAC Mortgage might also grant an exception to the published guidelines, depending on the circumstances of the particular loan or borrower. These underwriting standards, including the use of exceptions and other variances from the published guidelines, are described in the Prospectus and Prospectus Supplement for each Trust. *See*

Paragraph 26, *infra* (quoting underwriting disclosures from various Prospectuses and Prospectus Supplements).

50. There are frequently ambiguities in how to determine when there has been a breach of an underwriting-related representation or warranty, and loan underwriting and the evaluation of a borrower's creditworthiness are often judgment calls.

51. Thus, litigating the fundamental issue of whether a representation or warranty has even been breached poses evidentiary challenges and injects a high level of uncertainty into the outcome.

52. By way of example, some of the typical underwriting-related disputes that arise in attempting to prove a breach include the following (some of which have already arisen in pre-petition litigation against the Debtors):

a. **Is the granting of exceptions to underwriting guidelines consistent with representations that the underwriting "substantially complies" with the published guidelines?** *See, e.g.,* First Amended Complaint, *MBIA Insurance Corp. v. Residential Funding Company, LLC* (603552/2008) Doc. 28 at ¶¶ 58, 61, 63, 68-69, 78 (N.Y. Sup. Ct. Mar. 19, 2010); Amended Complaint, *MBIA Insurance Corp. v. Countrywide Home Loans, Inc.* (602825/2008), Doc. 9 at ¶¶ 78-79 (N.Y. Sup. Ct. Aug. 24, 2009).

b. **Is the purchase of loans in bulk (a practice that is common in the industry) pursuant to a negotiated set of underwriting criteria consistent with representations that the underwriting "substantially complies" with the published guidelines?** *See, e.g.,* First Amended Complaint, *MBIA Insurance Corp. v. Residential Funding Company, LLC* (603552/2008), Doc. 28 at ¶¶ 62-63, 69, 78 (N.Y. Sup. Ct. Mar. 19, 2010); Amended Complaint, *MBIA Insurance Corp. v. Countrywide Home Loans, Inc.* (602825/2008), Doc. 9 at ¶¶ 1-4 (N.Y. Sup. Ct. Aug. 24, 2009).

c. **Can defects in appraisals be accurately demonstrated through the use of retroactive automated valuation tools (essentially, retroactive appraisal models)?** *See, e.g.*, Amended Complaint, *Fed. Home Loan Bank of Boston v. Ally Fin. Inc.* (1:11-cv-10952-GAO), Doc. 180 at ¶¶ 877-90 (D. Mass. June 29, 2012); Amended Complaint at ¶¶ 628-35, *Fed. Home Loan Bank of Indianapolis v. Banc of Am. Mortg. Secs. Inc.*, 49D05 10 10 PL 045071 (Marion, Indiana Sup. Ct. July 14, 2011); Corrected Amended Complaint at ¶¶

619-26, *Fed. Home Loan Bank of Chicago v. Banc of Am. Funding Corp.*, 10 CH 45033 (Circuit Court of Cook County, Illinois Apr. 8, 2011).

d. **Do issuers who acquire and then sell stated income loans into securitizations have a duty to evaluate whether the borrower committed fraud in stating an inflated income, even where there is no fraud representation in the securitization documents?** *Compare Citimortgage v. OCM Bancorp, Inc.,* 2011 U.S. Dist. LEXIS 45437, at *19 (E.D. Mo. Apr. 27, 2011) (holding that, regardless of whether applicable guidelines require it, underwriters must evaluate the "reasonableness" of a borrower's income in a stated income transaction) *with New Jersey Carpenters Health Fund v. NovaStar Mortg., Inc.,* 2012 U.S. Dist. LEXIS 56010, at *18-21 (S.D.N.Y. Mar. 29, 2012) (finding it unreasonable for an investor to rely on statements about the underwriting of stated income loans when the same set of transaction documents contained extensive disclosures about the risks of such loans).

e. **Have issuers who conducted "due diligence" on only a sample of loans coming through the process breached their representation that loans were underwritten according to "generally accepted" standards?** *Luminent Mortg. Capital, Inc. v. Merrill Lynch & Co.*, 652 F. Supp. 2d 576, 580-581 (E.D. Pa. 2009) (in assessing sufficiency of complaint alleging securities fraud arising from sale of RMBS, stating that the "quality of the issuer's due diligence examination was a material characteristic of all the Certificates" and that, "[a]s part of its due diligence, Defendant [] reviewed a large sample of the loan documentation and conducted a detailed statistical analysis to ensure that the quality of the loans was consistent with the expected yields").

f. **Where issuers have warned that owner-occupancy data is self-reported, can they nonetheless be held liable for owner-occupancy data that turns out to be inaccurate?** *Massachusetts Mut. Life Ins. Co. v. Countrywide Fin. Corp.*, 2012 U.S. Dist. LEXIS 121702, at *6-10 (C.D. Cal. Aug. 17, 2012) (Pfaelzer, J.) (holding issuer cannot be liable in investor litigation for misrepresentations of owner occupancy data where information was furnished by borrowers); *MassMutual v. Residential Funding Co., LLC,* 843 F. Supp. 2d 191, 204-05 (D. Mass. 2012) (same).

g. **Were points and fees correctly calculated and disclosed to borrowers (in order to comply with state and federal requirements)?**

h. **Does the absence of certain documents in a loan file – such as a written underwriting approval, exception request form, or Patriot Act disclosure form – constitute a breach of a representation that the loan "substantially complied" with applicable underwriting guidelines, even if irrelevant to the borrower's actual creditworthiness?**

53. From my experience representing the Debtors in RMBS cases over the past several years, I am aware that the Debtors face a number of factual hurdles in answering these questions, and there is great uncertainty in the outcome of any one of these issues.

54. By way of example, the parties in the pre-petition RMBS cases involving the debtors have largely disagreed as to which were the applicable underwriting guidelines and whether the use of "exceptions" as disclosed in the Prospectus was permissible.

55. On the one hand, RFC developed evidence, including the deposition testimony of a number of witnesses and the language of the Prospectuses, showing that RFC considered loans with exceptions, loans processed through automated underwriting systems, or loans acquired pursuant to negotiated criteria agreements all to be in "substantial compliance" with the applicable guidelines. The evidence showed that the Debtors' underwriters, quality audit staff, and those managing the securitization process followed consistent processes, gave considerable time and attention to individual underwriting decisions, never intended or knowingly allowed "bad" loans to be securitized, often voluntarily undertook to weed out weak collateral, and made extensive efforts to fully disclose to counterparties and investors any risks present in the collateral pool, including through the creation and expansion of the "Vision" website, a "best in class" tool for tracking historical collateral performance at a loan level for each securitization and shelf.

56. On the other hand, the Institutional Investors and/or Trustees may attempt to point to the plain language of the published RFC Client Guide to suggest that deviations from it (including exceptions and negotiated criteria) were not authorized. They may try to develop evidence that there were either certain controls lacking in the Debtors' underwriting and securitization processes, or failures to document underwriting decision-making, that (they will

likely argue) demonstrate the process was flawed. Underwriting decisions are frequently a judgment call, so it is likely the Institutional Investors and/or Trustees will be able to find examples where reasonable underwriters may disagree, and point to those as examples of breaches.

57. For example, the Institutional Investors and/or Trustees may look to stated income loan underwriting practices and try to advance the theory that the Debtors had an affirmative obligation routinely to evaluate the reasonableness of every stated income loan, notwithstanding the clear language of the Client Guide and the risk disclosures to the contrary. They may likewise attempt to mount an attack on the Debtors' use of automated decisioning tools, (which was externally available to loan sellers and allowed for a preliminary assessment of whether the loan was acceptable to the Debtors), arguing that because the Debtors knew that automated programs might evaluate a loan application differently than a human underwriter would (despite that this is clearly disclosed in the Prospectus and Prospectus Supplement), their use of such tools was problematic. And, as with any document-intensive complex litigation matter—particularly where the events in question are several years in the past—the Institutional Investors and/or Trustees are likely to attempt to point to the absence of documentation as evidence that proper processes were allegedly not followed.

58. Finally, it is typical for plaintiffs to focus on the small handful of self-critical memos or emails that inevitably exist in any business process of this size and complexity, and attempt to present those out of context. I considered the potential impact of these types of random documents on a judge or jury, regardless of the weight of the evidence otherwise suggesting a generally robust and disciplined underwriting process.

59. Thus, the Debtors' ability to meet the various representations and warranties relating to loan underwriting is an issue for which both the law and the facts are likely to be disputed. While the Debtors would hotly contest any allegation that underwriting representations were breached, there is potential risk for the Debtors of an adverse outcome on each of these issues if a representation and warranty case were to go to trial.

C. Materiality of Breach

60. Under black-letter contract law, a breach must be "material" to be actionable.

61. In addition, the applicable contract language for breaches of representations and warranties in these Trusts adds an express materiality component, requiring that the breach be one that "materially and adversely affects the interests of any Securityholders or the Credit Enhancer . . . in such [Loan]". *See, e.g.,* 2006-HSA2 Home Equity Loan Purchase Agreement at 3.1; 2006-QO8 Pooling and Servicing Agreement at 2.03 (actionable breach is one that "materially and adversely affects the interests of the Certificateholders in any Mortgage Loan").

62. Under general contract principles, whether a "material" breach has occurred is typically a question of fact. 23 Williston on Contracts (4th ed.) § 63.3 (quoted in *Metro. Nat'l Bank v. Adelphi Acad.*, 886 N.Y.S.2d 68, 68 (N.Y. Sup. Ct. 2009)). To be "material," a breach must "go to the root of the agreement" and be "so fundamental to a contract that the failure to perform that obligation defeats the essential purpose of the contract or makes it impossible for the other party to perform . . . ." *Id.*

63. To date, I am aware of no significant opinions relating to materiality issued specifically in cases brought by Trustees for breaches arising out of residential mortgage-backed securities. However, the issue of whether a breach is material or causes a material and adverse effect has been addressed a handful of times in cases involving contracts for the purchase of

loans, commercial mortgage-backed securities cases, and in residential mortgage-backed securities cases brought by monoline insurers.

64. Generally, the most significant materiality disputes arise because the plaintiff (whether Trustee or insurer) seeks to restrict the materiality analysis to the closing date of the securitization. Under plaintiffs' analysis, the breach of the representation or warranty has occurred as of the closing date, so, plaintiffs argue, subsequent events are irrelevant to the evaluation of whether the breach was material.

65. Defendants argue, in contrast, that certain breaches are not material because they do not ultimately have a "material and adverse effect" on the plaintiff, and facts subsequent to the closing date are relevant to that analysis.

66. For example, some loans may breach a representation or warranty, but if the borrower continues to pay his or her loan timely, there is no "effect" on the investor. Similarly, if the loan is found to breach an underwriting representation related to stated income, undisclosed debts, property value, etc., but the reason the borrower ultimately stopped paying is because he passed away, then the breach itself has no "effect" on the investor.

67. These issues overlap with causation issues, discussed further below.

68. In two commercial mortgage-backed cases to address the issue, the dispute arose in the context of motions *in limine* to preclude evidence relating to post-closing performance of the loans. *See Wells Fargo Bank, N.A. v. LaSalle Bank Nat'l Ass'n,* 2011 U.S. Dist. LEXIS 35343 (W.D. Okla. Apr. 1, 2011); *Wells Fargo Bank, N.A. v. LaSalle Bank Nat'l Ass'n,* 2011 U.S Dist. LEXIS 145026 (D. Nev. Dec. 15, 2011). Both cases were brought by trustees seeking to enforce loan repurchase provisions for breaches of representations and warranties.

69. The Oklahoma court addressed Wells Fargo's motion *in limine* to exclude evidence regarding the decline of the economy and mortgage and real estate markets because "as of the closing date of the securities, the value of the certificateholders' interests and the underlying mortgages were materially and adversely affected by Defendant's alleged breaches of warranties." *Wells Fargo,* 2011 U.S. Dist. LEXIS 35343, at *24. The court held that "[e]vidence regarding the post-securitization market meltdown is relevant only if Plaintiff asserts material and adverse effects occurred after the securitization closing date." *Id.* at *24. Similarly, the Nevada court held that "[i]f plaintiff limits its material and adverse effects claim to evidence available as of the closing date, evidence or testimony of general post-closing economic conditions is irrelevant" and must be excluded. *Wells Fargo Bank,* 2011 U.S Dist. LEXIS 145026, at *4.

70. Likewise, courts interpreting loan sale agreements have found evidence that a buyer would not have purchased the loan "had they known about the negative information" that was the basis for an alleged breach of representation and warranty sufficient to defeat summary judgment. *Lehman Bros. Holdings, Inc. v. Laureate Realty Servs.,* 2007 U.S. Dist. LEXIS 76940, at *36-37 (S.D. Ind. Sept. 28, 2007). This again suggests a risk that a court may find it is the falsity of the information available to the buyer at the time of closing that gives rise to the "material and adverse effect," and not the subsequent performance of the loan in question. *See also* Material and Adverse Opinion of Professor Barry E. Adler (relating to the action *In the Matter of the Application of The Bank of New York Mellon*, No. 651786/2011 (N.Y. Sup. Ct. filed June 29, 2011) (pending before Kapnick, J.)), *available at* http://www.cwrmbssettlement.com/docs/Opinion%20Regarding%20Material%20and%20Adverse%20Affect.pdf, at 12 (last visited September 24, 2012) (discussing interpretation of similar

language in light of *Laureate* and *Wells Fargo* decisions and concluding it "is not possible to conclude with any confidence how a court would interpret" such language).

71. Most recently, in the monoline insurance context, Judge Rakoff issued an opinion denying summary judgment in *Assured Guaranty Municipal Corp. v. Flagstar Bank, FSB,* No. 11 Civ. 2375 (JSR) (S.D.N.Y. Sept. 25, 2012), in which he relied on the "dictionary definitions" of "material" and "adverse" to conclude that plaintiffs in breach of representation and warranty cases need not prove that the breach "causes . . . actual loss" in order to satisfy the "material and adverse breach" element. *Id.* at 9-10.

72. Courts interpreting this type of language in the commercial mortgage-backed securities context have also split on the question of whether plaintiffs can be required to meet a "double materiality" standard; that is, whether plaintiff must prove both that the breach was a material breach *and*, as a separate element, that the breach had a "material and adverse" effect on the Institutional Investor. *Compare Wells Fargo Bank NA v. LaSalle Bank Nat'l Ass'n*, 3:07-cv-00449-MRM, Hr'g Tr., Doc. 366 at 5:11-15 (S.D. Ohio Nov. 13, 2009) ("I agree with Defendant's interpretation of the relevant case law, that Plaintiff must prove as required by New York law that there is a material breach of a representation and warranty . . . .") *with Wells Fargo Bank NA v. LaSalle Nat'l Ass'n*, 2011 U.S. Dist. LEXIS 145026, at *11 (D. Nev. Dec. 15, 2011) ("[T]he court does not endorse defendant's contention that the double materiality requirement is well-supported by the relevant case law") and Wells Fargo Bank, N.A. v. LaSalle Nat'l Ass'n, No. CIV-08-1125-C, Mem. Op. & Order Doc. 323:41 (W.D. Okla. Dec. 10, 2010) (declining to follow *Wells Fargo* S.D. Ohio decision). Thus, it is unclear what burden of proof a court in a case between Debtors and the Trustees or Institutional Investors might place on the plaintiffs regarding materiality.

73. In addition to the issues discussed above, other, more mundane disputes as to "materiality" are bound to arise in any litigation concerning residential mortgage-backed securities. For example, as noted above, it was industry standard during the relevant time period to grant "exceptions" to underwriting guidelines from time to time, based on an overall assessment of the borrower's creditworthiness. Thus, while published guidelines might require a minimum FICO score of 680 for certain types of loans, an underwriter could approve a borrower with a lower FICO score (say, 640) based on an evaluation of other features of that borrower or loan, such as reserves in excess of the minimum required amount, or a lower debt-to-income ratio than required. Disputes are bound to arise as to whether a 40-point FICO deviation, in the overall context of that loan, is or is not "material." With dozens of underwriting parameters to evaluate for thousands of individual loans, any litigation over such issues is certain to be extremely costly and fraught with risk.

D. <u>Causation</u>

74. As noted above, a hotly contested issue in representation and warranty litigation is proximate cause. This has most recently arisen in the context of RMBS cases pursued by monoline insurers, but has also been addressed by commercial mortgage-backed cases.

75. The primary legal dispute, which is intertwined with the materiality issues discussed above, is whether the actual cause of the loan's failure is a defect in the underwriting.

76. Courts have confirmed that the market collapse can serve as a defense to securities claims under the federal securities laws, as well as common law claims for fraud and negligent misrepresentation. *See, e.g., In re Washington Mut. Mortg. Backed Secs. Litig.*, 2012 U.S. Dist. LEXIS 102064, at *41-42 (W.D. Wash. July 23, 2012) (denying summary judgment on Securities Act claim where factual issues existed regarding, among other things, whether

market collapse caused plaintiffs' losses); *see also Abu Dhabi Commercial Bank v. Morgan Stanley & Co., Inc.*, 2012 U.S. Dist. LEXIS 119671, at *101-103 (S.D.N.Y. Aug. 17, 2012) (same as to fraud and negligent misrepresentation claims). *But see MBIA Insurance Corp. v. Countrywide Home Loans, Inc.*, 87 A.D.3d 287, 296 (1st Dep't 2011) (declining to rule at motion to dismiss stage that MBIA's losses were caused by the housing and credit crisis).

77. Furthermore, as a general matter, causation is an element of a contract claim under New York law. A plaintiff, for example, must show that the alleged breach of contract was the "direct and proximate" cause of the plaintiff's injuries. *See Freund v. Washington Square Press, Inc.*, 34 N.Y.2d 379, 379 (1974). Accordingly, general contract law allows defendants to present evidence of the market collapse as the cause of a plaintiff's losses in RMBS cases.

78. Only a handful of cases, however, have examined this causation issue in the specific context of contractual breach of representation and warranty claims (or repurchase claims). While some of these cases touch on the market collapse as a defense to plaintiffs' claims, no court has issued a definitive ruling on the issue.

79. The only two cases involving trustee repurchase demands I am aware of are the two *Wells Fargo* evidentiary decisions discussed above, in which the courts excluded *in limine* any evidence of the market collapse so long as the plaintiff trustee limited its evidence to "material and adverse effects as of the closing date." *See Wells Fargo Bank, N.A. v. LaSalle Bank Nat'l Ass'n*, 2011 U.S. Dist. LEXIS 35343, at *23-24 (W.D. Okla. April 1, 2011); *Wells Fargo Bank, N.A. v. LaSalle Bank Nat'l Ass'n*, 2011 U.S. Dist. LEXIS 145026, at *3-4 (D. Nev. Dec. 15, 2011). In both cases, however, the courts did not provide any legal analysis supporting

this conclusion. Accordingly, these decisions appear to have limited persuasive or precedential value.

80. In another case, *LaSalle Bank Nat'l Assn. v. Citicorp Real Estate, Inc.*, 2002 U.S. Dist. LEXIS 1730 (S.D.N.Y. Feb. 5, 2002), which is a non-trustee case involving the sale of a loan, the court stated that plaintiffs had properly pleaded a "material and adverse effect" because the alleged breaches could constitute a "partial cause" or may have "contributed" to the loan's eventual default. *Id.* at *13. Under this analysis, even a court looking to the eventual outcome of the loan may accept a minimal showing of partial causation by plaintiff as sufficient for plaintiff to meet its burden.

81. Courts in the monoline insurance context have addressed the causation issue – most notably Justice Bransten in the *MBIA Insurance Co. v. Countrywide Financial Corp.* case. There, Justice Bransten held that MBIA was "not required to establish a direct causal connection between proven warranty breaches by [defendant] and MBIA's claims payments made pursuant to the insurance policies at issue" in order to prove that a breach was material. 936 N.Y.S.2d 513, 527 (2012). In the same opinion, Justice Bransten nonetheless held that MBIA must still "prove that it was damaged as a direct result of the material misrepresentations," and denied MBIA's motion to strike Countrywide's defenses based on the intervening or superseding cause of the economic crisis. *Id.* at 522, 527. However, the court's ruling—in addition to providing mixed guidance—was based in substantial part on applicable insurance statutes, which are not relevant to the Investor- or Trustee-initiated claims at issue in the RMBS Trust Settlements. *See also Syncora Guar. Inc. v. EMC Mortg. Corp.*, 2012 U.S. Dist. LEXIS 84937, at *32 (S.D.N.Y. June 19, 2012); *Assured Guaranty v. Flagstar,* No. 11 Civ. 2375 (JSR) (S.D.N.Y. Sept. 25, 2012), at 10-12 (also noting that the contractual repurchase language does not tie the repurchase

obligation to default of the loan). It is unclear whether any portion of these rulings can be imported into the Institutional Investor / Trustee litigation context, or to what extent courts will look to the monoline insurance litigation for guidance.

82. No court has yet addressed the issue in an Institutional Investor-initiated RMBS representation and warranty case, so the outcome of the causation issues remains highly uncertain.

E. <u>Harm and Damages</u>

83. Defendants in representation and warranty litigation, including the Debtors, have consistently maintained that the sole remedy for breaches of representations and warranties is repurchase of the defective loan. That conclusion is supported by the plain language of the Sale Agreements. *See, e.g.,* 2006-HSA2 Home Equity Loan Purchase Agreement at 3.1 ("Upon discovery . . . of a breach of any representation and warranty . . . which materially and adversely affects the interests of any Securityholders or the Credit Enhancer . . . the Seller shall, within 90 days of its discovery or receipt of notice of such breach, . . . either (i) cure such breach in all material respects or (ii) . . . either (A) repurchase such [Loan] . . . or (B) substitute one or more Eligible Substitute Loans . . . ; provided that the seller shall have the option to substitute . . . only if such substitution occurs within two years following the Closing Date."); 2006-QO8 Pooling and Servicing Agreement at 2.03 (similar language).

84. The issue of damages has not come up in Trustee litigation involving RMBS, except as to the Bank of New York Mellon and Lehman Brothers settlements. Meanwhile, Plaintiffs in the monoline context have argued with some success – based in large part on applicable insurance statutes that have no bearing on the Institutional Investors' claims – that

they are instead entitled to the monetary equivalent of rescission of their insurance agreements. *See, e.g., MBIA Ins. Co. v. Countrywide,* 936 N.Y.S.2d 513, 522-24 (N.Y. Sup. Ct. 2012).

85. In considering the risk to the Debtors of litigating the RMBS Trust Settlement claims, I had to take into account the possibility—however remote—that the Institutional Investors would attempt to import concepts of rescission into their claims here, in order to maximize or increase their potential recovery. Such a theory could inflate the Institutional Investors' claimed damages by attempting to hold the Debtors responsible for all losses suffered by the Trusts, regardless of whether they are attributable to breaches of representations and warranties, based on the argument that the Institutional Investors would never have purchased the certificates had they known of the alleged breaches.

86. Even if the Institutional Investors do not attempt to pursue a rescission-like theory, the parties will undoubtedly dispute the extent to which any losses suffered by the Trusts are actually attributable to breaches of representations and warranties.

87. In addition, the parties will almost certainly dispute whether the Institutional Investors can recover for loans that breach representations and warranties, but have not defaulted. This dispute flows directly from the proximate cause issues discussed above. If the Institutional Investors can recover for loans that have not defaulted—and perhaps even loans that have been fully paid off, as MBIA's counsel suggested in arguing the issue before Justice Bransten in the *Countrywide* case—then their damages could theoretically exceed even the actual and estimated losses to the Trusts.

88. Finally, as noted in footnote 1, it is possible the Institutional Investors will pursue some tort claims, which could expose the Debtors to a different potential damages calculation and the prospect of having to litigate punitive damages issues.

89. These risks and uncertainties as to the basic methodology for calculating damages relating to the Institutional Investors' claims are an important factor I considered in reaching my conclusion.

III. ADDITIONAL DEFENSES

90. In addition to the elements of a proposed plaintiff's cause of action for breaches of representations and warranties or breaches of the repurchase obligation, I reviewed various potential affirmative defenses available to Debtors. The strengths and weaknesses of these affirmative defenses also were factors in my conclusion. The three primary affirmative defenses I evaluated were (1) statute of limitations, (2) plaintiff's knowledge of the risk and/or failure to conduct appropriate due diligence, and (3) the intervening cause of the housing crisis.

Statute of Limitations

91. The Trusts included in the RMBS Trust Settlement were issued between 2004 and 2007.

92. The statute of limitations for contract claims in New York is six years, and no discovery rule that would extend the time period is available for contract claims. NY CPLR § 213(2); *Hernandez v. Bank of Nova Scotia,* 908 N.Y.S.2d 45, 46 (N.Y. App. Div. 1st Dep't 2010).[4]

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4 As noted at the outset of this Declaration, my analysis focuses on the breach of contract claims because they pose the greatest risk to Debtors. However, I note that the statute of limitations for fraud in New York is either six years, or two years from the time the plaintiff discovered or should have discovered the fraud. N.Y. CPLR § 213. The analysis as to when the statute was triggered on fraud claims is likely highly factual; however courts have considered the fact of widely-publicized allegations of underwriting problems as evidence that the plaintiff "should have discovered" the fraud at that point. *See, e.g., Stichting Pensioenfonds ABP v. Countrywide Fin. Corp.,* 802 F. Supp.2d 1125, 1134-39 (C.D. Cal. 2011). The analysis above with respect to the timing of repurchase demands as a trigger will likely apply to tort claims as well.

93. Accordingly, one argument we likely would have considered making if the claims were litigated is that claims for breach of representation and warranty arising from securitizations issued prior to May 14, 2006 are time-barred.

94. This argument is supported by a number of courts in a variety of breach of warranty contexts. *See, e.g., Structured Mortg. Trust 1997-2 v. Daiwa Fin. Corp.,* 2003 U.S. Dist. LEXIS 2677, *5 (S.D.N.Y. Feb. 25, 2003) (breach occurs at the moment of sale because "the facts warranted in the . . . Agreement were not true when made"); *Lehman Bros. Holdings, Inc. v. Evergreen Moneysource Mortg. Co.,* 793 F. Supp. 2d 1189, 1194 (W.D. Wash. 2011); *see also Cent. Mortg. Co. v. Morgan Stanley Mortg. Capital Holdings LLC,* 2012 Del. Ch. LEXIS 171, at *56 (Del. Ch. Aug. 7, 2012).

95. However, at least one court has held that the breach of the contractual repurchase obligation is a separate claim from that for breach of a representation or warranty. *Lehman Bros. Holdings, Inc. v. Nat'l Bank of Arkansas,* 2012 U.S. Dist. LEXIS 87265, at *12-13 (E.D. Ark. June 25, 2012). Thus, the cause of action for breach of the repurchase obligation is only complete – and the statute of limitations only begins running – once the Debtors fail to repurchase non-conforming loans upon demand.

96. Here, the Institutional Investors have yet to direct the Trustees to make a formal repurchase demand and thus trigger the obligation to repurchase. The applicable contract documents contain no limitation on the time for the Trustees to make such a demand, and indeed, although the Debtors would dispute this in litigation, there is a facially logical argument that none should apply: if a defect is discovered, whenever or however that may be, a remedy should exist to remove that defective loan and make the investors whole.

97. In addition, the Institutional Investors' position – and that articulated by the court in *Bank of Arkansas* – finds some support in the concept of the condition precedent. The Debtors today typically treat the repurchase obligation as only arising when there is a demand for repurchase. Thus, the Institutional Investors may argue, "where a demand is necessary to entitle a person to commence an action, the time within which the action must be commenced shall be computed from the time when the right to make the demand is complete." NY CPLR § 206; *see also Kunstsammlungen Zu Weimar v. Elicofon,* 536 F. Supp. 829, 848-49 (E.D.N.Y. 1981).

98. Thus, while Debtors would have argued that many of the Institutional Investors' claims are time-barred if this dispute were litigated, I must consider as part of my analysis the risk that a court hearing the issues would agree with the *Bank of Arkansas* court and allow a separate claim for breach of the repurchase obligation to proceed.

Plaintiffs' Due Diligence

99. A common inquiry in the monoline insurer litigation context, and under federal securities law in the investor litigation context, is whether the plaintiff undertook any diligence before entering the transaction. For claims arising under the 1933 Securities Act, the relevant inquiry is whether the investor had knowledge of the risks prior to purchasing the securities. For the monoline litigation matters, the question is whether the insurer justifiably relied on the seller's assurances.

100. Accordingly, we considered whether any similar analysis might provide a defense in the context of the kinds of claims resolved by the RMBS Trust Settlements. We found only limited support for importing these concepts into a breach of contract setting such as this one. On the contrary, the bulk of the case law has supported the general rule that because a warranty "is intended precisely to relieve the promise of any duty to ascertain the fact for himself," it

relieves the recipient of any obligation to investigate further. *Metro. Coal Co. v. Howard*, 155 F.2d 780, 784 (2d Cir. 1946) (L. Hand, J.); *see also CBS, Inc. v. Ziff-Davis Publ'g Co.*, 75 N.Y.2d 496, 503-06 (N.Y. 1990); *Credit Suisse Secs. (USA) LLC*, 2011 N.Y. Misc. LEXIS 4787, at *17 ("[W]here a plaintiff has gone to the trouble to insist on a written representation [or warranty] that certain facts are true, it will often be justified in accepting that representation [or warranty] rather than making its own inquiry") (citation omitted).

101. The general rule has a critical exception directly applicable here: "where the seller has disclosed at the outset facts that would constitute a breach of warranty, that is to say, the inaccuracy of certain warranties, and the buyer closes with full knowledge and acceptance of those inaccuracies, the buyer cannot later be said to believe he was purchasing the seller's promise respecting the truth of the warranties." *Merrill Lynch & Co. v. Allegheny Energy, Inc.*, 500 F.3d 171, 186 (2d Cir. 2007). In other words, if the counterparty to the contract "candidly disclosed" that the information supplied (and warranted in the contract to be accurate) was actually inaccurate, the allegedly "relying" party cannot assert a claim for breach of warranty. *Id. See also Galli v. Metz*, 973 F.2d 145, 151 (2d Cir. 1992) ("Where a buyer closes on a contract in the full knowledge and acceptance of facts *disclosed by the seller* which would constitute a breach of warranty under the terms of the contract, the buyer should be foreclosed from later asserting the breach. In that situation, unless the buyer expressly preserves his rights under the warranties . . . , we think the buyer has waived the breach.").

102. However, this exception has been narrowly construed. Indeed, the court in *Assured Guaranty v. Flagstar* recently rejected a diligence-based argument made by Flagstar on summary judgment, holding that *Ziff-Davis* applied and the *Galli* exception did not, because even though Assured received diligence reports identifying actual examples of problematic loans

in the securitization, and had run its own loss models predicting certain losses would occur, that information did not come from the seller/issuer (*i.e.*, Flagstar). *Assured Guaranty Municipal Corp. v. Flagstar Bank, FSB,* No. 11 Civ. 2375 (JSR) (S.D.N.Y. Sept. 25, 2012), at 15-19. Thus, the court reasoned, "[i]f the buyer 'has been informed of the falsity of the facts by some third party,' he has not waived the representations and warranties." *Id.* at 16 (quoting *Rogath v. Siebenmann,* 129 F.3d 261, 265 (2d Cir. 1997)).

103. Debtors would argue that their own risk disclosures are so substantial, and so directly warn against reliance on the corresponding statements in the representations and warranties, that the *Galli* exception applies. However, there is no clear indication that the Debtors would be successful in making such an argument.

"Housing Crisis" Defense

104. There is ample evidence that the true cause of the losses to these Trusts was the massive economic downturn beginning in late 2007 and escalating through 2008 and into 2009.

105. As discussed above, Debtors had developed extensive factual and expert support for this argument.

106. However, in light of some of the court rulings discussed above with respect to materiality and causation, it is possible a court evaluating such claims against the Debtors would preclude the evidence entirely, require the Debtors to prove these facts as an affirmative defense, rather than considering them part of plaintiff's burden to address as part of the "causation" element its claims, or consider the evidence only as a "partial" cause of the loss.

107. Moreover, some of the Institutional Investors may attempt to argue that the housing crisis itself was propelled in part by the business practices of RMBS issuers like the Debtors.

108. Finally, although I believe based on my analysis of the facts that the housing crisis is the greatest single cause for the poor performance of the Trusts, it is not likely the *only* cause of loan failures.

109. Accordingly, a key factor to be considered in weighing the potential outcome of the RMBS Trust Settlement claims is the possibility that the housing crisis defense may not be permitted or may not be entirely persuasive.

Other Intervening Causes

110. Debtors also would argue that a number of issues relating to loan attributes and/or non-underwriting events contributed to the Institutional Investors' losses.

111. For example, a number of the Trusts involve loans with underwriting characteristics that increase the risk of losses. These risks are disclosed in the Prospectuses and Prospectus Supplements, and likely contributed to some of the losses experienced by the Trusts, reinforcing that breaches of representations and warranties were not the sole cause of losses. For example, some Trusts are comprised of loans that are "payment option" loans or otherwise negatively amortize, so that the amounts owed by the borrower could increase over time. Other trusts contain loans with adjustable interest rates or "teaser" rate, such that a borrower may be able to afford an introductory or lower interest rate early in the term of the loan, but later encounters difficulty timely paying when the interest rate increases.

112. In addition, there are a number of causes of delinquencies or defaults that cannot be effectively prevented or controlled through stringent underwriting: borrowers may become disabled or die; they may unexpectedly lose their jobs; the property may be destroyed due to a fire or natural disaster and they may be unable to refinance or sell the home as a result. Some

amount of the losses to the Trusts occur as a result of these everyday, non-underwriting-related events.

113. This type of "causation" evidence is likely to face similar challenges to the causation factors described above, because it relates to events occurring after the closing of the transaction. I considered the likelihood that these alternative causes actually impacted the Trusts' losses, as well as the possibility that a court might not permit such evidence to be introduced (either as to causation or damages), in my analysis of the reasonableness of the RMBS Trust Settlements.

V. <u>EVIDENTIARY ISSUES</u>

114. In reaching my conclusions regarding the reasonableness of the RMBS Trust Settlements, I also had to consider potential evidentiary issues and, as a trial lawyer, make an assessment of whether and how the proof on either side of the case would be admitted.

115. In general, based on my evaluation of the factual record developed so far, I believe the Debtors have very strong factual defenses and solid witnesses. None of the 60+ witnesses deposed in the *MBIA v. RFC* case, for example, testified to anything resembling fraud or knowing misrepresentation in any of the Debtors' practices. Many described good attention to internal controls, and a meaningful effort and genuine desire to be transparent with investors about the risks of the investments.

116. However, there are some practical challenges to the presentation of evidence, separate from the legal and factual merits discussed above.

117. For one, there has been tremendous attrition among the Debtors' employees since the key events occurring from 2004 through about 2008. For example, of the 76 witnesses deposed in the two MBIA cases as of the petition date, 80% were former employees. Some who were current employees at the time of their deposition have since left the company. Most reside

in Minnesota and Pennsylvania, beyond the reach of a New York state court trial subpoena. A few reside as far away as California and Texas. Almost none left the company with any ongoing contractual obligation to cooperate with future litigation.

118. Moreover, most of the former employee witnesses were involuntarily terminated as part of a series of mass layoffs beginning in 2007. Thus, many have a limited sense of loyalty to the Debtors, and while they may have been willing to appear voluntarily once for a deposition to avoid being served with a deposition subpoena, garnering their cooperation for future depositions, let alone trial testimony in another state, would undoubtedly be challenging. Thus, presenting evidence live at trial – which, from my perspective as a trial lawyer, is almost always more meaningful than reading a dry transcript or even replaying videotaped testimony – would be a challenge.

119. Another challenge is posed by the nature of these securitizations, each of which contains thousands of individual loans. As noted above, it has always been the Debtors' position that a repurchase claim requires a loan-by-loan evaluation of *which* loans to repurchase. Plaintiffs in both securitization and representation and warranty cases have argued, with some limited success to date, that a statistical sampling approach is acceptable. *MBIA Ins. Corp. v. Countrywide Home Loans, Inc.*, 2010 N.Y. Misc. LEXIS 6182, at *8-18 (N.Y. Sup. Ct. Dec. 22, 2010) (permitting statistical sampling); Order, Doc. 90, *Fed. Housing Fin. Agency v. UBS Americas, Inc.*, 1:11-cv-07010 (S.D.N.Y. May 8, 2012) (same). Regardless of whether statistical sampling can reliably be used to assess breaches and calculate damages, however, it is clear most judges would not permit the presentation of evidence on thousands of individual loans one by one.

120. Thus, the evidentiary challenge for trial becomes *which* loans to present. While it is my belief based on the available evidence to date that the overwhelming majority of the loans in each collateral pool did not breach any representations and warranties, it is easy for a plaintiff's lawyer to focus in on the relatively few loans that present egregious examples of underwriting problems – what I call the "low hanging fruit."

121. Those examples present a risk to the Debtors that a judge or jury will form an adverse impression based on a small slice of the available evidence, placing the Debtors in the position of attempting to prove a negative. It is often impractical and difficult to shake those kinds of initial impressions effectively.

122. Finally, a trial of this magnitude would be lengthy and expensive, involving weeks of evidence and numerous experts on either side, including experts on the underwriting of the loans, statistical sampling, the impact of the housing crisis, and damages, to name a few. The details of the discovery burdens and cost just to get to that point are more fully described in my prior Declaration; I estimate the burden and cost of pre-trial motion practice and trial itself in this case would easily run into the millions of dollars.

V. <u>CONCLUSION</u>

123. Based on all of the factors described above, as well as my general professional experience, my experience working with the Debtors as my clients, and my experience defending representation and warranty and other RMBS lawsuits, I conclude that the RMBS Trust Settlements represent a fair and reasonable settlement within an appropriate range under the circumstances.

I declare under penalty of perjury, pursuant to 28 U.S.C. § 1746, that the foregoing is true to the best of my knowledge, information, and belief. Executed on September 28, 2012, at Columbus, Ohio.

Jeffrey A. Lipps