UNITED GUARANTY CORPORATION

December 3, 2012

Federal Housing Finance Agency
Office of Strategic Initiatives
400 7th Street, SW
Washington, DC 20024

VIA UPS AND ELECTRONIC MAIL
SecuritizationInfrastructure@fhfa.gov

RE: Comment on Building a New Infrastructure for the Secondary Mortgage Market

Dear Sir or Madam:

United Guaranty Corporation (United Guaranty) is pleased to comment on the Federal Housing Finance Agency's (FHFA) whitepaper "Building a New Infrastructure for the Secondary Mortgage Market."

Since 1963, United Guaranty has provided insurance products and services to mortgage lenders of all sizes. Subsidiaries of United Guaranty provide mortgage guaranty insurance (MI) to protect lenders against mortgage credit losses. At the end of the third quarter of this year, United Guaranty had $148.2 billion of first-lien insurance in force in the U.S. In addition to MI, United Guaranty offers a wide range of risk management and financial services to help lenders protect their investments. United Guaranty is a subsidiary of American International Group, Inc. (AIG).

As a provider of MI, United Guaranty's business focuses on placing private capital at risk under disciplined risk management to promote sustainable home ownership across the country and to facilitate the placement of investment quality mortgages in the secondary market. United Guaranty's goals in the creation and implementation of a new securitization platform are aligned with FHFA's: Encourage the participation of private capital in the mortgage market, and decrease risk to investors and borrowers without reliance on a GSE guaranty.

Specifically to these ends, we would like to focus our comments on FHFA's Question 2: Are there additional functionalities—beyond issuance, disclosure, bond administration and master servicing—that should be considered as core functions of the platform? As set out below, United Guaranty recommends, at a minimum, that the proposed securitization platform include a structural provision requiring MI on any loan with a greater than 70% original loan-to-value (LTV) ratio, with depth of coverage sufficient to protect investors from risk—potentially down

to 40-50% LTV. The analytics currently employed by mortgage insurers will help screen out loans with excessive credit risk, which will result in the origination of higher quality loans. This will be a benefit to borrowers, who will not be placed into loans they cannot repay, to communities, which will not bear the burden of excessive foreclosures, and to investors, who will see greater returns from the reduced number of defaults. For these reasons, and the others described in more detail below, a structural requirement for MI will help provide security for investors outside the GSE guaranty, encourage additional participation of private capital in the mortgage market, and ensure the continued accessibility of mortgages for consumers. Part I of this letter focuses on the specific benefits MI brings to securitization structures, and Part II compares the risks inherent in MI to alternative credit enhancement structures.

I.   MI Provides A Number of Vital Benefits for Investors in Securitizations

Recent history has made clear that front-end quality control and data validation by parties that do not retain credit risk—originating banks, brokers, issuers—will not effectively protect investor interests. The number of lawsuits (i) relating to misrepresentations in securitization prospectuses (including FHFA's own lawsuits against many of the largest members of the banking community) and (ii) demanding the repurchase of mortgage loans from securitizations is proof of this fact. The mortgage system of the future must incorporate robust front-end quality control measures by a party that participates in the risk and thus has interests aligned with investors and borrowers. Mortgage insurers, out of all the participants in the mortgage origination process, are best situated to fill this role. Not only does MI represent "skin in the game" by design, but the underwriting analytics and data verification systems currently available to mortgage insurers bring a variety of benefits to a securitization platform.

During the housing crisis, the MI industry provided substantial financial benefits to investors, and between 2007 and the first half of 2012 mortgage insurers paid over $39 billion in claims payments to investors.[1] However, the benefits of MI go well beyond risk transfer—MI provides robust loan level quality control as well. The front-end analysis that can be performed by mortgage insurers can help to screen out loans with excessive credit risk. The financial crisis has taught us that certain loans—mortgages with, for example low initial payments that later doubled or tripled, or mortgages with unverified income and assets—pose an unacceptable risk to families, neighborhoods, and the United States financial system at large. Mortgage insurers are in the best position to individually evaluate these loans and, by refusing to insure them, prevent them from entering the system in the first instance. The net effect of this quality control feature

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[1] United Guaranty estimated the cumulative paid claims from 2007-2011 based on the gross paid losses reported in competitors' statutory financial statements and for the first half of 2012 based on direct paid losses, as reported for their primary U.S. mortgage guaranty insurance company.

of MI would be that loans with MI would be less likely to default and investors would be better protected.

This is not speculation—*default data demonstrates that high-LTV loans that do not receive the benefit of a mortgage insurer's risk management expertise are more than nine times more likely to default than high-LTV loans with MI.* A study by Milliman, Inc., commissioned by United Guaranty, evaluated the average default rates across origination years 1998 through 2010 for high-LTV loans. The results of this study show that loans with MI have significantly lower default rates than those that do not, all else being equal.[2] For example, the average default rate for high-LTV purchase loans without MI in 2009 is 8.6%; the average default rate for high-LTV purchase loans with MI in 2009 is only 0.9%.[3] Importantly, this effect is significant even during the 2005-2007 timeframe when underwriting standards were generally lax in the mortgage industry. The data validates that MI can help to keep bad loans out of the system—loans that would default at a disproportionate rate and negatively impact borrowers, neighborhoods, and investors. Effective risk management provided by mortgage insurers reduces the frequency of default for mortgages, which will reduce the need for the GSE guaranty and will create strong incentives for investors to purchase future securitizations.

Although traditionally MI has only been written on loans with greater than 80% original LTV, the full benefits of MI would be better realized with a broader range of coverage. United Guaranty's proprietary data shows that the frequency of claim on loans with original LTVs of 70.01-80.00% differs by less than 10% than loans with LTVs 80.01%-85.00%. Therefore the risk characteristics of the 70-80% LTV band are not significantly less risky than the cohort of loans with higher LTVs. MI coverage would therefore bring tremendous benefits on all loans with greater than 70% original LTV. Note that United Guaranty's data for loans below 70% LTV is limited, and the benefits of MI could potentially extend to LTV bands beneath this range.

The actual depth of the MI coverage required will need to be determined through an analysis of severity data relating to covered loans. Loans with high severity characteristics, such as those located in a declining market, will require greater depth of coverage—potentially down to 40% LTV—in order to protect investors.

Investors would see further benefits from an increased role of MI in the securitization platform with increased transparency brought to the underlying collateral. Specifically, mortgage insurers can provide a data validation mechanism during the origination process by helping to verify that

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[2] *See* "Basel III Risk-Weighted Assets Comment Letter: Mortgage Insurance Analysis as of March 2012" dated October 11, 2012 by Milliman, Inc, annexed as Exhibit A, at pp. 21-24.

[3] *Id*. at Appendix Exhibit 3, Page 1.

the loan level data provided by an originator is accurate, and by correcting data errors that are found. For example, a mortgage insurer can validate data included on a loan tape, which could help ensure that the credit risk is accurately represented to an investor reviewing a prospectus including the tape data. Additionally, mortgage insurers can provide a full-file second underwriting of loans to help validate the accuracy of the information directly from the loan files. This additional review on the front-end of the loan origination process not only would help validate the accuracy of the information being disclosed at securitization, but would also reduce repurchase risk, rescissions and denials, as any loan level defects are identified up front. The investor gains a more accurate insight into the portfolio, and the transparency of the investment is increased. Mortgage insurers themselves are transparent counterparties, as they must comply with published regulatory requirements and their financial information is publicly available. All of these factors make due diligence more effective on securitizations including MI, which encourages investment.

Finally, MI will be the most efficient credit enhancement solution because MI prices credit risk on a loan level. Other credit enhancement mechanisms attach at the bond or securitization level, and are thus at least one step removed from the credit risk of the collateral underlying the securitization. The pricing of these mechanisms must then be, by necessity, based on estimations of aggregated portfolio risk. MI, on the other hand, can appropriately adjust the premium on each and every covered loan to match the risk of that loan, which will result in sustainable, market appropriate pricing for credit enhancement.

In sum, a structural requirement for MI on higher LTV loans ensures that the risks of such loans are minimized in the most cost effective manner, and additionally provides transparency and access to loan level data to facilitate investor due diligence. Therefore, we view MI as an effective and necessary foundation for the mortgage securitization platform of the future.

II. MI Provides Minimal Risk Compared to Other Credit Enhancement Strategies

A. Risk Based Evaluation of Capital Adequacy Will Ensure That Mortgage Insurers Are Strong Counterparties in Risk Sharing Arrangements.

A credit enhancement structure is only as good as the counterparty sharing the risk. The mortgage insurance industry has many structural features mandated by state insurance regulators that protect insurance beneficiaries—such as countercyclical reserve requirements and limits on counterparty exposures. However, these regulatory protections did not prove adequate to guaranty the solvency of every mortgage insurer in the face of the historical market downturn,

and three mortgage insurers were unable to withstand the historic losses and were placed into run-off.[4]

While it is not unexpected for insurers that take a first loss position to struggle during an unprecedented historical downturn centered on the very asset class that was insured, United Guaranty recognizes that measures should be taken to minimize the possibility that mortgage insurers will be unable to meet their obligations going forward. AIG and United Guaranty have proposed a series of regulatory measures relating to the implementation of Basel III that, if implemented, will minimize the fallout from crisis scenarios such as the recent housing market downturn.[5] Most importantly, United Guaranty recommends that the evaluation of a mortgage insurer's capital base be shifted from a bright line risk-to-capital ("RTC") test to a risk-based evaluation that tests capital adequacy under severe stress scenarios. Traditionally, state regulators have measured a mortgage insurer's capital adequacy by its RTC ratio, which was typically required to be below 25-1. Although this requirement was sufficient to sustain the MI industry through several periods of market stress, the severe market stress brought on by the housing crises pushed some mortgage insurers into receivership and caused others to require waiver of the requirement. United Guaranty therefore believes that this requirement is too simplistic and needs to be replaced by stress test methodologies already recognized by FHFA in conjunction with an evaluation of the underlying insurance risk.

Specifically, the FHFA should require that each mortgage insurer generate (i) a comprehensive, forward-looking capital plan that accounts for the credit quality of its insured loan portfolio and the adequacy of its reserves, and calculates its minimum capital requirement under defined economic scenarios, and (ii) a risk management self-assessment based on consistent criteria. The self-assessment should verify that the mortgage insurer (i) has established and adheres to formal risk tolerances and that such tolerances encompass all key risks, particularly concentrations that are not inherently unfavorable, such as geography; (ii) performs an independent underwriting assessment, and screens for fraud on a loan-by-loan basis; and (iii) appropriately prices the insurance based on the underlying risk factors. A risk-based pricing approach that properly

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[4] It is important to note that, despite allegations of a general departure from prudent risk management by certain loan originators that occurred prior to the financial crisis, mortgage insurers still paid the majority of claims owed. Even the weakest mortgage insurers that have been placed into run-off continue to pay claims (though at a reduced level with a potential future deferred payment obligation), which directly reduces the loss severity to investors.

[5] *See* October 22, 2012 Letter to the Department of Treasury, FDIC and Board of Governors of the Federal Reserve System, annexed as Exhibit B.

prices the risk profile of the loan as well as catastrophic risk will provide a mortgage insurer with sufficient reserves to address another severe stress scenario.[6]

B.   MI Rescission Risks Will Be Minimal Going Forward.

United Guaranty also recognizes that the possibility of MI rescission can cause uncertainty for investors. It is true that originator fraud, failure to follow prudent underwriting guidelines, and failure to maintain loan file documentation has led to a significant amount of MI rescission over the past several years. However, rescission risk can be significantly mitigated by a number of measures going forward. For example, FHFA's proposed platform includes the monitoring and direction of document custody, which will lead to fewer lost mortgage files. Additionally, rescission risk can be reduced through the use of MI products that incorporate front-end underwriting, such as United Guaranty's newly developed CoverEdge product. Rescission risk should also be mitigated by future regulatory requirements such as the Qualified Mortgage rules and the definition of Category 1 loans under the proposed regulatory capital rules to implement Basel III, which will require a lender to apply underwriting standards that take into account documented and verified income to determine the borrower's ability to repay the loan.

Importantly, rescission risk is much greater for non-MI credit enhancement structures, such as credit default swaps or credit linked notes. Since these structures insure risk on a bond or securitization level, a legal challenge to coverage can unwind an entire transaction, leaving investors entirely exposed. Rescission in the MI context, on the other hand, only affects individual defective loans. Not only does this minimize the fallout from a rescission, but it serves as a mechanism to identify potentially defective loans for removal from the securitization or other redress.

C.   Other Forms of Credit Enhancement Do Not Carry the Same Benefits as MI and Will Not Be Attractive to Market Participants.

Credit enhancement structures that do not include MI on loans with greater than 70% LTV do not share the same quality controlling characteristics of MI, described above, and will be far less attractive to market participants. For example, other forms of credit enhancement, including structured subordination, lack loan level transparency and do not provide validation of collateral level data, which necessarily makes it difficult for non-industry participants to conduct meaningful due diligence on such structures.

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[6] *See* Ex. B at 9-14.

These problems are exacerbated by the credit ratings issues that have been exposed by the financial crisis. Because of the complexity of risk-shares, markets previously deferred to the credit rating agencies and with less emphasis on due diligence. However, after the credit crisis, credit ratings have proven less reliable because (i) rating agencies' risk modeling has been cast into doubt by the poor performance of formerly highly rated RMBS; and (ii) the Dodd-Frank Act now bars reliance on credit ratings by Federal Agencies. Therefore, risk sharing structures need to be simple and suitable for effective due diligence.

In general, the uncertainty about the marketability and accounting treatment of new risk sharing structures as a replacement for a GSE guaranty would make the success of a platform relying on such structures speculative at best. In the past, new risk sharing structures proposed by the GSEs have not been met with success. In 1998 Freddie Mac created a derivative product to reinsure selected loans through an offshore special purpose vehicle that was treated as an off-balance sheet item. The structure was terminated and never repeated by Freddie Mac or Fannie Mae for various reasons relating to accounting treatment and market pricing.[7] MI, on the other hand, is a proven product that has been protecting lenders and the GSEs from the risk of mortgage loan default for decades.

III. Conclusion

MI provides a variety of benefits to investors and borrowers, including improvements in the quality of loan origination through front-end risk management, and increased transparency in securitization structures through data validation. A structural requirement in the proposed securitization platform that MI be placed on loans with greater than 70% original LTV, with depth of coverage sufficient to protect investors from risk, will help build the robust mortgage market of the future where credit risks are minimized and private capital participation is encouraged.

Sincerely,

United Guaranty Corporation

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[7] *See* Report to Board of Directors of Federal Home Loan Mortgage Corporation by Baker Botts, July 22, 2003 pp 97-100.

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EXHIBIT A

MILLIMAN, INC. MORTGAGE INSURANCE ANALYSIS
AS OF MARCH 2012

UNITED GUARANTY CORPORATION

BASEL III RISK-WEIGHTED ASSETS COMMENT LETTER:
MORTGAGE INSURANCE ANALYSIS AS OF MARCH 2012

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MORTGAGE INSURANCE ANALYSIS AS OF MARCH 2012

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MORTGAGE INSURANCE ANALYSIS AS OF MARCH 2012

INTRODUCTION AND SUMMARY OF RESULTS

The Office of the Comptroller of the Currency, Treasury, the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation ("Agencies") published a notice for public rulemaking, Regulatory Capital Rules: Standardized Approach for Risk-weighted Assets; Market Discipline and Disclosure Requirements ("Standardized NPR"), that seeks comment on proposed changes to the Agencies' general risk-based capital requirements for determining risk-weighted assets for banking institutions. This report will concentrate on the proposal for excluding the consideration of private mortgage insurance in calculating the loan-to-value ratio at origination ("LTV") in determining risk-weights for residential mortgage assets.

Risk-weights are used by bank regulators and others in the industry to evaluate the capital adequacy ratio for a bank as proposed by Basel II. The capital adequacy ratio is calculated as the ratio of a bank's core capital divided by risk-weighted assets. A lower risk-weight indicates a lower level of risk and results in lower levels of required capital.

The current methodology under the Basel II framework for residential mortgages assigns a risk-weight between 20 and 150 percent of a mortgage dependent upon the following factors: the presence of government guarantees; the LTV ratio of the mortgage; the lien of the mortgage; and the current status of the mortgage (i.e. current or past due). Under the current methodology, a bank could consider loan-level private mortgage insurance in determining the LTV of the mortgage. For example, if a loan had an LTV ratio of 90% with private mortgage insurance coverage, the LTV ratio of the mortgage for determining risk-weights could be reduced to less than 90% because of the coverage provided by the mortgage insurer. Mortgage insurers provide first-loss coverage up to a pre-determined limit that reduces the realized loss to the investor of the mortgage if the mortgage defaults.

The Standardized NPR proposes risk-weights between 50 and 200 percent of a mortgage dependent upon expanded criteria from the current framework that includes additional underwriting adjustments and requirements at origination of the loan. The Standardized NPR specifically excludes the recognition of primary mortgage insurance when calculating the LTV ratio of a residential mortgage exposure. According to the Standardized NPR, "The agencies believe that, due to the varying degree of financial strength of mortgage providers, it would not be prudent to recognize [private mortgage insurance] for purposes of the general risk-based capital rules[1]."

This report analyzes the credit risk assumed by mortgage insurers under a hypothetical prospective mortgage market as defined by "qualified mortgages" created by the Truth in Lending Act pursuant to section 1412 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. Using recent premium rates and other assumptions, Milliman simulates the required risk-to-capital ratio for a mortgage insurer insuring only "qualified mortgages" to estimate the amount of capital contributions required to support the assumed risk. Milliman's analysis indicates that the credit risk assumed by mortgage insurers will be significantly reduced in a "qualified mortgage" market compared to the historical risk assumed by mortgage insurers. Furthermore, under the assumptions in the model, mortgage insurers would require capital contributions in approximately 1% of the simulated trials under a 75 basis point premium rate scenario and 3% of the simulated trials under a 70 basis point premium rate.

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[1] Note: mortgage insurers are regulated by the Department of Insurance for each state and are not subject to capital requirements as proposed by Basel II.

BACKGROUND AND SCOPE OF ANALYSIS

Private mortgage insurance ("PMI") protects mortgage lenders and investors from potential credit losses stemming from borrower defaults. This credit protection reduces realized credit losses on defaulted mortgages to banks that portfolio the loans and facilitates the sale and transfer of mortgages in the secondary market. The second underwrite provided by the mortgage insurers enhances the quality of the mortgages insured by private mortgage insurers and results in a lower default frequency on insured loans compared to similar loans not insured by private mortgage insurers[2].

Mortgage guaranty insurers manage mortgage default risk by diverting accumulated premium revenues and capital built up during relatively strong mortgage markets to cover claim losses in relatively weak mortgage markets. Default risk diversification is obtained geographically, temporally, and across levels of borrower credit risk. At the geographic level, insurers achieve diversification by writing business nationally, thereby enabling them to withstand severe regional economic downturns. On the temporal level, insurers are subject to stringent minimum surplus and reserve requirements - including contingency reserve requirements - imposed by state insurance regulators. Mortgage insurers are generally required to hold a risk-to-capital ratio of at least 25 to 1 (for every $25 dollars of risk in force, the mortgage insurer must hold at least $1 of capital) to cover unexpected losses. Contingency reserve requirements generally cause insurers to retain premiums earned during periods of economic expansion in order to cover claim losses incurred during periods of protracted economic recession. Geographic and temporal diversification provide a natural hedge against systematic risk inherent in mortgage guaranty insurance; that is, a mortgage guaranty insurance company with prudent pricing and capitalization can reasonably anticipate that sufficient diversification both geographically and temporally will be adequate in protecting the company against mild to severe economic downturns.

During the expansion years of the real estate and mortgage market from 2000 through 2007, the mortgage industry developed and originated alternative mortgage products such as no documentation loans, negative amortization loans, "teaser rate" loans, and others that fueled an expansion in mortgage credit. These products facilitated growth in the housing market and house prices. In 2006 and 2007, mortgages started to default and housing prices began a steep decline that contributed to large losses in the mortgage industry. As a result of these losses, some mortgage insurers became insolvent, breached the 25 to 1 capital requirement, or experienced a significant drain on capital. The mortgage insurance industry responded to these losses by increasing their underwriting and risk management processes. Examples of these enhancements include increased documentation requirements, implementation of higher FICO score and lower LTV limits, refined risk-based premiums, and other actions to mitigate their risk.

The United States government and its regulators have also responded to the recent mortgage crisis by issuing a series of proposals to govern the mortgage market and help prevent a similar crisis from recurring in the housing market. Proposed governing rules for mortgage lending, such as "qualified mortgages" created by the Truth in Lending Act pursuant to section 1412 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, will influence or prohibit the types and features of mortgages that will be originated. Mortgages that meet these proposed requirements have historically been associated with lower levels of default risk compared to mortgages that do not meet the proposed requirements.

The proposed requirements that will govern future mortgage lending along with risk management actions taken by the mortgage insurance industry may decrease the amount of credit risk assumed by the mortgage insurance industry. Using historical data of mortgage performance, this report will analyze the primary drivers of risk for a mortgage insurer after the implementation of these proposed requirements for mortgage lending.

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[2] The appendix to this report provides a comparison of the cumulative default rate for loans insured by mortgage insurers compared to similar loans not insured by mortgage insurers for recent origination years

At the time this report was written, the definition of a "qualified mortgage" as defined by the Truth in Lending Act or other mortgage reform proposals have not been finalized; however, the Agencies have issued NPR's summarizing the current considerations for a "qualified mortgage" and other reforms. Milliman reviewed these NPR's and current underwriting guidelines within the mortgage insurance industry to develop a definition of "Qualified Mortgages" for this report.

Milliman has been retained by United Guaranty Corporation ("UGC") to independently compare the credit risk profile of Qualified Mortgages to the credit risk profile of an unfiltered dataset of mortgages ("All Loans"). In addition to this comparison, Milliman was retained to simulate a probability distribution of the amount of capital required above cumulative earned premium to cover future obligations for a mortgage insurer that insures only Qualified Mortgages. Milliman defined contributed capital as the amount of capital contributed in excess of premium to meet future obligations with consideration for the timing of cash flows.

Milliman ran the simulation model under a single-book assumption and a multiple-book assumption. A single-book model projects the performance of a portfolio of mortgages originated in a single calendar (i.e. a single book of business) year over a period of 15 projection years. The single book simulation was designed to estimate the amount of capital needed to cover losses without consideration of other sources and uses of funds such as investment income, expenses or taxes.

The single-book analysis does not take into consideration the operating aspects of a mortgage insurance company such as the starting capital position of the company, investment income, expenses, taxes, or diversification. A mortgage insurance company obtains a diversification benefit through writing business across many book years. Therefore, Milliman also created a multiple-book simulation model that takes these aspects into consideration. The multiple-book model projects the performance of 15 consecutive books of business over a period of 15 projection years. The multiple-book model tracks the simulated sources and uses of funds for a mortgage insurance company that insures only Qualified Mortgages.

The results contained in this report are developed from publicly available data sources and do not specifically represent the risk or performance of loans insured by UGC.

EXECUTIVE SUMMARY

Milliman relied on data from CoreLogic's LoanPerformance Servicing Database to develop this analysis. The data includes loan-level performance data and underwriting characteristics for loans originated between 1998 and 2012 with performance through March 31, 2012. Milliman used this data to project ultimate default rate distributions and cash flow timing assumptions for All Loans and Qualified Mortgages. Milliman appended mortgage insurer premium rates and average coverage levels to each loan based on the underwriting characteristics of the loans. The aggregate data was filtered for loans with the following characteristics:

All Loans

- Loans with a complete performance history;
- Loans with an original combined loan-to-value ratio at origination greater than 80%;
- Loans not insured by the Federal Housing Administration;
- Loans with a valid value for FICO score and combined loan-to-value ratio at origination;
- First lien loans;
- Non-construction loans; and
- Loans with a valid origination date.

Milliman defined Qualified Mortgages as a subset of All Loans that have the following characteristics:

Qualified Mortgage

- Loans with a combined loan-to-value ratio at origination less than or equal to 97%;
- Loans with a FICO score greater than or equal to 620;
- Full documentation loans;
- Fully amortizing loans (i.e. no interest only loans or negative amortization loans);
- Original term of 360 months or less;
- Periodic rate reset cap of 2% or less; and
- Lifetime rate reset cap of 6% or less.

Milliman estimated the ultimate default rate for All Loans and Qualified Mortgages by origination quarter for origination quarters from 1998 Q1 through 2011 Q4. Milliman fit a gamma distribution to the ultimate default rates for each set of loan cohorts to estimate a probability distribution of the potential ultimate default rate outcomes. The table below provides a summary of the empirical data and gamma fits by cohort:

TABLE 1 ULTIMATE DEFAULT RATE DISTRIBUTION BY COHORT				
Confidence Level	All Loans		Qualified Mortgages	
	Empirical Data (%)	Gamma Fit (%)	Empirical Data (%)	Gamma Fit (%)
10%	5.0	3.5	3.1	1.9
20%	5.9	5.9	3.6	2.9
30%	7.7	8.2	3.8	3.9
40%	11.2	10.7	4.4	5.0
50%	14.4	13.4	5.1	6.1
60%	15.5	16.5	6.3	7.3
70%	17.3	20.4	8.3	8.9
80%	28.6	25.6	12.5	11.0
90%	40.2	34.2	16.5	14.3
95%	41.0	42.5	18.0	17.5
99%	44.8	61.2	18.4	24.6
Mean Ultimate Default Rate	**16.7**	**16.7**	**7.4**	**7.3**
Standard Deviation	**12.2**	**13.2**	**5.0**	**5.3**
2007 Ultimate Default Rate	38.2	NA	18.1	
2007 Percentile	88.7	92.8	96.2	95.6

The mean ultimate default rate for Qualified Mortgages is less than half of the mean ultimate default rate for All Loans in the database. The mean ultimate default rate for All Loans is 16.7% compared to 7.3% for Qualified Mortgages. The ultimate default rate under severe economic conditions as measured by the 99th percentile ultimate default rate for Qualified Mortgages is significantly less than the comparable ultimate default rate for All Loans. Using the gamma fit to estimate the tail risk, the 99th percentile ultimate default rate for All Loans and Qualified Mortgages is 61.2% and 24.6%, respectively. This means the 1 out of 100 tail event based on the gamma distribution fit to historical data would have resulted in over 60 out of 100 loans defaulting; however, under the new proposed Qualified Mortgage requirements, the 1 out of 100 tail event would have resulted in 25 out of 100 mortgages defaulting.

Single-Book Simulation

Using a cash flow simulation model developed specifically for mortgage insurance companies, Milliman estimated the capital contributions required to support the simulated losses associated with a single-book of $10 billion of original loan volume ($2.5 billion of original risk under 25% mortgage insurance coverage) of only Qualified Mortgages. The single book simulation was designed to estimate the amount of capital needed to cover losses alone, without consideration of other sources and uses of funds such as investment income, expenses or taxes. Milliman ran the single-book model assuming average premium rates of 75 basis points and 70 basis points. Milliman estimated historical premium rates for each loan analyzed in this study using industry rate cards; the average premium rate for Qualified Mortgages originated in 2011 ranged between 70 and 75 basis points.

Milliman analyzed the risk-to-capital ratio from the simulations. The risk-to-capital ratio is equal to the original risk of a given book divided by the simulated contributed capital. Original risk is equal to the amount of new insurance written times the coverage percent of the insured cohort. This ratio conveys approximately how much capital is required to meet future obligations at a given level of confidence. For example, if the risk to capital ratio is 25 to 1 at the 95% confidence level, then in order to have met cash requirements in 95% of the simulated trials, the insurer needs to add capital equal to 4% (1 / 25) of the original risk.

The results of the simulations are summarized in the following table:

	TABLE 2 RISK TO CAPITAL RATIO COMPARISON NO REQUIRED CAPITAL OVER CONTINGENCY RESERVE, NO EXPENSES, NO INVESTMENT INCOME, NO TAXES SINGLE-BOOK ANALYSIS ON $10 BILLION OF ORIGINAL NIW OF QUALIFIED MORTGAGES ($ THOUSANDS)				
Confidence Level	**Average Coverage Percent: 25% Original Risk: $2.5 Billion Initial Amount of Capital: $0**			
	Premium Rate 0.75%		**Premium Rate 0.70%**	
	Contributed Capital	**Risk to Capital Ratio**	**Contributed Capital**	**Risk to Capital Ratio**
80%	0	NA	0	NA
90%	0	NA	5,067	493.4
95%	47,263	52.9	71,236	35.1
97.5%	114,669	21.8	138,738	18.0
99.0%	200,877	12.4	223,519	11.2
99.5%	267,074	9.4	292,444	8.5
99.9%	435,668	5.7	464,215	5.4
Percent of Trials with Zero Capital Contribution		**92.0%**		**89.0%**

The last row of the table shows the percent of trials that resulted in a zero capital contribution; in other words, the percent of trials where the cumulative earned premium was adequate to cover cumulative paid losses at any given time. In the single-book analysis, nearly 90% of the trials resulted in zero contributed capital under both sets of premium rates. Therefore, under current premium rates for Qualified Mortgages, 9 out of 10 books of business would not require capital contributions from the mortgage insurer. If capital contributions are required, the simulation analysis indicates a risk-to-capital ratio of 35 to 1 would cover unexpected losses at a 95% confidence level using the lower premium rate of 70 basis points.

Multiple-Book Simulation

Milliman estimated the capital contributions required to support the potential losses associated with 15 books of Qualified Mortgages for a newly capitalized mortgage insurer after a 15 year period. Each book was assumed to have $10 billion of original loan volume ($2.5 billion of original risk under 25% mortgage insurance coverage). This assumption is based on a recent review of industry market share and volume trends. The multiple-book model is designed to simulate the number of times a mortgage insurer would require capital contributions if only Qualified Mortgages were insured and how much capital would be contributed in each case. The multi-book simulation includes various assumptions outlined in the body of this report that were selected to represent the starting financial position and ongoing expenses for a newly capitalized mortgage insurer. Milliman assumed an initial capital level of $500 million based on capital requirements for newly organized mortgage insurance companies. Capital is not contributed in the model until the $500 million on initial capital is depleted.

Milliman assumed an 85% correlation between successive book years for ultimate default rates and prepayment speeds. The results of the simulations are summarized in the following table:

TABLE 3 RISK TO CAPITAL RATIO COMPARISON NO REQUIRED CAPITAL OVER CONTINGENCY RESERVE, 20% EXPENSE RATIO, 3% INVESTMENT INCOME, 35% TAX RATE MUTIPLE-BOOK ANALYSIS ON $10 BILLION OF ORIGINAL NIW OF QUALIFIED MORTGAGES PER YEAR ($ THOUSANDS)						
Confidence Level	**Average Coverage Percent: 25% Original Risk: $37.5 Billion Initial Amount of Capital: $500 Million**					
	Premium Rate 0.75%			**Premium Rate 0.70%**		
	Contributed Capital*	**Risk to Contributed Capital Ratio**	**Risk to Capital Ratio****	**Contributed Capital***	**Risk to Contributed Capital Ratio**	**Risk to Capital Ratio****
80%	0	NA	NA	0	NA	NA
90%	0	NA	NA	0	NA	NA
95%	0	NA	NA	0	NA	NA
97.5%	0	NA	NA	211,877	177.0	52.7
99.0%	555,779	67.5	35.5	777,770	48.2	29.3
99.5%	1,029,656	36.4	24.5	1,272,977	29.5	21.2
99.9%	1,931,488	19.4	15.4	2,165,954	17.3	14.1
Percent of Trials with Zero Capital Contributions		**98.0%**	**98.0%**		**97.0%**	**98.0%**

* Contributed capital in excess of the $500 million of initial capital
** Calculated as Original Risk divided by contributed capital plus $500 million

In the multiple-book analysis, at least 97% of the trials resulted in zero contributed capital under both sets of premium rates. Fewer trials resulted in capital contributions under the multiple book analysis because the mortgage insurance company starts out with $500 million in initial capital, and the mortgage insurer receives temporal diversification across 15 books of business. If capital contributions are required, the simulation analysis indicates a risk-to-capital ratio of 52.7 to 1 would be adequate to cover unexpected losses at a 97.5% confidence level and a risk-to-capital ratio of approximately 30 to 1 would be adequate to cover unexpected losses at a 99.0% confidence level using the lower premium rate of 70 basis points. The risk-to-capital ratio mentioned in the text includes the $500 million in initial capital. The 95% confidence level did not require capital contributions.

APPROACH TO ANALYSIS

Source of Data

Milliman subscribes to the CoreLogic LoanPerformance Loan Level Servicing Data (CoreLogic Data). The CoreLogic Data contains loan-level underwriting and performance history for prime mortgage loans beginning with performance data in 1998. Note the servicing database is a distinct database from the CoreLogic LoanPerformance Loan Level Securities Database. The securities database includes loans typically classified as "sub-prime" and "alt-a" mortgages that were sold to the public via private-label mortgage-backed securities; the securities database was not used for this analysis. The servicing database includes a majority of prime loans and represents about 80% of the active prime mortgage market, according to CoreLogic.

The data from the servicing database contains underwriting characteristics and loan performance data such as loan status and loan balance from calendar years 1998 through 2012 (the last month of observation for this study is March 2012). Milliman processed the monthly payment records of the CoreLogic Data to obtain the following for each loan:

- the first month the loan appeared in the monthly data;
- the last month the loan appeared in the monthly data;
- the month it became a 90 day delinquency, if any;
- the month it became a Foreclosure, if any;
- the month it became a REO, if any;
- the month its status changed from active to closed; and
- any months its delinquency status changed from a 30, 60, 90, FCL or REO to a status of Current (i.e., all months it cured), if any.

This information was then merged with the origination characteristics (static attributes) dataset and the data were then scrubbed for the following data defects:

- Any loans for which the difference between the origination month and first month the loan appeared in the monthly file was greater than 3 months were removed. This gave us loans for which we know the history from start to finish, or the current state, as we did not wish to speculate on the occurrence of default events that may have occurred between origination and the month at which the Monthly Performance data was first recorded.

The resulting dataset contained fields flagging the event of a 90 day delinquency status and the month it first occurred and similar fields for foreclosure, REO, cure post default and subsequent re-default as well as when the loan terminated.

The purpose of this study is to compare the credit risk profile of Qualified Mortgages to All Loans and to estimate the amount of capital required for mortgage insurers that insure only Qualified Mortgages. Milliman defined the All Loans population and Qualified Mortgage population as follows:

All Loans

- Loans with an original combined loan-to-value ratio at origination greater than 80%;
- Loans not insured by the Federal Housing Administration;
- Loans with a valid value for FICO score and combined loan-to-value ratio at origination;
- First lien loans;
- Non-construction loans; and
- Loans with a valid origination date.

Milliman defined Qualified Mortgages as a subset of All Loans that have the following characteristics:

Qualified Mortgage

- Loans with a combined loan-to-value ratio at origination less than or equal to 97%;
- Loans with a FICO score greater than or equal to 620;
- Full documentation loans;
- Fully amortizing loans (i.e. no interest only loans or negative amortization loans);
- Original term of 360 months or less;
- Periodic rate reset cap of 2% or less; and
- Lifetime rate reset cap of 6% or less.

The table below provides the loan and default counts as of March 31, 2012 for each cohort used in this study. The CoreLogic Data does not provide a claim indicator within the dataset, so Milliman developed a definition of default. Default was defined as any terminated loan that reached a 90-day delinquency status or worse and subsequently did not cure from the delinquency. If a loan did cure, Milliman determined whether the loan missed any payment after the cure; if the loan missed payments after the cure the loan was categorized as a default[3].

TABLE 4 LOAN COUNT SUMMARY BY COHORT			
Cohort	Number of Loans	Number of Defaults	Default Rate as of March 2012
All Loans	7,042,718	566,480	8.04%
Qualified Mortgages	2,699,258	87,209	3.23%

The data includes 7.0 million loans for the All Loans population and 2.7 million loans for the Qualified Mortgage population. Across all years, Qualified Mortgages represent 38% of the loan population by count. The default rate-to-date on the All Loans population across all years is 8.04%, and the default rate-to-date on the Qualified Mortgage population across all years is 3.23%. The default rate-to-date on Qualified Mortgages is 40% of the default rate-today for All Loans (0.40 = 3.23 / 8.04).

Exhibit 1 provides summaries of the loan count and amount by origination quarter for All Loans and Qualified Mortgages. Exhibit 1 also provides the percent of loans that are Qualified Mortgages for each origination quarter. In origination quarters 2006 Q1 and 2006 Q2 the percent of loans that are Qualified Mortgages fell to a low of 17% by loan amount; after 2008 the percent of loans that were Qualified Mortgages averaged approximately 50% by loan amount.

Milliman appended home price appreciation data to the loan-level database using the Federal Housing Finance Agency (FHFA) home price indices at the core-based statistical area (CBSA) with actual home price indices as of December 31, 2011. Milliman relied on Moody's Economy.com home price index forecasts for home price index values after December 31, 2011.

Ultimate Default Rate Projections

The CoreLogic Data contains performance information through March 31, 2012; therefore, Milliman projected ultimate default rates by origination quarter for the All Loans cohort and Qualified Mortgage cohort using actuarial methods. The section below provides a description of the methodologies used to estimate the ultimate default rates.

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[3] This definition of default may result in a higher default rate compared to a mortgage insurance claim indicator, particularly in years with positive home price appreciation.

A Priori (Econometric) Default Rates

Milliman developed a priori default rates[4] for each loan in the All Loans dataset as of March 31, 2012. These default rates were derived through an examination of the characteristics of each individual loan in the loan-level data. Milliman's a priori default rate model is a composite default rate calculation that combines three significant attributes of mortgage credit risk to estimate the frequency of borrower defaults. The three attributes are:

1. Credit worthiness of the borrower;
2. Underwriting characteristics of the loan; and
3. Macroeconomic influences.

Milliman developed baseline a priori default rates to estimate the default rate of a mortgage loan based upon the credit worthiness of the borrower. The credit worthiness of borrowers is estimated using a combination of two borrower attributes: FICO score and loan-to-value ratio (LTV). Below is a summary of Milliman's view regarding these two borrower characteristics.

- *FICO Score*: Borrowers with low FICO scores are deemed to present a larger credit risk; therefore, borrowers with low FICO scores are assigned a higher default rate; and

- *LTV*: Mortgages supported by lower collateral investment by the borrower could indicate a lower level of assets and/or relative earnings power compared to borrowers with high collateral investment; in addition, borrowers with a high LTV loans are subject to greater risk of a future negative equity position resulting from declines in home price appreciation or the costs associated with the disposition of a delinquent property. Therefore, higher LTV loans are assigned a higher default rate.

Milliman adjusts its baseline a priori default rates to account for the presence of various underwriting characteristics of the loan. Milliman selected risk factor adjustments to the baseline a priori default rates based on a review of historical performance of loans with particular risk factors relative to the performance of loans without the risk factor. The underwriting adjustments are applied using a logistic model.

The equation for the probability of a given response outcome in a logistic model is:

$P_i = e^{\Sigma \beta_i X_i} / (1 + e^{\Sigma \beta_i X_i})$, where the X_i are the independent covariates with β_i as their associated coefficients.

For purposes of generating the adjustments to the a priori default rates, the underwriting loan characteristics considered were: amortization, interest-only option or negative amortization features, loan purpose, property type, occupancy type, documentation type, loan size, and loan term. Below is a summary of Milliman's view regarding these loan characteristics based on Milliman's review of historical mortgage loan performance:

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[4] Prior to any experience consideration. A default rate for a given cohort of loans is defined as the sum of original loan balance on defaults for that particular cohort divided by the sum of total original loan balance.

- *Amortization*: Hybrid mortgages and ARMs are subject to interest rate risk and to potential payment fluctuations with the market. Borrowers with a fixed-rate mortgage are locked into an interest rate for the life of the loan and qualify for their mortgage at known debt-to-income ratios. Hybrid and ARM borrowers may face higher mortgage debt obligations at the rate reset period if the mortgage payment increases without a corresponding proportional increase in borrower income, thereby resulting in an increased probability of default. Accordingly, Milliman has assigned a larger risk factor for ARMs;

- *Interest Only/Option ARM/Neg-Am:* Borrowers with loans that have payment options such as only paying interest (as opposed to paying principal and interest) present a larger credit risk; thus, Milliman assigned a larger risk factor to these types of loans;

- *Loan Purpose*: Cash-out refinance loans can be indicative of financial stress on the borrower; loans of this type are assigned a larger risk factor than purchase or term-refinance loans. Industry data also indicates rate/term refinance loans are associated with higher default rates compared to purchase loans; therefore, Milliman assigns a higher risk factor to rate/term refinance loans compared to purchase loans;

- *Property Type:* Loans for 2-4 family homes and manufactured housing have exhibited a greater propensity for default based on industry data and are assigned larger risk factors;

- *Occupancy Type:* There is an increased likelihood of default with investor-owned loans because, under adverse economic conditions, an individual's loyalty to his/her investment property is significantly lower than their loyalty to their primary residence. The same relationship holds true for second homes, although not to such a severe degree. Therefore, Milliman has assigned larger risk factors to these types of loans;

- *Documentation Type:* Loans made with reduced documentation are more likely to default than those with full documentation provided at closing. Additionally, loans with no documentation (i.e., no income or asset verification) have a significantly greater chance of defaulting when compared to a full documentation loan. Milliman has assigned a larger risk factor to loans in these categories compared to full documentation loans;

- *Loan Size:* Larger loans have exhibited a greater propensity for default based on industry data. This propensity is thought to be due to the more volatile nature of home prices as they get larger and further away from the mainstream market. Therefore, loans above the conforming loan limit are assigned a larger risk factor; and

- *Loan term:* Loans with a term less than 30 years are associated with lower historical default rates compared to loans with a term of 30 years; therefore, Milliman assigned a smaller risk factor to these loans. Loans with a term greater than 30 years could be an indication of an affordability product for borrowers; these loans are associated with higher historical default rates compared to loans with a term of 30 years. Milliman assigns a greater risk factor to loans with a term greater than 30 years.

In addition to the underwriting qualities of a mortgage loan, certain economic variables can have a significant impact on mortgage credit risk. Consequently, Milliman has developed an economic- driven default adjustment model, which incorporates specific Home Price Index (HPI) scenarios. The model is calibrated to adjust default rates for a given loan based on location of the collateralizing property and historical and future HPI assumption inputs. For purposes of incorporating HPI, the location of the property is identified at the Core Based Statistical Area (herein referred to as "CBSA", but also commonly referenced as "metropolitan statistical area or "MSA") level. In the event that the loan level data does not indicate that the property is in a CBSA, the property state is used.

To calculate future HPI, Milliman used a settlement pattern that varies by age over twenty future quarters, as generated from industry data. A future weighted-average estimate of home price appreciation/depreciation is then calculated by applying a Milliman selected settlement pattern, based on an analysis of loss emergence in quarters and the corresponding future forecasted HPI for each defined scenario. Milliman then calculated the change in home price from loan origination to this weighted-average home price. The motivation behind using a distribution of resolution dates (as opposed to using a single fixed quarter in the future) was to reflect a probability associated with reaching resolution at different points in time in the future.

After calculating each of the three components described above, Milliman calculated a combined a priori default rate for each loan in the All Loans dataset. These a priori default rates serve as an input for the Bornhuetter-Ferguson projection methods discussed below.

Ultimate Default Rate Selection

After analyzing the loan-level characteristics and selecting a priori default rates, Milliman relied on judgment and a variety of standard actuarial methodologies to select ultimate default rates by book quarter. Three standard actuarial methodologies were considered in calculating ultimate default rate indications.

The first methodology to be illustrated is the loss development factor ("LDF") method. As a group of loans age, their collective cumulative defaults change. Their collective cumulative default rate similarly changes. This change in value over time is referred to as loss (or default) development. The LDF method is a traditional actuarial approach that relies on historical changes in losses (or defaults) from one evaluation point to another to project the current default rate to an ultimate default rate. Development patterns that have been exhibited by more mature (older) years, along with historical experience, are used to estimate the projected development of the less mature (more recent) years. This method is used with actual cumulative default rates through the first quarter of 2012. Milliman used the historical cohort performance data to develop the unique loss development patterns for All Loans and Qualified Mortgages separately; the loss development pattern for each cohort of loans is similar. As an example of the methodology, the selected loss development factors for the All Loans cohort are shown on Exhibit 2, Page 1. The ultimate default rate derivation for this cohort using the LDF method is shown on Exhibit 2, Pages 2-3. For origination quarter 2007 Q4, the ultimate default rate (49.03%) is equal to the cumulative default rate-to-date (14.25%) multiplied by the cumulative LDF factor (3.441).

In addition to the paid LDF method, Milliman also used the unadjusted and adjusted Bornhuetter-Ferguson ("B-F") method to project ultimate default rates. These methods are commonly used to provide a more stable estimate of ultimate default rates in situations where loss development is volatile, substantial and/or immature. The B-F method calculates an indicated future default rate. The indicated future default rate is calculated directly as the product of the selected a priori ultimate default rate (estimated based on loan characteristics of the loans and the economic risk adjustments discussed above) and a future default percent factor. The future default percent factor is derived from the LDF selection described in the LDF method. The estimated future default rate is added to the cumulative default rate to date to derive an estimated ultimate default rate. Exhibit 2, Pages 4-5 detail the unadjusted B-F ultimate default rate methodology for the All Loans cohort. Using the 2007 Q4 origination quarter as an example, the indicated unadjusted B-F ultimate default rate (34.82%) is equal to the cumulative default rate-to-date (14.25%) plus the indicated unadjusted future default rate (20.57%), where the indicated unadjusted future default rate (20.57%) is calculated as the product of the a priori ultimate default rate (29.00%) and the future default percent, as determined by one minus the inverse of the cumulative LDF factor (1-1/3.441).

The adjusted B-F method is identical to the unadjusted B-F method with the exception of an adjustment to the a priori ultimate default rate. The a priori ultimate default rate used in the adjusted B-F method is derived from the selected a priori ultimate default rate, adjusted by an actual-to-expected persistency factor. This persistency adjustment is incorporated to allow for a projection of losses that reflects the variability associated with loan termination rates. The actual persistency is equal to the current loan amount for loans in force for a given origination quarter divided by the original loan amount for loans originated in an origination book quarter. The average historical persistency, also known as the a priori cumulative persistency, is estimated by Milliman using prepayment patterns developed from the Public Securities Association (PSA). The PSA level was selected by examining historical runoff triangles and selecting a long-term average persistency rate for each cohort. The PSA selection for the All Loans cohort is shown on Exhibit 2, Page 6. After applying the adjustment factor to the a priori ultimate default rate, the unadjusted and adjusted B-F methods are identical. The adjusted B-F methodology is demonstrated on Exhibit 2, Pages 7-8 for the All Loans cohort. For origination quarter 2007 Q4, the indicated adjusted B-F ultimate default rate (31.88%) is equal to the cumulative default rate-to-date (14.25%) plus the indicated adjusted future default rate (17.63%), where the indicated adjusted future default rate is calculated as the product of the adjusted a priori ultimate default rate (24.85%) and the future default percent, as determined by one minus the inverse of the cumulative LDF factor (1-1/3.441). The adjusted a priori ultimate default rate (24.85%) is calculated as the unadjusted a priori ultimate default rate (29.00%) times the actual percent in force (48.59%) divided by the expected percent in-force (56.69%).

After considering each of the ultimate default rate indications for each cohort, Milliman made ultimate default rate selections by origination quarter for All Loans; the selected ultimate default rates are summarized on Exhibit 2 Pages 9-10.

Exhibit 3 provides documentation for the development of the selected ultimate default rates for the Qualified Mortgage cohort.

Default Probability Distribution Comparison

Milliman fit probability distributions to the estimated ultimate default rates. Milliman selected a gamma distribution for both All Loans and Qualified Mortgages. Exhibit 4 Page 1 provides summaries of the distribution for each cohort. The exhibit compares the empirical ultimate default rate distribution against the fitted ultimate default rate distribution for each cohort. The exhibit also shows the calculated percentile of the 2007 ultimate default rate for each cohort. For the time period reviewed, mortgages originated in 2007 typically represent the origination year with the highest level of ultimate default rates.

For All Loans the average ultimate default rate for loans originated in 2007 was 38.2%; this represents the 92.8% percentile under the gamma fit. For Qualified Mortgages the average ultimate default rate for loans originated in 2007 was 18.1%; this represents the 95.6% percentile under the gamma fit. The mean of the All Loans distribution and Qualified Mortgage distributions are 16.7% and 7.3%, respectively. The mean ultimate default rate for Qualified Mortgages is less than half the mean ultimate default rate for All Loans. Exhibit 4 Pages 2 through 5 show the charts of the incremental and cumulative distribution fit for each cohort.

Premium Rate Comparison

Milliman estimated a mortgage insurance premium rate for each loan in the data. The mortgage insurance premium rates were estimated using publicly available premium rate cards from the mortgage insurance industry from 2007 through 2011. Loans originated prior to 2007 were assigned a premium rate from the 2007 rate cards. Milliman determined the appropriate premium rate for each loan by matching the loan's origination year to the mortgage insurance industry premium rates in effect for that year. For example, if a loan was originated in 2008, the loan would be assigned a premium rate from rate cards published in 2008. If a loan was originated in 2011, the loan would be assigned a premium rate from rate cards published in 2011. The mortgage insurance industry updated premium rates frequently

during this time period to reflect the current risks insured by the mortgage insurance industry. Exhibit 5 Page 1 provides a time series trend of the weighted average premium rate from 1998 through 2011. The exhibit segments the premium rate into the premium rate for Qualified Mortgages (red line), Non-Qualified Mortgages (blue line), and All Loans (black line). Historically, mortgage insurers charged a lower premium rate for Qualified Mortgages compared to Non-Qualified Mortgages. Recent origination quarters show the largest differentiation between premium rates for these two cohorts of loans. For all loans, premium rates have generally increased over the 2007 to 2011 time period.

Exhibit 5 Page 2 provides a chart of the average mortgage insurance coverage percent for Qualified Mortgages (red line), Non-Qualified Mortgages (blue line), and All Loans (black line). Qualified Mortgages originated in 2011 had an average coverage percent of approximately 25%.

Simulation Methodology

Milliman developed a Monte Carlo simulation model to estimate the capital required to support the potential losses associated with Qualified Mortgages. The cash flow model uses the assumptions discussed below to estimate the financial position of a mortgage insurance company across development years under different ultimate default rate and prepayment speed scenarios. The model takes into consideration specific characteristics of a mortgage insurance company such as contingency reserve requirements, payment timing patterns, and others. The model simulates 10,000 trials of the annual financial position of a mortgage insurance company for operating years 1 through 30.

Milliman assumed an average coverage percent of 25%, and Milliman ran the simulation model assuming annual premium rates of 70 and 75 basis points. As shown on Exhibit 5 Page 1, the average premium rate for Qualified Mortgages originated in 2011 ranged between 70 and 75 basis points. Milliman assumed a payout of simulated losses using the loss development factors derived in the *Ultimate Default Rate Projections* section of this report. Ultimate default rates were simulated in the model using the gamma distribution for Qualified Mortgages discussed in the *Default Probability Distribution Comparison* section of this report.

In the model, premiums are received until coverage is terminated, and premiums are assumed to be earned through the life of the policies. Written premiums by book year decrease for each successive calendar year until all loans are terminated or defaulted for a given book. The simulation model uses PSAs to quantify the tendency of a group of loans to remain in a book of business and persist to pay premium from year to year. Milliman gave consideration to current industry prepayment trends in the data when selecting PSA speeds. Milliman made a PSA selection of 375% PSA based on historical mortgage insurance prepayment speeds and the inherent correlation of prepayment speeds with the selected mean default rate. A 375% PSA expresses a monthly series of annual conditional prepayments rates, beginning at 0.70% per year in the first month and increasing by 0.70% per year in each successive month until month 30, when the series levels out at 20.89% per year until maturity. For the simulation, future prepayment speeds follow a log-normal distribution with means equal to the mean selected PSA for each cohort and a coefficient of variation equal to 40%. Note these PSAs were used solely for projecting future premium levels. Prepayment speeds were assumed to be 70% negatively correlated with the simulated ultimate default rate. Therefore, high simulated default rates typically correspond to low prepayment speeds and vice versa.

Milliman defined contributed capital as the amount of capital contributed in excess of cumulative premium to meet future obligations with consideration for the timing of cash flows. Milliman did not 'reimburse' the mortgage insurer for contributed capital with future profits if future premium exceeded future paid obligations.

Milliman extracted the simulated ultimate default rate, the loss ratio, amount of contributed capital, and calculated the risk-to-capital ratio for each trial. The risk-to-capital ratio is equal to the original risk of a given book divided by the simulated contributed capital. Original risk is equal to the amount of new insurance written times the coverage percent of the insured cohort. This ratio conveys approximately

how much capital is required to meet future obligations at a given level of confidence. For example, if the risk to capital ratio is 25 to 1 at the 95% confidence level, then in order to have met cash requirements in 95% of the simulated trials, the insurer needs to add capital equal to 4% (1 / 25) of the original risk.

Single-book Simulation

Milliman estimated the capital contributions required to support the potential losses associated with a single-book of Qualified Mortgages on $10 billion of original loan volume ($2.5 billion of original risk under 25% mortgage insurance coverage). Capital contributions were calculated in each development year and aggregated for development years 1 through 15 to determine the cumulative amount of contributed capital for each trial. Milliman assumed each book of business was completely run-off after a 15 year period. Milliman defined contributed capital as the amount of capital contributed in excess of cumulative premium to meet future obligations with consideration for the timing of cash flows. Future obligations included paid losses and contingency reserve accumulation. The single book analysis was designed to measure how frequently capital was required in addition to premium to support paid losses for an individual book of business without consideration of the operating aspects of a mortgage insurance company. Consequently, Milliman did not allow for dividends in the model and assumed investment income perfectly offset operating expenses and taxes.

Multiple-Book Simulation

The single-book analysis does not take into consideration the operating aspects of a mortgage insurance company such as the starting capital position of the company, investment income, expenses, taxes, or diversification. A mortgage insurance company obtains a diversification benefit through writing business across many book years. These aspects are important because mortgage insurers accumulate capital from low ultimate default rate books that may be used to offset capital drain during high ultimate default rate books. Furthermore, investment income, expense, and tax assumptions capture cash flows that impact the capital base. Milliman created a multiple-book simulation model that takes these aspects into consideration.

Milliman estimated the capital contributions required to support the potential losses associated with 15 books of Qualified Mortgages for a newly capitalized mortgage insurer 15 years after the first book of business. Milliman assumed each book of business was completely run-off after a 15 year period. Each book was assumed to have $10 billion of original loan volume ($2.5 billion of original risk under 25% mortgage insurance coverage). This assumption is based on a recent review of industry market share and volume trends. The multiple-book model is designed to simulate the number of times a mortgage insurer would require capital contributions if only Qualified Mortgages were insured and how much capital would be contributed in each case. The multi-book simulation did not allow for dividends and includes the following assumptions:

- $500 million in starting capital;
- 20% Expense Ratio (% of written premium);
- 35% Tax Rate; and
- 3% Investment Yield on Assets.

Milliman assumed an 85% correlation between successive book years for ultimate default rates and prepayment speeds.

These assumptions were selected to represent the starting financial position and expenses for a newly capitalized mortgage insurer and do not represent assumptions for UGC.

Milliman developed the investment yield assumption based on professional judgment and experience. A 3% investment yield may or may not be appropriate for any given mortgage insurer, and Milliman is not able to assess the reasonability of an interest rate of 3% for a mortgage insurer's investment portfolio

without performing a substantial amount of additional work beyond the scope of this report. As such, Milliman expresses no opinion on the appropriateness of the selected interest rate.

Capital contributions were calculated in each development year and aggregated for all development years to determine the cumulative amount of contributed capital for each trial. Milliman defined contributed capital as the amount of capital contributed in excess of cumulative premium and investment income to meet future obligations with consideration for the timing of cash flows. Capital is not contributed in the model until the $500 million on initial capital is depleted. Future obligations included paid losses, contingency reserve accumulation, taxes, and expenses. Milliman did not allow for dividends in the model.

Simulation Results

Exhibit 6 provides a summary of the simulation results. Exhibit 6 Page 1 provides the results for the single-book simulation, and Exhibit 6 Page 2 provides the results for the multiple-book simulation.

Single-book Simulation Results

Exhibit 6 Page 1 lists the simulated risk-to-capital ratio at different percentiles. An α-percentile is the value at which α% of the trials resulted in risk-to-capital ratios equal to or greater than the α-percentile simulated risk-to-capital ratio[5]. For example, the 95th percentile risk-to-capital ratio under the 70 basis point premium rate is 35.1; therefore, 95% of the trials (or 9,500 out of the 10,000 trials) resulted in risk-to-capital ratios at or above 35.1. In other words, for 9,500 trials a mortgage insurance company with an initial risk-to-capital ratio of 35.1 would **not** need capital contributions to cover paid losses.

In the exhibit, the set of columns on the far left shows the simulated ultimate default rates under 75 basis point and 70 basis point premium rates. The ultimate default rate is not influenced by the premium rate, so these two columns are identical. This column provides information on the number of defaults expected at each level of confidence. Milliman assumed a 100% loss severity in the model. The set of columns to the right of the ultimate default rate distributions shows the simulated loss ratio. The loss ratio, equal to paid losses divided by earned premium, provides for a test of premium adequacy. A ratio above 1 indicates ultimate losses were greater than earned premium, and a ratio less than 1 indicates ultimate losses were less than earned premium. The third set of columns shows the dollar amount of contributed capital at each level of confidence. The risk-to-capital ratio is shown in the far right set of columns. The risk-to-capital ratio is equal to the contributed capital divided by the original risk.

The box underneath the simulated percentile tables shows the percent of trials that resulted in a zero capital contribution; in other words, the percent of trials where the premium rate was adequate to cover paid losses. In the single-book analysis, nearly 90% of the trials resulted in zero contributed capital. Therefore, under current premium rates for Qualified Mortgages, 9 out of 10 books of business would not require capital contributions from the mortgage insurer.

Multiple-book Simulation Results

Exhibit 6 Page 2 summarizes the results of the multiple-book simulation. The multiple-book exhibit adds additional columns for the risk-to-capital ratio. The first column for the risk-to-capital ratio, labeled "Risk to Contributed Capital Ratio", calculates the risk-to-capital ratio as ratio of original risk divided by the amount of required capital in excess of the $500 million of initial capital for the mortgage insurer. The second column for the risk-to-capital ratio, labeled "Risk to Capital Ratio", calculates the risk-to-capital ratio as the ratio of original risk divided by sum of the contributed capital plus the $500 million in initial capital.

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[5]   The difference between the ultimate default rate percentiles for Qualified Mortgages on Table 1 and the simulated ultimate default rate percentiles on Exhibit 6 Page 1 is the percentiles on Table 1 are from the converged gamma fit while the percentiles from Exhibit 6 Page 1 are developed from 10,000 random simulations.

In the multiple-book simulation, approximately 97% of the trials resulted in zero capital contributions in excess of the $500 million of initial capital under both the 75 and 70 basis point premium rate assumptions. The reason for the greater number of trials that resulted in zero capital contributions is twofold: first, the mortgage insurer begins the simulation with $500 million in initial capital and second, the temporal diversification benefit.

The ultimate default rate percentiles in this Exhibit show the average simulated default rate for each of the 15 books of business; the value of the ultimate default rate percentiles are lower than the ultimate default percentiles for the single-book simulation. For example, the 99th percentile ultimate default rate for the multiple-book simulation is 19.1%; this compares to a 99th percentile ultimate default rate for the single-book simulation of 24.7%. The difference represents the temporal diversification benefit for mortgage insurers. Some books of business for a mortgage insurer will experience severe default rates; however, it is unlikely that all 15 books of business for a mortgage insurance company will result in severe default rates. Therefore, the average ultimate default rate is lower in the tail of the multiple-book simulation compared to the single-book simulation.

The 97.5th percentile risk-to-capital ratio under the 70 basis point premium rate is 52.7 including the $500 million in initial capital; therefore, 97.5% of the trials (or 9,750 out of the 10,000 trials) resulted in risk-to-capital ratios at or above 52.7. In other words, for 9,750 trials a mortgage insurance company with an initial risk-to-capital ratio of 52.7 would **not** need capital contributions to cover paid losses for multiple-books of Qualified Mortgages. The 95% confidence level did not require capital contributions.

QUALIFICATIONS, LIMITATIONS AND DISCLOSURES

In performing this analysis, we have relied on data and other information available to us through CoreLogic's LoanPerformance databases and publicly available mortgage insurance rate cards. We have not audited or verified this data and information. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have not found material defects in the data. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

The simulated losses discussed in this report are developed using publicly available data of Qualified Mortgages as defined above originated between 1998 and 2011. The ultimate loss rate distributions were not developed to fit any particular mixture of mortgages, notwithstanding the data filters discussed in this report, and may not reflect additional underwriting criteria that may be imposed by a mortgage insurance company. Furthermore, the data used to develop the distributions may not reflect the mix of business written by any given mortgage insurance company. For example, the data used to develop the distributions may have higher or lower average FICO scores compared to the business written by a mortgage insurer. The results presented in this report could differ, perhaps materially, if the mix of business written by a mortgage insurer is different from the mix of business used in this analysis.

Any study of future operating results involves estimates of future contingencies. While our analysis represents our best professional judgment, arrived at after careful analysis of the available information, it is important to note that a significant degree of variation from our projections is not only possible, but is in fact, probable. We have attempted to reflect this variability by providing a range of projected outcomes under various scenarios. However, there is no assurance that the actual ultimate outcomes will fall within the range provided. The sources of this variation are numerous: future national or regional economic conditions, mortgage prepayment speeds, and legislative changes could affect the performance of a mortgage insurer.

A simulation model illustrates the projected impact of actual results varying from projected results due to estimated variability inherent in the insurance process. This variability is referred to as process risk. Our simulation does not reflect the variation of actual results from projections due to parameter risk or specification risk. Parameter risk refers to the risk or uncertainty associated with the selection of the parameters underlying the applicable projection model. Specification risk refers to the risk or uncertainty surrounding the selection of the type of model used for the forecast. We have not attempted to quantify the impact of parameter or specification risk. Additionally, Milliman's analysis is limited to the variability of losses and premiums. Other risks, including but not limited to: operational, asset, liquidity, legal, regulatory and strategic, are outside the scope of our analysis.

The uncertainty associated with our estimates is also magnified by the nature of mortgage insurance. Mortgage insurance results are sensitive to economic factors such as unemployment, housing market conditions, interest rate levels, etc. Past experience may not be indicative of future conditions. A loan underwritten in a given year is generally insured over several calendar years. Therefore, adverse economic conditions in a given calendar year could affect results not only for the current underwriting year, but also for prior underwriting years. Future economic developments that give rise to additional delinquencies and losses will impact ultimate losses. Loss forecasts are significantly more uncertain given the current economic deterioration, elevated default rates and adverse house price trends.

Continuing volatility in the housing and mortgage markets, as well as the overall economy, make it difficult to forecast a mortgage insurers future financial position. The unsettled economic environment may worsen, causing more future claims than currently forecasted. Potentially offsetting the economic factors are government-led initiatives which could have a stabilizing impact on the key variables that typically drive the level of future premiums and losses.

The analysis and any conclusions provided in Milliman's deliverables are based on data provided to Milliman by third party sources. Milliman does not warrant the accuracy or completeness of any third party data, and disclaims any and all liability in connection with such third party data. Any errors in the data provided may affect the results of our analysis. Milliman shall not be liable for the results of its analysis to the extent errors are contained in third party data sources.

Disclosures

Actuarial Standards require us to disclose the following:

Purpose

The purpose of this analysis is to independently estimate the amount of required capital needed to cover unexpected losses for Qualified Mortgages. Unexpected losses are losses incurred in excess of losses expected to be covered by earned premium. Performance data used in our analysis was evaluated as of March 31, 2012.

Constraints

There have been no constraints on this project (such as time, availability of data, or access to staff) that materially impacted our ability to provide this analysis to UGC.

Scope

Our estimates of each cohort's capital requirements with mortgage insurance business under a run-off scenario are characterized as statistically-defined estimates (mean, median, nth percentile) and Monte Carlo simulation distributions.

Our estimates are on an undiscounted with respect to the time value of money.

Our estimates do not include Unallocated Loss Adjustment Expenses (ULAE). ULAE typically includes other claims administration expenses.

LIMITED DISTRIBUTION OF RESULTS

Milliman's work is prepared solely for the internal business use of United Guaranty Corporation. Except as set forth below, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to legally benefit any third-party recipient of its work product, even if Milliman consents to the release of its work product to a third party. United Guaranty Corporation may distribute or submit for publication the final, Non-draft version of reports that, by mutual written agreement, are intended for general public distribution as well as any summaries, abstracts, or press releases prepared by United Guaranty Corporation subject to Milliman's prior review and approval, which shall not be unreasonably withheld or delayed. United Guaranty Corporation shall not edit, modify, summarize, abstract, or otherwise change the content of any final report and any distribution must include the entire report. Press releases mentioning such reports may be issued by Milliman or United Guaranty Corporation upon mutual agreement of United Guaranty Corporation and Milliman as to their content. Mentions of Milliman work will provide citations that will enable the reader to obtain the full report. Notwithstanding the foregoing, no Milliman report shall be used by United Guaranty Corporation in connection with any offering, prospectus, securities filing, or solicitation of investment. Professional reviewers engaged by United Guaranty Corporation or independent journals to provide peer review of Milliman's work must agree to terms of confidentiality that are reasonable and customary in the industry. Any piece of Milliman draft work to be provided to peer reviewers must receive prior Milliman approval, and Milliman shall not unreasonably withhold such approval. The copyright to all report content shall remain with Milliman unless otherwise agreed.

Any reader of this report must possess a certain level of expertise in areas relevant to this analysis to appreciate the significance of the assumptions and the impact of these assumptions on the illustrated results. The reader should be advised by, among other experts, actuaries or other professionals competent in the area of actuarial projections of the type in this report, so as to properly interpret the projection results.

◆　◆　◆　◆　◆

If you should have any questions with regard to this analysis or would like to have us consider additional information, please do not hesitate to contact us. We appreciate the opportunity to work with United Guaranty Corporation on this assignment.

Respectfully submitted,

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Principal and Financial Consultant

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KAB/JBG/sbs

October 22, 2012

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APPENDIX: COMPARISON OF RELATIVE DEFAULT PERFORMANCE FOR PRIVATELY INSURED MORTGAGES TO NON-INSURED MORTGAGES

Mortgage guaranty insurance protects mortgage lenders and investors from potential credit losses stemming from borrower defaults. This credit protection reduces realized credit losses on defaulted mortgages for banks that hold mortgage loans in their portfolio and facilitates the sale and transfer of mortgages in the secondary market. Additionally, the second underwrite provided by the mortgage insurers enhances the quality of the mortgages insured by private mortgage insurers and results in a lower default frequency on insured loans compared to similar loans not insured by private mortgage insurers.

Milliman published a study on the benefit of the second underwrite titled <u>Mortgage Insurance Loan Performance Analysis as of March 31, 2011</u> dated July 28, 2011. The study demonstrated that loans with mortgage insurance defaulted at a lower rate than loans not insured by private mortgage insurers, all else equal. The study was performed on loans originated between 2002 and 2007, and the results of the study were statistically significant. This appendix provides an update to this study using recent empirical default rates from the CoreLogic database for more recent origination years. The CoreLogic Servicing database has fields that identify loans with and without private mortgage insurance.

Milliman analyzed the same data described in this report to evaluate the benefit of the second underwrite provided by mortgage insurers. The data indicates that after 2008, the mortgage insurance industry was more selective in the loans it underwrote and insured, and loans with private mortgage insurance defaulted at a lower rate compared to similar Non-insured mortgage loans.

During the period in which the studied loans were originated, the private mortgage insurance companies delegated approval authority to the Freddie Mac and Fannie Mae ("GSE's") and their automated underwriting systems. It is difficult to separate the impact of the decisions made by Desktop Underwriter (Fannie Mae's automated underwriting system) and Loan Prospector (Freddie Mac's automated underwriting system) from the impact of the private mortgage insurance companies in those loans. Milliman segmented the loans into three cohorts: all loans in the dataset, GSE loans, and Non-GSE loans. The loans used in the appendix exclude loans insured by the Federal Housing Administration.

For this analysis Milliman defined a default as any loan that reached a 90-day delinquency status or worse. Milliman wanted to review the relative performance of privately insured loans compared to Non-insured loans for recent origination years. Using the definition of default described is this report would reduce the number of default incidence in the data for recent origination years because the default definition described in the report is conditional on the loan being terminated.

The table on the next page summarizes the relativity of the cumulative default rate for all loans insured by private mortgage insurers (PMI Loans) to similar loans not insured by private mortgage insurers (Non-PMI Loans) for all loans in the dataset, GSE loans, and Non-GSE loans.

TABLE 5 Default Rate Relativity (PMI to Non-PMI) All Loan Purposes			
Origination Year	**All Loans**	**GSE Loans**	**Non-GSE Loans**
1998	0.98	1.29	0.30
1999	0.84	1.05	0.57
2000	0.57	0.65	0.56
2001	0.63	0.74	0.54
2002	0.70	0.89	0.81
2003	0.95	1.25	0.64
2004	0.81	1.11	0.88
2005	0.63	0.86	0.70
2006	0.60	0.69	0.64
2007	0.70	0.90	0.73
2008	**0.54**	**0.74**	**0.69**
2009	**0.16**	**0.31**	**0.19**
2010	**0.39**	**0.39**	**0.51**
2008-2010 Average	**0.36**	**0.48**	**0.46**
Average of All Years	0.65	0.83	0.60

The average default rate across all years and all loans is 0.65 for PMI loans compared to Non-PMI Loans. Default rate relativities less than 1 indicate the cumulative default rate on PMI loans is lower than the cumulative default rate on Non-PMI loans. For the 2008 through 2010 origination years the average default rate relativity is 0.36 [0.36 = (0.54 + 0.16 + 0.39) / 3] for all loans. In other words, loans originated between 2008 and 2010 that are insured by private mortgage insurers are defaulting at a rate of approximately 36% of the default rate for similar loans not insured by private mortgage insurers.

The default rate relativity is higher for GSE loans compared to all loans with an average default rate relativity of 0.83. For the 2008 through 2010 origination years the average default rate relativity for GSE loans is 0.48 [0.48 = (0.74 + 0.31 + 0.39) / 3]. The lower default rate relativity for recent origination years indicates that private mortgage insurers have been more effective in managing credit risk for GSE loans compared to loans not insured by private mortgage insurers.

The average default rate relativity across all years for Non-GSE loans is 0.60. For the 2008 through 2010 origination years the average default rate relativity for Non-GSE loans is 0.46 [0.46 = (0.69 + 0.19 + 0.51) / 3]. For Non-GSE loans private mortgage insurers are providing a second underwrite that reduces the incidence of default.

Appendix Exhibit 1 Pages 1 through 3 provides the details for the figures in the above table. For example Appendix Exhibit 1 Page 1 provides a summary of the loan counts and calculations for the All Loans column. The exhibit shows for both Non-PMI loans and PMI loans the origination year of the loans, the number of loans in the cohort, the number of defaulting loans, the default rate, the average FICO score, and the average CLTV for each cohort. The column on the right of the exhibit calculates the default rate relativity as the ratio of the PMI Loans default rate to the Non-PMI Loans default rate. Appendix Exhibit 1 Pages 2 and 3 provide the summaries of the loan counts and calculations for GSE and Non-GSE loans.

Appendix Exhibit 2 provides charts of the cumulative default rate development for PMI Loans and Non-PMI Loans for origination years 2008 through 2010. The cohorts on the charts are: All Loans, GSE Loans, and Non-GSE Loans. The charts demonstrate PMI Loans are consistently performing better than Non-PMI Loans in terms of default incidence for recent originations.

Milliman reviewed the loans counts in the data for GSE loans without PMI. For recent origination years, the majority of GSE loans without PMI are classified as rate or term refinance loans. Milliman thinks a large portion of these loans may be related to governmental programs such as the Home Affordable Refinance Program ("HARP") and others and may bias the performance difference in PMI loans to Non-PMI loans. Therefore, Milliman re-created the analysis described above using only loans flagged as purchase loans in the data. The table below provides a summary of the results.

TABLE 6 Default Rate Relativity (PMI to Non-PMI) Purchase Loans Only			
Origination Year	**Purchase Loans**	**GSE Purchase Loans**	**Non-GSE Purchase Loans**
1998	0.86	1.16	0.32
1999	0.76	0.98	0.56
2000	0.54	0.62	0.54
2001	0.52	0.62	0.50
2002	0.61	0.84	0.70
2003	0.92	1.35	0.60
2004	0.82	1.20	0.89
2005	0.66	0.93	0.75
2006	0.63	0.74	0.66
2007	0.76	0.86	0.77
2008	**0.55**	**0.83**	**0.74**
2009	**0.10**	**0.47**	**0.29**
2010	**0.12**	**0.28**	**0.29**
2008-2010 Average	**0.26**	**0.52**	**0.44**
Average of All Years	0.60	0.84	0.59

The average default rate across all years and all loans for purchase loans is 0.60 for PMI loans compared to Non-PMI Loans. For the 2008 through 2010 origination years the average default rate relativity is 0.26 [0.26 = (0.55 + 0.10 + 0.12) / 3] for all purchase loans. In other words, purchase loans originated between 2008 and 2010 that are insured by private mortgage insurers are defaulting at a rate of approximately 26% of the default rate for similar loans not insured by private mortgage insurers.

The default rate relativity is higher for GSE purchase loans compared to all purchase loans with an average default rate relativity of 0.84. For the 2008 through 2010 origination years the average default rate relativity for GSE purchase loans is 0.52 [0.52 = (0.83 + 0.47 + 0.28) / 3]. The lower default rate relativity for recent origination years again indicates that private mortgage insurers have been more effective in managing credit risk for GSE purchase loans compared to loans not insured by private mortgage insurers.

The average default rate relativity across all years for Non-GSE purchase loans is 0.59. For the 2008 through 2010 origination years the average default rate relativity for Non-GSE purchase loans is 0.44 [0.44 = (0.74 + 0.29 + 0.29) / 3]. For Non-GSE purchase loans private mortgage insurers are providing a second underwrite that reduces the incidence of default.

Appendix Exhibit 3 Pages 1 through 3 provides the details for the figures in the above table for Purchase Loans, GSE Purchase loans, and Non-GSE Purchase loans, respectively.

Appendix Exhibit 4 provides charts of the cumulative default rate development for purchase loans segmented into PMI Loans and Non-PMI Loans for origination years 2008 through 2010. The cohorts on the charts are: Purchase Loans, GSE Purchase Loans, and Non-GSE Purchase Loans. The charts demonstrate purchase loans with PMI are consistently performing better than purchase loans without PMI in terms of default incidence for recent originations.

Exhibit 1
Page 1

United Guaranty Corporation
Summary of Qualified Mortgage Filter from the Corelogic Servicing Database
by Origination Period

	Loan Count			Loan Amount ($000's)		
Origination Period	Total Number of Loans	Number of Loans that are Qualified Mortgages	Percent of Total Number of Loans that are Qualified Mortgages	Total Loan Amount	Loan Amount for Loans that are Qualified Mortgages	Percent of Total Number of Loans that are Qualified Mortgages
1998 4	49,611	22,851	46.1%	5,725,397	2,732,034	47.7%
1999 1	42,547	20,242	47.6%	4,962,599	2,464,921	49.7%
1999 2	41,766	18,485	44.3%	4,816,568	2,232,712	46.4%
1999 3	29,921	13,187	44.1%	3,384,091	1,541,201	45.5%
1999 4	20,526	9,359	45.6%	2,258,999	1,049,562	46.5%
2000 1	13,209	5,536	41.9%	1,423,255	594,673	41.8%
2000 2	14,060	6,226	44.3%	1,488,966	659,442	44.3%
2000 3	16,500	8,276	50.2%	1,800,167	922,617	51.3%
2000 4	19,922	10,153	51.0%	2,244,833	1,173,765	52.3%
2001 1	45,921	23,416	51.0%	5,834,443	3,030,121	51.9%
2001 2	65,084	33,856	52.0%	8,438,898	4,511,614	53.5%
2001 3	57,734	28,662	49.6%	7,527,453	3,751,412	49.8%
2001 4	87,637	43,570	49.7%	11,826,282	5,872,753	49.7%
2002 1	76,998	37,835	49.1%	10,395,551	5,108,902	49.1%
2002 2	80,358	37,185	46.3%	10,888,558	5,065,121	46.5%
2002 3	124,631	60,519	48.6%	17,827,570	8,726,207	48.9%
2002 4	172,257	86,357	50.1%	25,563,653	12,831,226	50.2%
2003 1	168,196	85,736	51.0%	25,369,849	12,871,674	50.7%
2003 2	221,225	113,711	51.4%	34,533,311	17,496,587	50.7%
2003 3	216,445	105,323	48.7%	33,991,443	16,080,073	47.3%
2003 4	131,287	53,612	40.8%	20,345,652	7,969,892	39.2%
2004 1	139,650	56,202	40.2%	22,986,818	8,543,585	37.2%
2004 2	161,797	58,452	36.1%	27,135,007	8,951,480	33.0%
2004 3	142,506	44,246	31.0%	24,551,812	6,791,680	27.7%
2004 4	142,820	41,016	28.7%	26,505,813	6,593,991	24.9%

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Exhibit 1
Page 2

United Guaranty Corporation
Summary of Qualified Mortgage Filter from the Corelogic Servicing Database
by Origination Period

	Loan Count				Loan Amount ($000's)			
Origination Period	Total Number of Loans	Number of Loans that are Qualified Mortgages	Percent of Total Number of Loans that are Qualified Mortgages		Total Loan Amount	Loan Amount for Loans that are Qualified Mortgages	Percent of Total Number of Loans that are Qualified Mortgages	
2005 1	135,002	38,345	28.4%		26,273,959	6,392,548	24.3%	
2005 2	191,910	50,259	26.2%		40,668,737	8,696,218	21.4%	
2005 3	219,159	59,743	27.3%		48,439,563	10,749,097	22.2%	
2005 4	182,415	43,734	24.0%		41,438,093	7,866,798	19.0%	
2006 1	166,643	36,482	21.9%		38,243,128	6,617,219	17.3%	
2006 2	208,784	42,944	20.6%		47,781,799	8,000,315	16.7%	
2006 3	213,740	45,855	21.5%		47,797,681	8,567,663	17.9%	
2006 4	221,985	48,760	22.0%		50,998,310	9,457,489	18.5%	
2007 1	235,067	52,506	22.3%		54,503,199	10,566,419	19.4%	
2007 2	328,919	79,407	24.1%		73,546,025	16,215,588	22.0%	
2007 3	270,302	73,134	27.1%		59,052,588	14,745,176	25.0%	
2007 4	241,225	87,090	36.1%		52,962,735	18,524,466	35.0%	
2008 1	215,990	98,927	45.8%		48,159,892	21,646,510	44.9%	
2008 2	183,927	100,765	54.8%		40,110,502	21,735,600	54.2%	
2008 3	135,285	66,306	49.0%		28,823,982	14,180,982	49.2%	
2008 4	104,383	57,694	55.3%		22,005,413	12,434,001	56.5%	
2009 1	94,543	62,619	66.2%		20,549,779	14,189,257	69.0%	
2009 2	128,748	73,572	57.1%		28,964,725	17,133,840	59.2%	
2009 3	125,941	52,867	42.0%		28,147,816	12,716,120	45.2%	
2009 4	128,809	53,282	41.4%		29,066,803	12,925,881	44.5%	
2010 1	108,373	41,596	38.4%		24,592,015	10,044,831	40.8%	
2010 2	108,889	43,025	39.5%		24,195,057	10,149,633	41.9%	
2010 3	144,347	55,854	38.7%		33,081,277	13,441,125	40.6%	
2010 4	194,636	87,070	44.7%		45,191,533	20,557,354	45.5%	
2011 1	118,853	48,025	40.4%		26,744,387	10,680,775	39.9%	
2011 2	104,753	45,375	43.3%		23,142,935	10,076,550	43.5%	
2011 3	122,813	62,691	51.0%		27,370,748	14,301,147	52.2%	
2011 4	124,669	67,318	54.0%		27,592,861	15,323,035	55.5%	
Total	7,042,718	2,699,258	38.3%		1,401,272,530	505,502,887	36.1%	

*Annual rate cap of 2% or less, lifetime rate cap of 6% or less

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Exhibit 2
Page 1

United Guaranty Corporation
Capital Analysis using CoreLogic Servicing Database
Loss Development Factors
All Loans

Development Quarter

	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21
Book Year Dollars																				
Ave	17.03	3.71	2.49	2.07	1.77	1.76	1.55	1.49	1.39	1.33	1.28	1.23	1.19	1.16	1.14	1.12	1.11	1.10	1.09	1.08
Ave x H/L	14.96	3.68	2.49	1.99	1.74	1.69	1.53	1.46	1.37	1.32	1.27	1.22	1.19	1.16	1.14	1.12	1.11	1.10	1.09	1.08
WA	2.74	2.88	2.38	2.00	1.81	1.60	1.49	1.41	1.34	1.28	1.24	1.20	1.17	1.14	1.12	1.11	1.10	1.09	1.09	1.08
Ave '04-'11	17.27	3.72	2.58	2.00	1.74	1.59	1.47	1.40	1.33	1.27	1.23	1.19	1.16	1.15	1.13	1.12	1.11	1.10	1.10	1.09
Ave x H/L '04-'11	14.79	3.70	2.58	1.99	1.74	1.59	1.46	1.39	1.33	1.27	1.23	1.19	1.16	1.14	1.12	1.11	1.11	1.10	1.10	1.09
WA '04-'11	2.60	2.85	2.40	2.02	1.83	1.67	1.50	1.41	1.34	1.29	1.24	1.20	1.18	1.14	1.12	1.11	1.10	1.09	1.09	1.08
Book Year Counts																				
Ave	14.25	3.50	2.37	2.01	1.75	1.69	1.51	1.46	1.38	1.33	1.29	1.23	1.19	1.16	1.14	1.12	1.11	1.10	1.09	1.08
Ave x H/L	12.47	3.43	2.36	1.97	1.73	1.66	1.50	1.44	1.37	1.33	1.28	1.23	1.19	1.16	1.14	1.12	1.11	1.10	1.09	1.08
WA	2.67	2.63	2.23	1.90	1.72	1.59	1.46	1.38	1.33	1.28	1.24	1.20	1.17	1.14	1.12	1.11	1.10	1.09	1.09	1.08
Ave '04-'11	14.65	3.52	2.42	1.93	1.69	1.56	1.44	1.37	1.32	1.26	1.23	1.19	1.16	1.14	1.12	1.11	1.10	1.09	1.09	1.08
Ave x H/L '04-'11	12.54	3.43	2.41	1.92	1.70	1.55	1.43	1.36	1.31	1.26	1.22	1.18	1.15	1.14	1.12	1.11	1.10	1.09	1.09	1.08
WA '04-'11	2.52	2.58	2.24	1.90	1.74	1.60	1.46	1.39	1.33	1.28	1.24	1.20	1.18	1.14	1.12	1.11	1.10	1.09	1.09	1.08
Selection:	14.08	4.47	2.80	2.16	1.84	1.65	1.52	1.43	1.36	1.31	1.26	1.23	1.20	1.18	1.16	1.14	1.13	1.12	1.10	1.09

Development Quarter

	21-22	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32	32-33	33-34	34-35	35-36	36-37	37-38	38-39	39-40	40-41
Book Year Dollars																				
Ave	1.07	1.06	1.06	1.05	1.05	1.05	1.04	1.04	1.03	1.03	1.03	1.03	1.02	1.02	1.02	1.02	1.02	1.01	1.01	1.01
Ave x H/L	1.07	1.06	1.06	1.05	1.05	1.05	1.04	1.04	1.03	1.03	1.03	1.03	1.02	1.02	1.02	1.02	1.02	1.01	1.01	1.01
WA	1.07	1.07	1.07	1.07	1.06	1.06	1.05	1.05	1.04	1.04	1.04	1.04	1.03	1.02	1.02	1.02	1.02	1.02	1.01	1.02
Ave '04-'11	1.08	1.08	1.07	1.06	1.06	1.06	1.05	1.05	1.04	1.04	1.03	1.00								
Ave x H/L '04-'11	1.08	1.08	1.08	1.07	1.06	1.06	1.06	1.05	1.05	1.06	1.05									
WA '04-'11	1.08	1.07	1.07	1.07	1.07	1.06	1.06	1.06	1.06	1.06	1.05									
Selection:	1.09	1.08	1.07	1.06	1.06	1.05	1.05	1.04	1.04	1.04	1.03	1.03	1.03	1.03	1.02	1.02	1.02	1.02	1.02	1.01
Book Year Counts																				
Ave	1.07	1.06	1.06	1.05	1.05	1.05	1.04	1.04	1.04	1.03	1.03	1.03	1.03	1.02	1.02	1.02	1.02	1.02	1.01	1.02
Ave x H/L	1.07	1.06	1.06	1.05	1.05	1.05	1.04	1.04	1.04	1.03	1.03	1.03	1.02	1.02	1.02	1.02	1.02	1.02	1.01	1.02
WA	1.07	1.07	1.07	1.06	1.06	1.05	1.05	1.05	1.04	1.04	1.04	1.03	1.03	1.03	1.02	1.02	1.02	1.02	1.01	1.02
Ave '04-'11	1.08	1.07	1.07	1.06	1.06	1.06	1.05	1.05	1.05	1.06	1.03	1.00								
Ave x H/L '04-'11	1.08	1.07	1.07	1.06	1.06	1.06	1.05	1.05	1.05	1.06	1.05									
WA '04-'11	1.08	1.07	1.07	1.07	1.07	1.06	1.06	1.05	1.05	1.06	1.06									
Selection:	1.09	1.08	1.07	1.06	1.06	1.05	1.05	1.04	1.04	1.04	1.03	1.03	1.03	1.03	1.02	1.02	1.02	1.02	1.02	1.01

Development Quarter

	41-42	42-43	43-44	44-45	45-46	46-47	47-48	48-49	49-50	50-51	51-52	52-53	53-54	54-55	55-56	56-57	57-58	58-59
Book Year Dollars																		
Ave	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	
Ave x H/L	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	
WA	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.02	1.01	1.01	1.00	1.00	1.00	1.00	1.00	
Ave '04-'11										1.01	1.01	1.01	1.00					
Ave x H/L '04-'11										1.01	1.01	1.01	1.00					
WA '04-'11										1.02	1.02	1.01	1.00					
Selection:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	
Book Year Counts																		
Ave	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	
Ave x H/L	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	
WA	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.02	1.02	1.01	1.00	1.00	1.00	1.00	1.00	1.00
Ave '04-'11																		
Ave x H/L '04-'11																		
WA '04-'11																		
Selection:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	

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Exhibit 2
Page 2

United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
All Loans
Paid LDF-Method

Book Year	A Cumulative Default Rate as of 03/31/2012	B LDF	C = A * B Indicated Ultimate Default Rate
1998 4	4.65%	1.040	4.84%
1999 1	4.89%	1.044	5.11%
1999 2	6.01%	1.049	6.30%
1999 3	7.56%	1.055	7.98%
1999 4	8.29%	1.061	8.80%
2000 1	9.66%	1.068	10.32%
2000 2	11.35%	1.075	12.20%
2000 3	10.37%	1.083	11.24%
2000 4	9.31%	1.093	10.17%
2001 1	5.49%	1.103	6.06%
2001 2	5.04%	1.114	5.62%
2001 3	5.48%	1.127	6.17%
2001 4	4.43%	1.141	5.05%
2002 1	4.71%	1.156	5.44%
2002 2	5.05%	1.173	5.92%
2002 3	4.10%	1.193	4.89%
2002 4	3.63%	1.214	4.41%
2003 1	3.61%	1.238	4.47%
2003 2	3.48%	1.264	4.40%
2003 3	3.92%	1.294	5.07%
2003 4	5.15%	1.327	6.83%
2004 1	5.64%	1.365	7.69%
2004 2	6.42%	1.407	9.03%
2004 3	8.42%	1.455	12.24%
2004 4	10.22%	1.508	15.41%

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Exhibit 2
Page 3

United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
All Loans
Paid LDF-Method

Book Year	A Cumulative Default Rate as of 03/31/2012	B LDF	C = A * B Indicated Ultimate Default Rate
2005 1	12.02%	1.569	18.86%
2005 2	14.66%	1.639	24.04%
2005 3	17.20%	1.719	29.56%
2005 4	20.68%	1.810	37.44%
2006 1	22.10%	1.916	42.35%
2006 2	20.92%	2.039	42.65%
2006 3	20.70%	2.183	45.18%
2006 4	21.07%	2.352	49.56%
2007 1	19.79%	2.553	50.52%
2007 2	17.89%	2.794	49.99%
2007 3	15.82%	3.085	48.79%
2007 4	14.25%	3.441	49.03%
2008 1	9.72%	3.883	37.73%
2008 2	6.04%	4.438	26.79%
2008 3	4.50%	5.148	23.14%
2008 4	3.04%	6.072	18.47%
2009 1	2.26%	7.305	16.53%
2009 2	1.40%	8.991	12.63%
2009 3	1.03%	11.369	11.68%
2009 4	0.67%	14.847	9.89%
2010 1	0.60%	20.167	12.06%
2010 2	0.42%	28.762	11.95%
2010 3	0.26%	43.647	11.21%
2010 4	0.16%	71.858	11.35%
2011 1	0.27%	132.276	35.47%
2011 2	0.14%	286.338	39.07%
2011 3	0.02%	801.215	14.33%
2011 4	0.00%	3583.482	2.08%

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Exhibit 2
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United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
All Loans
Unadjusted BF Method

	A	B	C = A * (1-1/LDF)	D = B + C
Book Year	Unadjusted A Priori Ultimate Default Rate	Cumulative Default Rate as of 03/31/2012	Indicated Future Rate as of 03/31/2012	Unadjusted BF Indicated Ultimate Default Rate
1998 4	9.97%	4.65%	0.38%	5.03%
1999 1	10.87%	4.89%	0.46%	5.35%
1999 2	12.05%	6.01%	0.57%	6.57%
1999 3	14.17%	7.56%	0.74%	8.30%
1999 4	15.34%	8.29%	0.88%	9.17%
2000 1	16.25%	9.66%	1.03%	10.69%
2000 2	16.91%	11.35%	1.18%	12.53%
2000 3	16.89%	10.37%	1.30%	11.67%
2000 4	15.92%	9.31%	1.35%	10.66%
2001 1	13.23%	5.49%	1.23%	6.73%
2001 2	13.65%	5.04%	1.40%	6.44%
2001 3	13.16%	5.48%	1.48%	6.96%
2001 4	11.91%	4.43%	1.47%	5.89%
2002 1	12.60%	4.71%	1.70%	6.41%
2002 2	13.59%	5.05%	2.01%	7.06%
2002 3	12.00%	4.10%	1.94%	6.04%
2002 4	10.98%	3.63%	1.94%	5.57%
2003 1	10.92%	3.61%	2.10%	5.71%
2003 2	10.78%	3.48%	2.25%	5.74%
2003 3	11.15%	3.92%	2.53%	6.45%
2003 4	13.34%	5.15%	3.29%	8.44%
2004 1	14.97%	5.64%	4.00%	9.64%
2004 2	16.84%	6.42%	4.87%	11.29%
2004 3	19.73%	8.42%	6.17%	14.58%
2004 4	22.99%	10.22%	7.75%	17.97%

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Exhibit 2
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United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
All Loans
Unadjusted BF Method

	A	B	C = A * (1-1/LDF)	D = B + C
Book Year	Unadjusted A Priori Ultimate Default Rate	Cumulative Default Rate as of 03/31/2012	Indicated Future Rate as of 03/31/2012	Unadjusted BF Indicated Ultimate Default Rate
2005 1	24.74%	12.02%	8.98%	20.99%
2005 2	29.33%	14.66%	11.44%	26.10%
2005 3	30.86%	17.20%	12.90%	30.10%
2005 4	35.21%	20.68%	15.76%	36.44%
2006 1	37.60%	22.10%	17.98%	40.08%
2006 2	38.01%	20.92%	19.37%	40.29%
2006 3	38.79%	20.70%	21.02%	41.72%
2006 4	38.30%	21.07%	22.02%	43.09%
2007 1	40.03%	19.79%	24.35%	44.14%
2007 2	36.37%	17.89%	23.35%	41.25%
2007 3	33.97%	15.82%	22.96%	38.78%
2007 4	29.00%	14.25%	20.57%	34.82%
2008 1	23.51%	9.72%	17.45%	27.17%
2008 2	20.53%	6.04%	15.90%	21.94%
2008 3	21.54%	4.50%	17.36%	21.85%
2008 4	20.41%	3.04%	17.05%	20.09%
2009 1	13.63%	2.26%	11.76%	14.03%
2009 2	13.88%	1.40%	12.34%	13.74%
2009 3	16.46%	1.03%	15.01%	16.04%
2009 4	16.66%	0.67%	15.54%	16.20%
2010 1	17.37%	0.60%	16.51%	17.11%
2010 2	16.62%	0.42%	16.05%	16.46%
2010 3	15.36%	0.26%	15.01%	15.27%
2010 4	13.96%	0.16%	13.77%	13.93%
2011 1	17.01%	0.27%	16.88%	17.15%
2011 2	15.66%	0.14%	15.61%	15.74%
2011 3	12.43%	0.02%	12.41%	12.43%
2011 4	11.19%	0.00%	11.18%	11.18%

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Exhibit 2
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United Guaranty Corporation
Capital Analysis using CoreLogic Servicing Database
All Loans
Conditional Prepayment Rate

Development Quarters

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Amount Based															
Average	6.3%	8.0%	10.1%	12.0%	12.6%	13.4%	14.5%	15.3%	15.3%	15.6%	16.3%	15.8%	15.2%	15.5%	15.7%
Average x H/L	5.9%	7.5%	9.7%	11.5%	12.2%	12.9%	14.0%	14.9%	15.0%	15.3%	16.1%	15.5%	14.9%	15.2%	15.5%
Weighted Average	7.5%	8.9%	10.4%	11.7%	12.2%	12.3%	12.7%	13.4%	13.7%	14.4%	15.2%	15.2%	15.9%	16.3%	16.7%
Count Based															
Average	5.9%	7.3%	9.2%	10.9%	11.5%	12.2%	13.3%	14.0%	14.0%	14.4%	15.0%	14.8%	14.4%	14.7%	15.0%
Average x H/L	5.6%	6.9%	8.9%	10.5%	11.1%	11.8%	12.9%	13.7%	13.8%	14.1%	14.8%	14.4%	14.1%	14.5%	14.8%
Weighted Average	7.3%	8.8%	10.4%	11.8%	12.4%	12.6%	12.9%	13.5%	13.6%	14.2%	14.9%	15.0%	15.6%	15.9%	16.3%

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Amount Based															
Average	15.1%	14.0%	13.5%	14.0%	13.4%	12.1%	11.4%	11.7%	11.6%	11.3%	11.7%	11.8%	11.7%	10.8%	10.6%
Average x H/L	14.7%	13.6%	13.2%	13.6%	13.0%	11.9%	11.3%	11.6%	11.6%	11.2%	11.4%	11.4%	11.3%	10.6%	10.3%
Weighted Average	17.0%	16.3%	16.1%	17.2%	16.3%	15.2%	14.7%	16.0%	16.0%	15.5%	15.3%	16.1%	16.3%	16.0%	15.6%
Count Based															
Average	14.6%	13.5%	13.1%	13.4%	12.8%	11.7%	11.0%	11.2%	11.0%	10.7%	10.9%	10.9%	10.8%	10.0%	9.7%
Average x H/L	14.2%	13.1%	12.6%	12.8%	12.2%	11.3%	10.8%	11.0%	10.9%	10.4%	10.4%	10.4%	10.3%	9.7%	9.4%
Weighted Average	16.7%	16.0%	15.6%	16.1%	15.4%	14.3%	13.6%	14.5%	14.5%	14.1%	14.0%	14.5%	14.6%	14.4%	13.9%

	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Amount Based															
Average	10.8%	10.1%	9.5%	8.7%	8.8%	8.1%	7.7%	7.4%	7.9%	8.2%	8.1%	8.1%	8.3%	7.8%	7.8%
Average x H/L	10.4%	9.7%	9.0%	8.4%	8.4%	7.8%	7.6%	7.0%	7.2%	8.1%	7.8%	7.1%	7.2%	7.2%	7.3%
Weighted Average	15.9%	17.2%	17.1%	15.3%	15.2%	13.7%	11.9%	11.1%	12.7%	12.1%	12.1%	12.1%	11.5%	10.5%	11.1%
Count Based															
Average	9.8%	9.3%	8.6%	7.9%	8.0%	7.5%	7.2%	6.9%	7.5%	7.3%	7.1%	7.6%	7.8%	7.2%	7.1%
Average x H/L	9.4%	8.8%	8.2%	7.6%	7.6%	7.2%	6.9%	6.5%	6.8%	7.0%	6.5%	6.3%	6.4%	6.3%	6.3%
Weighted Average	14.3%	15.4%	15.1%	13.4%	13.4%	12.3%	10.9%	10.3%	11.8%	10.9%	10.9%	11.3%	10.5%	9.6%	10.0%

	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Amount Based															
Average	7.6%	8.9%	8.1%	8.5%	9.9%	10.7%	5.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Average x H/L	7.3%	8.8%	8.4%	9.1%	9.8%	10.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Weighted Average	10.2%	12.5%	11.7%	13.2%	15.3%	18.7%	12.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Count Based															
Average	6.8%	8.2%	7.6%	7.7%	9.2%	10.5%	4.9%								
Average x H/L	6.2%	7.7%	7.5%	8.1%	8.4%	9.2%									
Weighted Average	9.0%	11.5%	10.9%	11.9%	14.2%	18.6%	11.2%								

	Dollar Based CPR	Count Based CPR
Average of Wtd Average 9-36	15.8%	14.8%

Selected Long-Term CPR: **16%**

Selected Long-Term PSA: **267%**

	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
St Dev CPR	11%	10%	10%	11%	10%	9%	7%	5%	4%	5%	5%	6%	6%	5%	4%
CV	81%	67%	66%	65%	61%	50%	44%	30%	29%	34%	32%	35%	32%	33%	34%

Average of Wtd Average 9-36	47%	46%

Selected CV: **40%**

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Exhibit 2
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United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
All Loans
Adjusted Paid BF Method

	A	B	C	D = B / C	E = A * D	F	G = E*(1-1/LDF)	H = F + G
Book Year	A Priori Ultimate	Actual Percent In-force as of 03/31/2012	Expected Percent In-force as of 03/31/2012	Actual to Expected In-force as of 03/31/2012	Adjusted A Priori Ultimate	Cumulative Default Rate as of 03/31/2012	Indicated Future Default Rate as of 03/31/2012	Adjusted BF Indicated Ultimate Default Rate
1998 4	9.97%	13.89%	11.80%	117.65%	11.73%	4.65%	0.45%	5.10%
1999 1	10.87%	12.04%	12.33%	97.69%	10.62%	4.89%	0.45%	5.34%
1999 2	12.05%	12.18%	12.88%	94.55%	11.39%	6.01%	0.53%	6.54%
1999 3	14.17%	11.32%	13.45%	84.17%	11.92%	7.56%	0.62%	8.18%
1999 4	15.34%	13.73%	14.05%	97.73%	15.00%	8.29%	0.86%	9.15%
2000 1	16.25%	14.30%	14.68%	97.43%	15.83%	9.66%	1.00%	10.67%
2000 2	16.91%	17.14%	15.33%	111.79%	18.91%	11.35%	1.32%	12.67%
2000 3	16.89%	14.65%	16.01%	91.47%	15.45%	10.37%	1.19%	11.56%
2000 4	15.92%	13.44%	16.73%	80.35%	12.79%	9.31%	1.08%	10.39%
2001 1	13.23%	11.01%	17.47%	63.01%	8.34%	5.49%	0.78%	6.27%
2001 2	13.65%	9.99%	18.25%	54.71%	7.47%	5.04%	0.77%	5.81%
2001 3	13.16%	11.26%	19.07%	59.04%	7.77%	5.48%	0.87%	6.35%
2001 4	11.91%	13.93%	19.91%	69.93%	8.33%	4.43%	1.03%	5.45%
2002 1	12.60%	12.55%	20.80%	60.34%	7.60%	4.71%	1.03%	5.73%
2002 2	13.59%	13.03%	21.73%	59.97%	8.15%	5.05%	1.20%	6.25%
2002 3	12.00%	15.71%	22.70%	69.22%	8.30%	4.10%	1.34%	5.44%
2002 4	10.98%	18.84%	23.71%	79.48%	8.73%	3.63%	1.54%	5.17%
2003 1	10.92%	23.24%	24.76%	93.86%	10.25%	3.61%	1.97%	5.58%
2003 2	10.78%	29.74%	25.87%	114.98%	12.39%	3.48%	2.59%	6.07%
2003 3	11.15%	32.75%	27.02%	121.20%	13.51%	3.92%	3.07%	6.99%
2003 4	13.34%	28.61%	28.22%	101.36%	13.52%	5.15%	3.34%	8.48%
2004 1	14.97%	34.11%	29.48%	115.71%	17.32%	5.64%	4.63%	10.27%
2004 2	16.84%	34.72%	30.79%	112.74%	18.98%	6.42%	5.49%	11.91%
2004 3	19.73%	34.05%	32.17%	105.85%	20.88%	8.42%	6.53%	14.94%
2004 4	22.99%	40.45%	33.60%	120.39%	27.68%	10.22%	9.33%	19.55%

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Exhibit 2
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United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
All Loans
Adjusted Paid BF Method

Book Year	A A Priori Ultimate	B Actual Percent In-force as of 03/31/2012	C Expected Percent In-force as of 03/31/2012	D = B / C Actual to Expected In-force as of 03/31/2012	E = A * D Adjusted A Priori Ultimate	F Cumulative Default Rate as of 03/31/2012	G = E*(1-1/LDF) Indicated Future Default Rate as of 03/31/2012	H = F + G Adjusted BF Indicated Ultimate Default Rate
2005 1	24.74%	42.24%	35.10%	120.34%	29.77%	12.02%	10.80%	22.82%
2005 2	29.33%	44.73%	36.66%	122.02%	35.78%	14.66%	13.95%	28.62%
2005 3	30.86%	45.79%	38.29%	119.57%	36.89%	17.20%	15.43%	32.63%
2005 4	35.21%	43.12%	40.00%	107.81%	37.96%	20.68%	16.99%	37.67%
2006 1	37.60%	43.95%	41.78%	105.18%	39.55%	22.10%	18.91%	41.01%
2006 2	38.01%	43.51%	43.64%	99.69%	37.90%	20.92%	19.31%	40.23%
2006 3	38.79%	42.67%	45.59%	93.61%	36.31%	20.70%	19.68%	40.37%
2006 4	38.30%	46.63%	47.62%	97.92%	37.50%	21.07%	21.56%	42.63%
2007 1	40.03%	51.05%	49.74%	102.63%	41.08%	19.79%	24.99%	44.78%
2007 2	36.37%	50.00%	51.96%	96.24%	35.00%	17.89%	22.48%	40.37%
2007 3	33.97%	47.40%	54.27%	87.35%	29.67%	15.82%	20.06%	35.87%
2007 4	29.00%	48.59%	56.69%	85.71%	24.85%	14.25%	17.63%	31.88%
2008 1	23.51%	52.69%	59.21%	88.98%	20.92%	9.72%	15.53%	25.25%
2008 2	20.53%	49.96%	61.85%	80.78%	16.58%	6.04%	12.85%	18.88%
2008 3	21.54%	40.07%	64.61%	62.01%	13.36%	4.50%	10.76%	15.26%
2008 4	20.41%	49.47%	67.49%	73.30%	14.96%	3.04%	12.50%	15.54%
2009 1	13.63%	73.50%	70.49%	104.26%	14.21%	2.26%	12.26%	14.53%
2009 2	13.88%	81.64%	73.63%	110.87%	15.39%	1.40%	13.68%	15.09%
2009 3	16.46%	81.07%	76.91%	105.41%	17.35%	1.03%	15.82%	16.85%
2009 4	16.66%	84.43%	80.34%	105.09%	17.51%	0.67%	16.33%	16.99%
2010 1	17.37%	86.71%	83.79%	103.48%	17.98%	0.60%	17.09%	17.68%
2010 2	16.62%	87.50%	86.97%	100.61%	16.72%	0.42%	16.14%	16.56%
2010 3	15.36%	92.89%	89.87%	103.36%	15.88%	0.26%	15.52%	15.77%
2010 4	13.96%	95.79%	92.44%	103.62%	14.47%	0.16%	14.27%	14.43%
2011 1	17.01%	95.34%	94.66%	100.72%	17.13%	0.27%	17.00%	17.27%
2011 2	15.66%	95.59%	96.52%	99.04%	15.51%	0.14%	15.46%	15.59%
2011 3	12.43%	98.03%	97.99%	100.04%	12.43%	0.02%	12.42%	12.43%
2011 4	11.19%	99.42%	99.06%	100.36%	11.23%	0.00%	11.22%	11.22%

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Exhibit 2
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United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
All Loans
Ultimate Default Rate Selections
Evaluation as of 03/31/2012

Book Year	Original Loan Amount ($000s)	Percent of loans that are Qualified Mortgages (Amount)	Original Loan Count	Percent QM (Count)	Cum. Default Rate as of 03/31/2012	LDF Method Default Rate	Indicated Ultimate Unadjusted BF Default Rate	Indicated Ultimate Adjusted BF Default Rate	Selected Ultimate Default Rate
1998 4	5,725,397	48%	49,611	46%	4.65%	4.84%	5.03%	5.10%	4.84%
1999 1	4,962,599	50%	42,547	48%	4.89%	5.11%	5.35%	5.34%	5.11%
1999 2	4,816,568	46%	41,766	44%	6.01%	6.30%	6.57%	6.54%	6.30%
1999 3	3,384,091	46%	29,921	44%	7.56%	7.98%	8.30%	8.18%	7.98%
1999 4	2,258,999	46%	20,526	46%	8.29%	8.80%	9.17%	9.15%	8.80%
2000 1	1,423,255	42%	13,209	42%	9.66%	10.32%	10.69%	10.67%	10.32%
2000 2	1,488,966	44%	14,060	44%	11.35%	12.20%	12.53%	12.67%	12.20%
2000 3	1,800,167	51%	16,500	50%	10.37%	11.24%	11.67%	11.56%	11.24%
2000 4	2,244,833	52%	19,922	51%	9.31%	10.17%	10.66%	10.39%	10.17%
2001 1	5,834,443	52%	45,921	51%	5.49%	6.06%	6.73%	6.27%	6.06%
2001 2	8,438,898	53%	65,084	52%	5.04%	5.62%	6.44%	5.81%	5.62%
2001 3	7,527,453	50%	57,734	50%	5.48%	6.17%	6.96%	6.35%	6.17%
2001 4	11,826,282	50%	87,637	50%	4.43%	5.05%	5.89%	5.45%	5.05%
2002 1	10,395,551	49%	76,998	49%	4.71%	5.44%	6.41%	5.73%	5.44%
2002 2	10,888,558	47%	80,358	46%	5.05%	5.92%	7.06%	6.25%	5.92%
2002 3	17,827,570	49%	124,631	49%	4.10%	4.89%	6.04%	5.44%	4.89%
2002 4	25,563,653	50%	172,257	50%	3.63%	4.41%	5.57%	5.17%	4.41%
2003 1	25,369,849	51%	168,196	51%	3.61%	4.47%	5.71%	5.58%	4.47%
2003 2	34,533,311	51%	221,225	51%	3.48%	4.40%	5.74%	6.07%	4.40%
2003 3	33,991,443	47%	216,445	49%	3.92%	5.07%	6.45%	6.99%	5.07%
2003 4	20,345,652	39%	131,287	41%	5.15%	6.83%	8.44%	8.48%	6.83%
2004 1	22,986,818	37%	139,650	40%	5.64%	7.69%	9.64%	10.27%	7.69%
2004 2	27,135,007	33%	161,797	36%	6.42%	9.03%	11.29%	11.91%	9.03%
2004 3	24,551,812	28%	142,506	31%	8.42%	12.24%	14.58%	14.94%	12.24%
2004 4	26,505,813	25%	142,820	29%	10.22%	15.41%	17.97%	19.55%	15.41%

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Exhibit 2
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United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
All Loans
Ultimate Default Rate Selections
Evaluation as of 03/31/2012

Book Year	Original Loan Amount ($000s)	Percent of loans that are Qualified Mortgages (Amount)	Original Loan Count	Percent QM (Count)	Cum. Default Rate as of 03/31/2012	LDF Method Default Rate	Indicated Ultimate Unadjusted BF Default Rate	Indicated Ultimate Adjusted BF Default Rate	Selected Ultimate Default Rate
2005 1	26,273,959	24%	135,002	28%	12.02%	18.86%	20.99%	22.82%	22.82%
2005 2	40,668,737	21%	191,910	26%	14.66%	24.04%	26.10%	28.62%	28.62%
2005 3	48,439,563	22%	219,159	27%	17.20%	29.56%	30.10%	32.63%	32.63%
2005 4	41,438,093	19%	182,415	24%	20.68%	37.44%	36.44%	37.67%	37.67%
2006 1	38,243,128	17%	166,643	22%	22.10%	42.35%	40.08%	41.01%	41.01%
2006 2	47,781,799	17%	208,784	21%	20.92%	42.65%	40.29%	40.23%	40.23%
2006 3	47,797,681	18%	213,740	21%	20.70%	45.18%	41.72%	40.37%	40.37%
2006 4	50,998,310	19%	221,985	22%	21.07%	49.56%	43.09%	42.63%	42.63%
2007 1	54,503,199	19%	235,067	22%	19.79%	50.52%	44.14%	44.78%	44.78%
2007 2	73,546,025	22%	328,919	24%	17.89%	49.99%	41.25%	40.37%	40.37%
2007 3	59,052,588	25%	270,302	27%	15.82%	48.79%	38.78%	35.87%	35.87%
2007 4	52,962,735	35%	241,225	36%	14.25%	49.03%	34.82%	31.88%	31.88%
2008 1	48,159,892	45%	215,990	46%	9.72%	37.73%	27.17%	25.25%	25.25%
2008 2	40,110,502	54%	183,927	55%	6.04%	26.79%	21.94%	18.88%	18.88%
2008 3	28,823,982	49%	135,285	49%	4.50%	23.14%	21.85%	15.26%	15.26%
2008 4	22,005,413	57%	104,383	55%	3.04%	18.47%	20.09%	15.54%	15.54%
2009 1	20,549,779	69%	94,543	66%	2.26%	16.53%	14.03%	14.53%	14.53%
2009 2	28,964,725	59%	128,748	57%	1.40%	12.63%	13.74%	15.09%	15.09%
2009 3	28,147,816	45%	125,941	42%	1.03%	11.68%	16.04%	16.85%	16.85%
2009 4	29,066,803	44%	128,809	41%	0.67%	9.89%	16.20%	16.99%	16.99%
2010 1	24,592,015	41%	108,373	38%	0.60%	12.06%	17.11%	17.68%	17.68%
2010 2	24,195,057	42%	108,889	40%	0.42%	11.95%	16.46%	16.56%	16.56%
2010 3	33,081,277	41%	144,347	39%	0.26%	11.21%	15.27%	15.77%	15.77%
2010 4	45,191,533	45%	194,636	45%	0.16%	11.35%	13.93%	14.43%	14.43%
2011 1	26,744,387	40%	118,853	40%	0.27%	35.47%	17.15%	17.27%	17.27%
2011 2	23,142,935	44%	104,753	43%	0.14%	39.07%	15.74%	15.59%	15.59%
2011 3	27,370,748	52%	122,813	51%	0.02%	14.33%	12.43%	12.43%	12.43%
2011 4	27,592,861	56%	124,669	54%	0.00%	2.08%	11.18%	11.22%	11.22%
Total	1,401,272,530	36%	7,042,718	38%	9.67%	25.83%	23.56%	23.29%	22.89%

Average 16.68%
Average x H/L 16.37%
Avg L5 Years 20.61%

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Exhibit 3
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United Guaranty Corporation
Capital Analysis using CoreLogic Servicing Database
Loss Development Factors
QM Loans Only

Development Quarter

	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21
Book Year Dollars																				
Ave	8.25	3.70	2.51	1.92	1.71	1.72	1.48	1.42	1.40	1.31	1.25	1.23	1.19	1.16	1.15	1.14	1.11	1.10	1.10	1.09
Ave x H/L	6.32	3.46	2.42	1.91	1.69	1.65	1.46	1.41	1.34	1.30	1.25	1.22	1.19	1.16	1.15	1.13	1.11	1.10	1.09	1.09
WA	1.95	2.10	2.06	1.92	1.71	1.55	1.44	1.41	1.36	1.32	1.25	1.20	1.17	1.16	1.13	1.13	1.13	1.11	1.10	1.10
Ave '04-'11	7.77	3.65	2.58	1.88	1.68	1.53	1.41	1.36	1.32	1.28	1.23	1.21	1.18	1.15	1.15	1.14	1.13	1.11	1.11	1.11
Ave x H/L '04-'11	4.67	3.33	2.45	1.87	1.68	1.52	1.40	1.36	1.31	1.27	1.22	1.20	1.17	1.15	1.15	1.14	1.13	1.11	1.11	1.11
WA '04-'11	1.79	1.97	2.06	1.97	1.73	1.59	1.47	1.44	1.38	1.34	1.26	1.21	1.17	1.15	1.14	1.14	1.14	1.12	1.12	1.12
Book Year Counts																				
Ave	5.77	3.20	2.50	1.99	1.71	1.67	1.49	1.44	1.40	1.33	1.28	1.23	1.20	1.16	1.15	1.13	1.12	1.10	1.09	1.09
Ave x H/L	4.95	3.09	2.38	1.94	1.69	1.58	1.47	1.41	1.35	1.31	1.27	1.22	1.19	1.16	1.15	1.13	1.12	1.10	1.09	1.09
WA	1.91	2.03	2.00	1.91	1.69	1.54	1.43	1.39	1.35	1.31	1.25	1.20	1.17	1.15	1.13	1.13	1.12	1.10	1.10	1.09
Ave '04-'11	5.10	3.22	2.54	1.90	1.69	1.53	1.41	1.36	1.32	1.28	1.23	1.21	1.17	1.15	1.15	1.13	1.13	1.11	1.11	1.10
Ave x H/L '04-'11	3.68	3.06	2.37	1.90	1.68	1.51	1.40	1.35	1.31	1.27	1.22	1.20	1.17	1.15	1.15	1.13	1.13	1.11	1.11	1.10
WA '04-'11	1.73	1.87	1.96	1.95	1.72	1.58	1.46	1.42	1.37	1.33	1.26	1.21	1.17	1.15	1.14	1.14	1.14	1.12	1.12	1.12
Selection:	18.74	5.26	3.13	2.35	1.97	1.74	1.59	1.48	1.40	1.34	1.30	1.26	1.23	1.20	1.18	1.16	1.14	1.13	1.12	1.10

Development Quarter

	21-22	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32	32-33	33-34	34-35	35-36	36-37	37-38	38-39	39-40	40-41
Book Year Dollars																				
Ave	1.08	1.07	1.07	1.06	1.06	1.05	1.05	1.05	1.04	1.03	1.03	1.03	1.02	1.02	1.02	1.01	1.01	1.01	1.01	1.01
Ave x H/L	1.07	1.07	1.07	1.06	1.05	1.05	1.05	1.04	1.04	1.03	1.03	1.03	1.02	1.02	1.02	1.01	1.01	1.01	1.01	1.01
WA	1.09	1.08	1.08	1.07	1.07	1.06	1.06	1.05	1.05	1.05	1.04	1.04	1.03	1.03	1.02	1.02	1.02	1.01	1.01	1.01
Ave '04-'11	1.10	1.09	1.09	1.08	1.09	1.08	1.07	1.07	1.06	1.06	1.04	1.00								
Ave x H/L '04-'11	1.10	1.10	1.10	1.09	1.09	1.09	1.08	1.08	1.07	1.08										
WA '04-'11	1.11	1.10	1.11	1.10	1.10	1.09	1.09	1.09	1.08	1.09	1.09									
Book Year Counts																				
Ave	1.08	1.07	1.06	1.06	1.06	1.05	1.05	1.04	1.04	1.03	1.03	1.03	1.02	1.02	1.02	1.02	1.01	1.01	1.01	1.01
Ave x H/L	1.08	1.07	1.07	1.06	1.05	1.05	1.05	1.04	1.04	1.03	1.03	1.03	1.02	1.02	1.02	1.02	1.01	1.01	1.01	1.01
WA	1.08	1.07	1.07	1.06	1.06	1.06	1.05	1.05	1.04	1.04	1.04	1.04	1.03	1.03	1.02	1.02	1.02	1.01	1.01	1.01
Ave '04-'11	1.10	1.09	1.08	1.08	1.08	1.08	1.07	1.06	1.06	1.06	1.04	1.00								
Ave x H/L '04-'11	1.10	1.09	1.09	1.08	1.09	1.08	1.07	1.07	1.07	1.07										
WA '04-'11	1.11	1.10	1.10	1.09	1.09	1.09	1.08	1.08	1.08	1.09	1.08									
Selection:	1.09	1.09	1.08	1.07	1.06	1.06	1.05	1.05	1.04	1.04	1.04	1.03	1.03	1.03	1.03	1.02	1.02	1.02	1.02	1.02

Development Quarter

	41-42	42-43	43-44	44-45	45-46	46-47	47-48	48-49	49-50	50-51	51-52	52-53	53-54	54-55	55-56	56-57	57-58	58-59
Book Year Dollars																		
Ave	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.00						
Ave x H/L	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.02	1.01	1.00						
WA	1.01	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.02	1.02	1.01	1.00					
Ave '04-'11												1.01	1.00					
Ave x H/L '04-'11												1.01	1.00					
WA '04-'11												1.01						
Selection:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Book Year Counts																		
Ave	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.02	1.01	1.01	1.00					
Ave x H/L	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.02	1.01	1.01	1.00					
WA	1.01	1.02	1.01	1.02	1.01	1.01	1.01	1.01	1.01	1.02	1.02	1.01	1.00					
Ave '04-'11																		
Ave x H/L '04-'11																		
WA '04-'11																		
Selection:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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Exhibit 3
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United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
QM Loans Only
Paid LDF-Method

	A	B	C = A * B
Book Year	Cumulative Default Rate as of 03/31/2012	LDF	Indicated Ultimate Default Rate
1998 4	3.08%	1.038	3.19%
1999 1	3.00%	1.042	3.13%
1999 2	3.76%	1.047	3.94%
1999 3	4.19%	1.053	4.41%
1999 4	5.83%	1.059	6.17%
2000 1	6.51%	1.066	6.94%
2000 2	7.87%	1.073	8.45%
2000 3	6.90%	1.082	7.46%
2000 4	6.46%	1.091	7.05%
2001 1	3.85%	1.102	4.24%
2001 2	3.28%	1.114	3.66%
2001 3	3.69%	1.127	4.15%
2001 4	3.04%	1.142	3.48%
2002 1	3.10%	1.158	3.59%
2002 2	3.03%	1.176	3.56%
2002 3	2.28%	1.197	2.72%
2002 4	2.16%	1.219	2.64%
2003 1	2.16%	1.245	2.69%
2003 2	2.01%	1.274	2.56%
2003 3	2.07%	1.306	2.71%
2003 4	2.65%	1.342	3.55%
2004 1	2.81%	1.383	3.89%
2004 2	2.64%	1.429	3.77%
2004 3	3.34%	1.481	4.94%
2004 4	4.02%	1.541	6.19%

Exhibit 3
Page 3

United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
QM Loans Only
Paid LDF-Method

Book Year	A Cumulative Default Rate as of 03/31/2012	B LDF	C = A * B Indicated Ultimate Default Rate
2005 1	4.43%	1.609	7.13%
2005 2	5.09%	1.687	8.58%
2005 3	5.68%	1.776	10.10%
2005 4	6.89%	1.880	12.95%
2006 1	7.91%	2.000	15.81%
2006 2	7.77%	2.141	16.65%
2006 3	7.27%	2.307	16.77%
2006 4	6.97%	2.504	17.45%
2007 1	7.77%	2.740	21.28%
2007 2	7.39%	3.026	22.34%
2007 3	8.09%	3.374	27.28%
2007 4	8.86%	3.806	33.73%
2008 1	5.86%	4.348	25.48%
2008 2	3.76%	5.038	18.96%
2008 3	2.78%	5.935	16.52%
2008 4	1.66%	7.123	11.80%
2009 1	0.89%	8.738	7.82%
2009 2	0.46%	10.993	5.03%
2009 3	0.35%	14.250	4.97%
2009 4	0.19%	19.146	3.55%
2010 1	0.12%	26.871	3.23%
2010 2	0.10%	39.810	3.81%
2010 3	0.05%	63.179	3.21%
2010 4	0.05%	109.748	5.02%
2011 1	0.17%	215.756	37.45%
2011 2	0.09%	507.642	43.99%
2011 3	0.01%	1587.455	16.24%
2011 4	0.00%	8348.026	0.00%

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Exhibit 3
Page 4

United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
QM Loans Only
Unadjusted BF Method

	A	B	C = A * (1-1/LDF)	D = B + C
Book Year	Unadjusted A Priori Ultimate Default Rate	Cumulative Default Rate as of 03/31/2012	Indicated Future Rate as of 03/31/2012	Unadjusted BF Indicated Ultimate Default Rate
1998 4	2.98%	3.08%	0.11%	3.19%
1999 1	3.15%	3.00%	0.13%	3.13%
1999 2	3.69%	3.76%	0.17%	3.93%
1999 3	4.23%	4.19%	0.21%	4.40%
1999 4	4.52%	5.83%	0.25%	6.08%
2000 1	4.59%	6.51%	0.28%	6.80%
2000 2	4.71%	7.87%	0.32%	8.19%
2000 3	5.03%	6.90%	0.38%	7.28%
2000 4	5.23%	6.46%	0.44%	6.90%
2001 1	4.94%	3.85%	0.46%	4.31%
2001 2	5.33%	3.28%	0.54%	3.83%
2001 3	5.33%	3.69%	0.60%	4.29%
2001 4	4.89%	3.04%	0.61%	3.65%
2002 1	5.13%	3.10%	0.70%	3.80%
2002 2	5.54%	3.03%	0.83%	3.86%
2002 3	5.53%	2.28%	0.91%	3.18%
2002 4	5.59%	2.16%	1.01%	3.17%
2003 1	5.88%	2.16%	1.16%	3.32%
2003 2	6.10%	2.01%	1.31%	3.32%
2003 3	6.13%	2.07%	1.44%	3.51%
2003 4	6.95%	2.65%	1.77%	4.42%
2004 1	7.41%	2.81%	2.05%	4.87%
2004 2	7.84%	2.64%	2.35%	4.99%
2004 3	8.94%	3.34%	2.90%	6.24%
2004 4	9.94%	4.02%	3.49%	7.51%

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Exhibit 3
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United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
QM Loans Only
Unadjusted BF Method

	A	B	C = A * (1-1/LDF)	D = B + C
Book Year	Unadjusted A Priori Ultimate Default Rate	Cumulative Default Rate as of 03/31/2012	Indicated Future Rate as of 03/31/2012	Unadjusted BF Indicated Ultimate Default Rate
2005 1	10.50%	4.43%	3.97%	8.40%
2005 2	11.20%	5.09%	4.56%	9.65%
2005 3	12.01%	5.68%	5.25%	10.93%
2005 4	13.62%	6.89%	6.38%	13.27%
2006 1	15.18%	7.91%	7.59%	15.49%
2006 2	15.36%	7.77%	8.19%	15.96%
2006 3	15.22%	7.27%	8.62%	15.89%
2006 4	15.56%	6.97%	9.35%	16.31%
2007 1	16.23%	7.77%	10.31%	18.07%
2007 2	15.79%	7.39%	10.57%	17.96%
2007 3	15.72%	8.09%	11.06%	19.15%
2007 4	14.51%	8.86%	10.70%	19.56%
2008 1	12.00%	5.86%	9.24%	15.10%
2008 2	10.75%	3.76%	8.62%	12.38%
2008 3	10.28%	2.78%	8.55%	11.33%
2008 4	9.61%	1.66%	8.26%	9.92%
2009 1	6.97%	0.89%	6.17%	7.07%
2009 2	5.87%	0.46%	5.34%	5.80%
2009 3	5.41%	0.35%	5.03%	5.38%
2009 4	5.10%	0.19%	4.84%	5.02%
2010 1	5.23%	0.12%	5.03%	5.15%
2010 2	4.58%	0.10%	4.47%	4.56%
2010 3	4.97%	0.05%	4.89%	4.94%
2010 4	4.91%	0.05%	4.87%	4.91%
2011 1	4.26%	0.17%	4.25%	4.42%
2011 2	3.73%	0.09%	3.72%	3.81%
2011 3	3.45%	0.01%	3.45%	3.46%
2011 4	3.32%	0.00%	3.32%	3.32%

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Exhibit 3
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United Guaranty Corporation
Capital Analysis using CoreLogic Servicing Database
QM Loans Only
Conditional Prepayment Rate

Development Quarters

Amount Based	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Average	7.4%	9.1%	11.3%	13.2%	14.1%	14.8%	15.9%	16.6%	16.5%	16.6%	17.0%	16.5%	16.3%	16.8%	17.0%
Average x H/L	7.1%	8.7%	10.9%	12.7%	13.6%	14.4%	15.4%	16.1%	15.9%	16.0%	16.4%	15.8%	15.5%	16.2%	16.6%
Weighted Average	8.5%	10.1%	11.5%	12.8%	14.4%	14.4%	14.6%	15.5%	15.7%	16.0%	15.8%	15.0%	15.1%	16.2%	16.1%

Count Based	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Average	6.6%	8.2%	10.2%	11.9%	12.7%	13.4%	14.4%	15.1%	15.1%	15.3%	15.7%	15.3%	15.2%	15.7%	15.8%
Average x H/L	6.4%	7.8%	9.8%	11.4%	12.2%	13.0%	13.9%	14.6%	14.5%	14.6%	15.1%	14.5%	14.4%	15.1%	15.4%
Weighted Average	8.1%	9.8%	11.3%	12.9%	14.5%	14.5%	14.5%	15.2%	15.1%	15.0%	15.0%	14.4%	14.3%	15.1%	15.0%

Amount Based	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Average	16.1%	15.4%	15.0%	14.7%	14.3%	13.9%	13.1%	13.5%	13.4%	13.0%	13.5%	13.9%	13.9%	12.6%	12.5%
Average x H/L	15.8%	15.1%	14.6%	14.4%	13.8%	13.6%	12.8%	13.2%	13.3%	12.9%	13.4%	13.7%	13.8%	12.5%	12.4%
Weighted Average	15.3%	14.7%	14.0%	13.8%	13.7%	13.2%	13.2%	14.3%	14.7%	14.8%	14.9%	16.0%	17.3%	17.2%	16.9%

Count Based	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Average	15.1%	14.4%	14.0%	13.8%	13.4%	13.0%	12.2%	12.5%	12.3%	11.9%	12.2%	12.6%	12.5%	11.5%	11.3%
Average x H/L	14.9%	14.1%	13.6%	13.5%	13.0%	12.7%	12.0%	12.3%	12.3%	11.8%	12.1%	12.4%	12.4%	11.4%	11.2%
Weighted Average	14.4%	13.8%	13.1%	12.8%	12.7%	12.2%	12.0%	12.7%	13.1%	13.1%	13.3%	14.2%	15.2%	15.1%	14.9%

Amount Based	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Average	12.7%	12.2%	11.4%	10.5%	10.9%	10.0%	9.9%	9.2%	9.5%	10.2%	10.1%	10.1%	11.8%	10.3%	11.2%
Average x H/L	12.5%	12.1%	11.3%	10.4%	10.8%	9.9%	9.9%	9.0%	9.0%	10.2%	9.8%	8.9%	10.0%	9.3%	10.3%
Weighted Average	17.2%	18.4%	18.6%	17.4%	17.2%	15.4%	14.0%	12.4%	14.0%	13.8%	13.9%	14.7%	14.8%	12.7%	14.5%

Count Based	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Average	11.4%	11.0%	10.3%	9.5%	9.8%	9.3%	9.0%	8.6%	8.9%	9.4%	9.1%	9.5%	11.1%	9.8%	10.3%
Average x H/L	11.3%	10.9%	10.2%	9.4%	9.7%	9.1%	8.9%	8.4%	8.3%	9.1%	8.5%	8.0%	9.0%	8.6%	8.9%
Weighted Average	15.3%	16.3%	16.2%	15.0%	15.0%	13.9%	12.5%	11.6%	12.9%	12.5%	12.7%	13.7%	13.6%	12.2%	13.1%

Amount Based	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Average	10.8%	12.8%	11.9%	11.7%	13.3%	13.5%	8.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Average x H/L	10.1%	12.1%	12.2%	13.1%	14.2%	16.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Weighted Average	13.1%	16.0%	15.8%	16.5%	19.4%	22.5%	16.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Count Based	46	47	48	49	50	51	52
Average	9.6%	11.8%	11.2%	10.7%	12.3%	13.6%	7.2%
Average x H/L	8.8%	10.7%	11.2%	11.8%	12.2%	14.0%	
Weighted Average	11.8%	14.9%	14.9%	15.1%	18.2%	23.0%	15.1%

	Dollar Based CPR	Count Based CPR
Average of Wtd Average 9-36	15.7%	14.2%

Selected Long-Term CPR	16%
Selected Long-Term PSA	267%

St Dev CPR / CV	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
St Dev CPR	13%	12%	13%	12%	11%	9%	8%	6%	5%	5%	6%	6%	6%	5%	5%
CV	80%	75%	85%	76%	73%	63%	61%	41%	33%	33%	33%	34%	30%	32%	35%

Average of Wtd Average 9-36	53%
Selected CV	40%

Exhibit 3
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United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
QM Loans Only
Adjusted Paid BF Method

	A	B	C	D = B / C	E = A * D	F	G = E*(1-1/LDF)	H = F + G
Book Year	A Priori Ultimate	Actual Percent In-force as of 03/31/2012	Expected Percent In-force as of 03/31/2012	Actual to Expected In-force as of 03/31/2012	Adjusted A Priori Ultimate	Cumulative Default Rate as of 03/31/2012	Indicated Future Default Rate as of 03/31/2012	Adjusted BF Indicated Ultimate Default Rate
1998 4	2.98%	13.87%	11.80%	117.53%	3.50%	3.08%	0.13%	3.20%
1999 1	3.15%	10.90%	12.33%	88.41%	2.79%	3.00%	0.11%	3.12%
1999 2	3.69%	10.46%	12.88%	81.21%	3.00%	3.76%	0.14%	3.90%
1999 3	4.23%	8.43%	13.45%	62.67%	2.65%	4.19%	0.13%	4.32%
1999 4	4.52%	9.52%	14.05%	67.76%	3.06%	5.83%	0.17%	6.00%
2000 1	4.59%	10.71%	14.68%	72.96%	3.35%	6.51%	0.21%	6.72%
2000 2	4.71%	10.88%	15.33%	70.99%	3.34%	7.87%	0.23%	8.10%
2000 3	5.03%	9.10%	16.01%	56.84%	2.86%	6.90%	0.22%	7.12%
2000 4	5.23%	9.54%	16.73%	57.01%	2.98%	6.46%	0.25%	6.71%
2001 1	4.94%	9.20%	17.47%	52.66%	2.60%	3.85%	0.24%	4.09%
2001 2	5.33%	7.60%	18.25%	41.62%	2.22%	3.28%	0.23%	3.51%
2001 3	5.33%	8.93%	19.07%	46.82%	2.49%	3.69%	0.28%	3.97%
2001 4	4.89%	12.36%	19.91%	62.05%	3.03%	3.04%	0.38%	3.42%
2002 1	5.13%	11.40%	20.80%	54.82%	2.81%	3.10%	0.38%	3.48%
2002 2	5.54%	11.27%	21.73%	51.86%	2.87%	3.03%	0.43%	3.46%
2002 3	5.53%	13.91%	22.70%	61.27%	3.39%	2.28%	0.56%	2.83%
2002 4	5.59%	17.49%	23.71%	73.78%	4.12%	2.16%	0.74%	2.91%
2003 1	5.88%	21.91%	24.76%	88.48%	5.21%	2.16%	1.02%	3.18%
2003 2	6.10%	29.46%	25.87%	113.89%	6.95%	2.01%	1.49%	3.50%
2003 3	6.13%	34.07%	27.02%	126.11%	7.73%	2.07%	1.81%	3.88%
2003 4	6.95%	29.68%	28.22%	105.17%	7.31%	2.65%	1.86%	4.51%
2004 1	7.41%	34.95%	29.48%	118.54%	8.79%	2.81%	2.43%	5.25%
2004 2	7.84%	34.62%	30.79%	112.43%	8.81%	2.64%	2.65%	5.29%
2004 3	8.94%	34.09%	32.17%	105.97%	9.47%	3.34%	3.08%	6.41%
2004 4	9.94%	44.23%	33.60%	131.63%	13.09%	4.02%	4.59%	8.61%

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Exhibit 3
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United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
QM Loans Only
Adjusted Paid BF Method

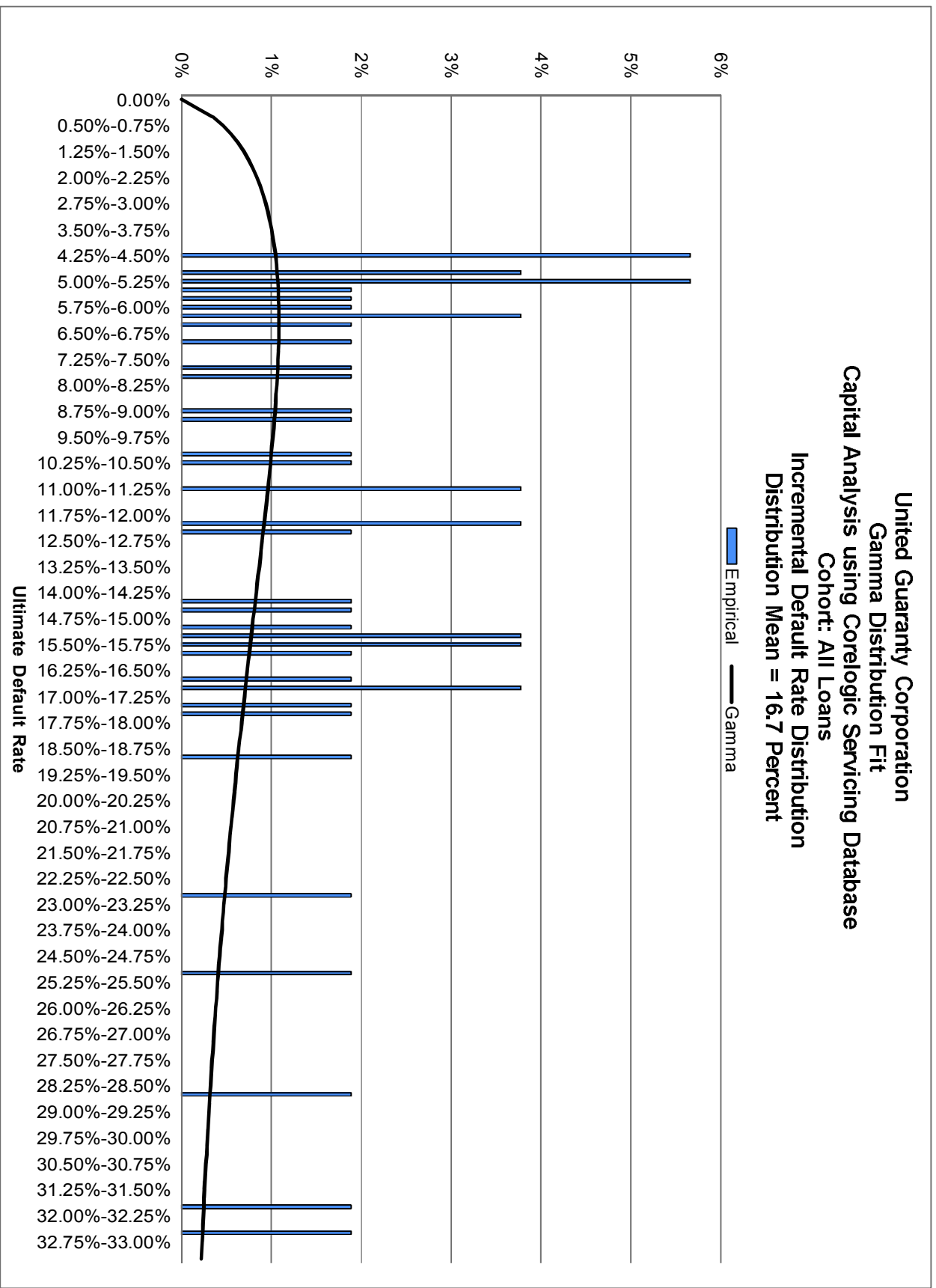|	A	B	C	D = B / C	E = A * D	F	G = E*(1-1/LDF)	H = F + G
Book Year	A Priori Ultimate	Actual Percent In-force as of 03/31/2012	Expected Percent In-force as of 03/31/2012	Actual to Expected In-force as of 03/31/2012	Adjusted A Priori Ultimate	Cumulative Default Rate as of 03/31/2012	Indicated Future Default Rate as of 03/31/2012	Adjusted BF Indicated Ultimate Default Rate
2005 1	10.50%	45.87%	35.10%	130.71%	13.72%	4.43%	5.19%	9.62%
2005 2	11.20%	47.31%	36.66%	129.05%	14.45%	5.09%	5.88%	10.97%
2005 3	12.01%	49.79%	38.29%	130.01%	15.61%	5.68%	6.82%	12.51%
2005 4	13.62%	47.47%	40.00%	118.68%	16.17%	6.89%	7.57%	14.46%
2006 1	15.18%	47.27%	41.78%	113.12%	17.17%	7.91%	8.59%	16.49%
2006 2	15.36%	44.62%	43.64%	102.23%	15.70%	7.77%	8.37%	16.14%
2006 3	15.22%	42.22%	45.59%	92.61%	14.10%	7.27%	7.99%	15.25%
2006 4	15.56%	48.77%	47.62%	102.41%	15.93%	6.97%	9.57%	16.54%
2007 1	16.23%	51.08%	49.74%	102.68%	16.67%	7.77%	10.59%	18.35%
2007 2	15.79%	51.11%	51.96%	98.37%	15.53%	7.39%	10.40%	17.78%
2007 3	15.72%	48.47%	54.27%	89.32%	14.04%	8.09%	9.88%	17.97%
2007 4	14.51%	49.29%	56.69%	86.95%	12.62%	8.86%	9.30%	18.16%
2008 1	12.00%	54.89%	59.21%	92.70%	11.12%	5.86%	8.56%	14.43%
2008 2	10.75%	51.99%	61.85%	84.05%	9.04%	3.76%	7.24%	11.01%
2008 3	10.28%	42.04%	64.61%	65.07%	6.69%	2.78%	5.56%	8.35%
2008 4	9.61%	49.82%	67.49%	73.83%	7.10%	1.66%	6.10%	7.76%
2009 1	6.97%	73.43%	70.49%	104.16%	7.26%	0.89%	6.43%	7.33%
2009 2	5.87%	81.06%	73.63%	110.09%	6.47%	0.46%	5.88%	6.34%
2009 3	5.41%	78.19%	76.91%	101.66%	5.50%	0.35%	5.11%	5.46%
2009 4	5.10%	81.12%	80.34%	100.97%	5.15%	0.19%	4.88%	5.07%
2010 1	5.23%	82.36%	83.79%	98.29%	5.14%	0.12%	4.95%	5.07%
2010 2	4.58%	83.23%	86.97%	95.70%	4.39%	0.10%	4.28%	4.37%
2010 3	4.97%	91.06%	89.87%	101.32%	5.03%	0.05%	4.95%	5.00%
2010 4	4.91%	95.03%	92.44%	102.80%	5.05%	0.05%	5.00%	5.05%
2011 1	4.26%	92.87%	94.66%	98.11%	4.18%	0.17%	4.16%	4.34%
2011 2	3.73%	93.38%	96.52%	96.75%	3.61%	0.09%	3.60%	3.69%
2011 3	3.45%	97.67%	97.99%	99.68%	3.44%	0.01%	3.44%	3.45%
2011 4	3.32%	99.54%	99.06%	100.49%	3.34%	0.00%	3.34%	3.34%

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United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
QM Loans Only
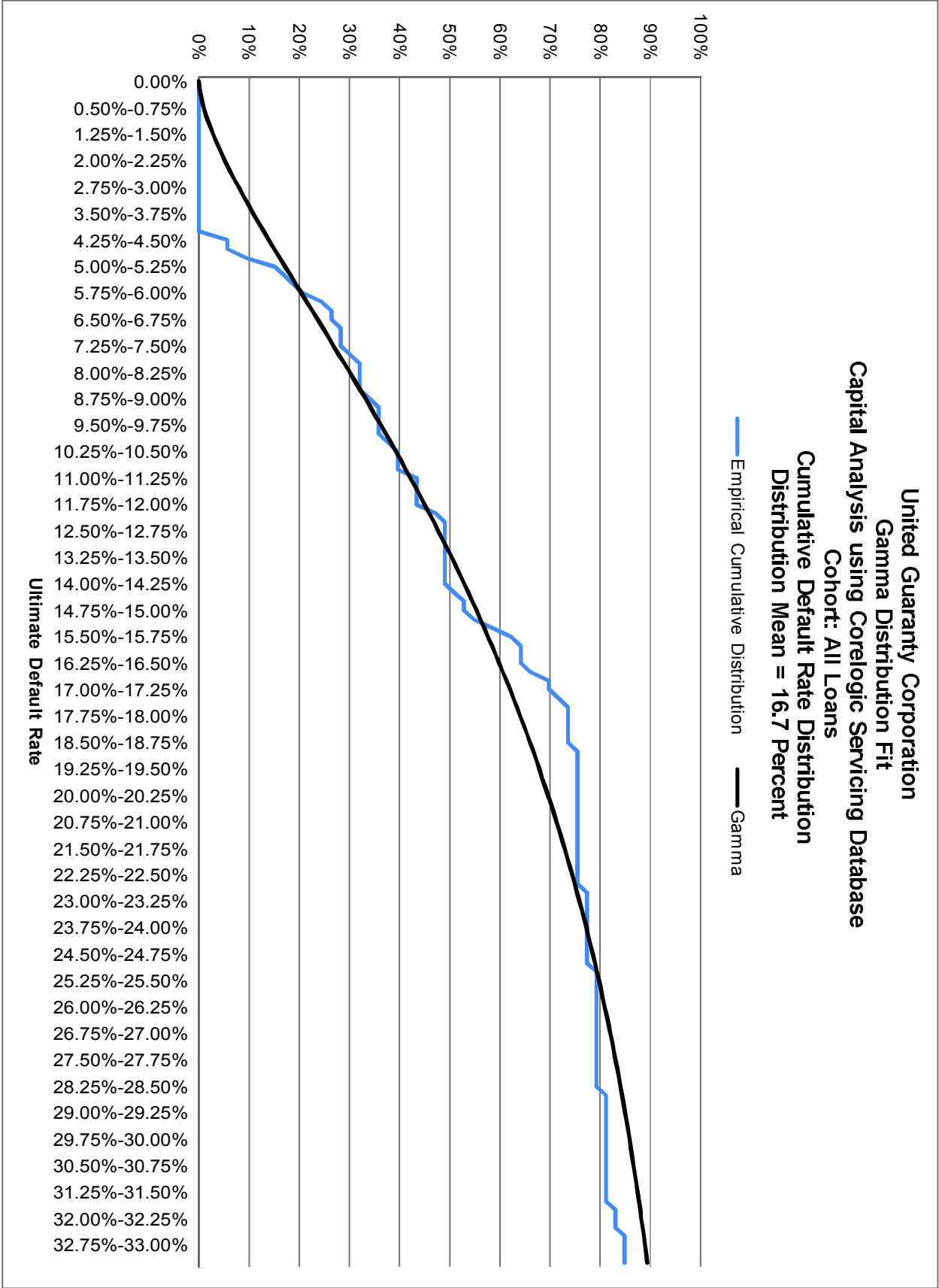Ultimate Default Rate Selections
Evaluation as of 03/31/2012

Book Year	Original Loan Amount ($000s)	Percent of loans that are Qualified Mortgages (Amount)	Original Loan Count	Percent QM (Count)	Cum. Default Rate as of 03/31/2012	LDF Method Default Rate	Indicated Ultimate Unadjusted BF Default Rate	Indicated Ultimate Adjusted BF Default Rate	Selected Ultimate Default Rate
1998 4	2,732,034	100%	22,851	100%	3.08%	3.19%	3.19%	3.20%	3.19%
1999 1	2,464,921	100%	20,242	100%	3.00%	3.13%	3.13%	3.12%	3.13%
1999 2	2,232,712	100%	18,485	100%	3.76%	3.94%	3.93%	3.90%	3.94%
1999 3	1,541,201	100%	13,187	100%	4.19%	4.41%	4.40%	4.32%	4.41%
1999 4	1,049,562	100%	9,359	100%	5.83%	6.17%	6.08%	6.00%	6.17%
2000 1	594,673	100%	5,536	100%	6.51%	6.94%	6.80%	6.72%	6.94%
2000 2	659,442	100%	6,226	100%	7.87%	8.45%	8.19%	8.10%	8.45%
2000 3	922,617	100%	8,276	100%	6.90%	7.46%	7.28%	7.12%	7.46%
2000 4	1,173,765	100%	10,153	100%	6.46%	7.05%	6.90%	6.71%	7.05%
2001 1	3,030,121	100%	23,416	100%	3.85%	4.24%	4.31%	4.09%	4.24%
2001 2	4,511,614	100%	33,856	100%	3.28%	3.66%	3.83%	3.51%	3.66%
2001 3	3,751,412	100%	28,662	100%	3.69%	4.15%	4.29%	3.97%	4.15%
2001 4	5,872,753	100%	43,570	100%	3.04%	3.48%	3.65%	3.42%	3.48%
2002 1	5,108,902	100%	37,835	100%	3.10%	3.59%	3.80%	3.48%	3.59%
2002 2	5,065,121	100%	37,185	100%	3.03%	3.56%	3.86%	3.46%	3.56%
2002 3	8,726,207	100%	60,519	100%	2.28%	2.72%	3.18%	2.83%	2.72%
2002 4	12,831,226	100%	86,357	100%	2.16%	2.64%	3.17%	2.91%	2.64%
2003 1	12,871,674	100%	85,736	100%	2.16%	2.69%	3.32%	3.18%	2.69%
2003 2	17,496,587	100%	113,711	100%	2.01%	2.56%	3.32%	3.50%	2.56%
2003 3	16,080,073	100%	105,323	100%	2.07%	2.71%	3.51%	3.88%	2.71%
2003 4	7,969,892	100%	53,612	100%	2.65%	3.55%	4.42%	4.51%	3.55%
2004 1	8,543,585	100%	56,202	100%	2.81%	3.89%	4.87%	5.25%	3.89%
2004 2	8,951,480	100%	58,452	100%	2.64%	3.77%	4.99%	5.29%	3.77%
2004 3	6,791,680	100%	44,246	100%	3.34%	4.94%	6.24%	6.41%	4.94%
2004 4	6,593,991	100%	41,016	100%	4.02%	6.19%	7.51%	8.61%	6.19%

Exhibit 3
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United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
QM Loans Only
Ultimate Default Rate Selections
Evaluation as of 03/31/2012

Book Year	Original Loan Amount ($000s)	Percent of loans that are Qualified Mortgages (Amount)	Original Loan Count	Percent QM (Count)	Cum. Default Rate as of 03/31/2012	LDF Method Default Rate	Indicated Ultimate Unadjusted BF Default Rate	Indicated Ultimate Adjusted BF Default Rate	Selected Ultimate Default Rate
2005 1	6,392,548	100%	38,345	100%	4.43%	7.13%	8.40%	9.62%	9.62%
2005 2	8,696,218	100%	50,259	100%	5.09%	8.58%	9.65%	10.97%	10.97%
2005 3	10,749,097	100%	59,743	100%	5.68%	10.10%	10.93%	12.51%	12.51%
2005 4	7,866,798	100%	43,734	100%	6.89%	12.95%	13.27%	14.46%	14.46%
2006 1	6,617,219	100%	36,482	100%	7.91%	15.81%	15.49%	16.49%	16.49%
2006 2	8,000,315	100%	42,944	100%	7.77%	16.65%	15.96%	16.14%	16.14%
2006 3	8,567,663	100%	45,855	100%	7.27%	16.77%	15.89%	15.25%	15.25%
2006 4	9,457,489	100%	48,760	100%	6.97%	17.45%	16.31%	16.54%	16.54%
2007 1	10,566,419	100%	52,506	100%	7.77%	21.28%	18.07%	18.35%	18.35%
2007 2	16,215,588	100%	79,407	100%	7.39%	22.34%	17.96%	17.78%	17.78%
2007 3	14,745,176	100%	73,134	100%	8.09%	27.28%	19.15%	17.97%	17.97%
2007 4	18,524,466	100%	87,090	100%	8.86%	33.73%	19.56%	18.16%	18.16%
2008 1	21,646,510	100%	98,927	100%	5.86%	25.48%	15.10%	14.43%	14.43%
2008 2	21,735,600	100%	100,765	100%	3.76%	18.96%	12.38%	11.01%	11.01%
2008 3	14,180,982	100%	66,306	100%	2.78%	16.52%	11.33%	8.35%	8.35%
2008 4	12,434,001	100%	57,694	100%	1.66%	11.80%	9.92%	7.76%	7.76%
2009 1	14,189,257	100%	62,619	100%	0.89%	7.82%	7.07%	7.33%	7.33%
2009 2	17,133,840	100%	73,572	100%	0.46%	5.03%	5.80%	6.34%	6.34%
2009 3	12,716,120	100%	52,867	100%	0.35%	4.97%	5.38%	5.46%	5.46%
2009 4	12,925,881	100%	53,282	100%	0.19%	3.55%	5.02%	5.07%	5.07%
2010 1	10,044,831	100%	41,596	100%	0.12%	3.23%	5.15%	5.07%	5.07%
2010 2	10,149,633	100%	43,025	100%	0.10%	3.81%	4.56%	4.37%	4.37%
2010 3	13,441,125	100%	55,854	100%	0.05%	3.21%	4.94%	5.00%	5.00%
2010 4	20,557,354	100%	87,070	100%	0.05%	5.02%	4.91%	5.05%	5.05%
2011 1	10,680,775	100%	48,025	100%	0.17%	37.45%	4.42%	4.34%	4.34%
2011 2	10,076,550	100%	45,375	100%	0.09%	43.99%	3.81%	3.69%	3.69%
2011 3	14,301,147	100%	62,691	100%	0.01%	16.24%	3.46%	3.45%	3.45%
2011 4	15,323,035	100%	67,318	100%	0.00%	0.00%	3.32%	3.34%	3.34%
Total	505,502,887	100%	2,699,258	100%	3.22%	11.77%	8.47%	8.30%	8.10%

Average 7.42%
Average x H/L 7.30%
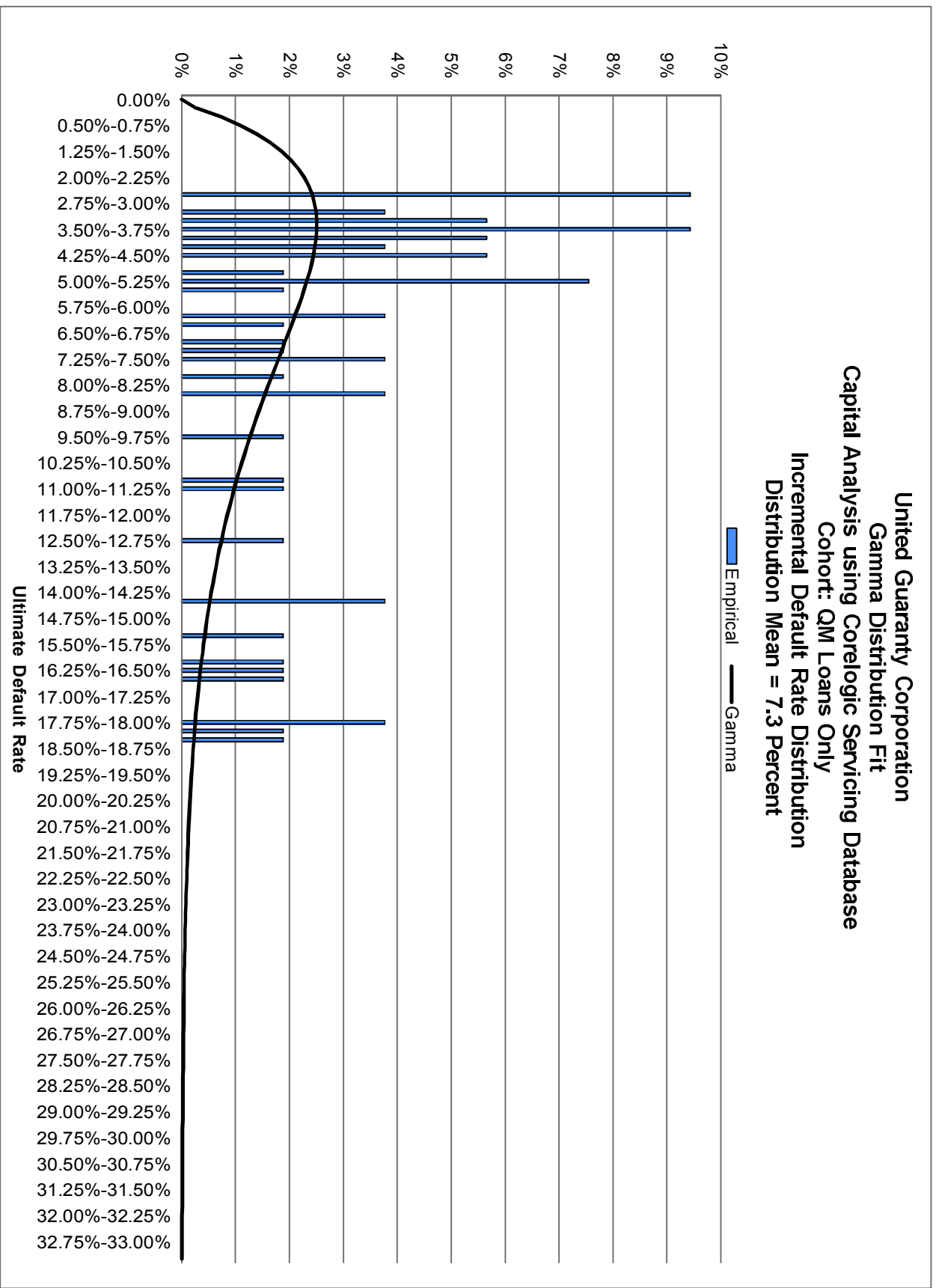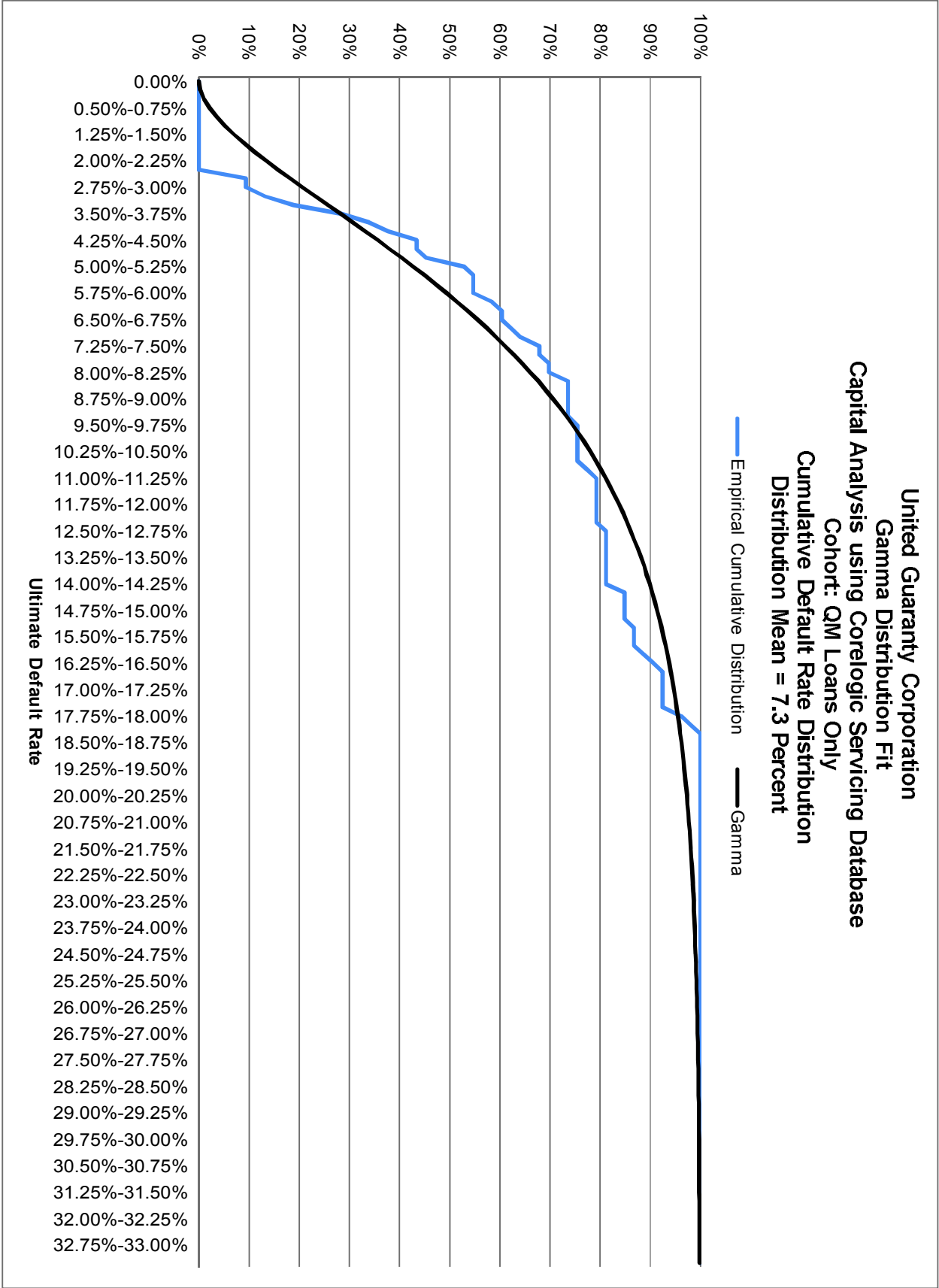Avg L5 Years 8.61%

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Exhibit 4
Page 1

United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
Ultimate Default Rate Distribution by for All Loans and QM Loans
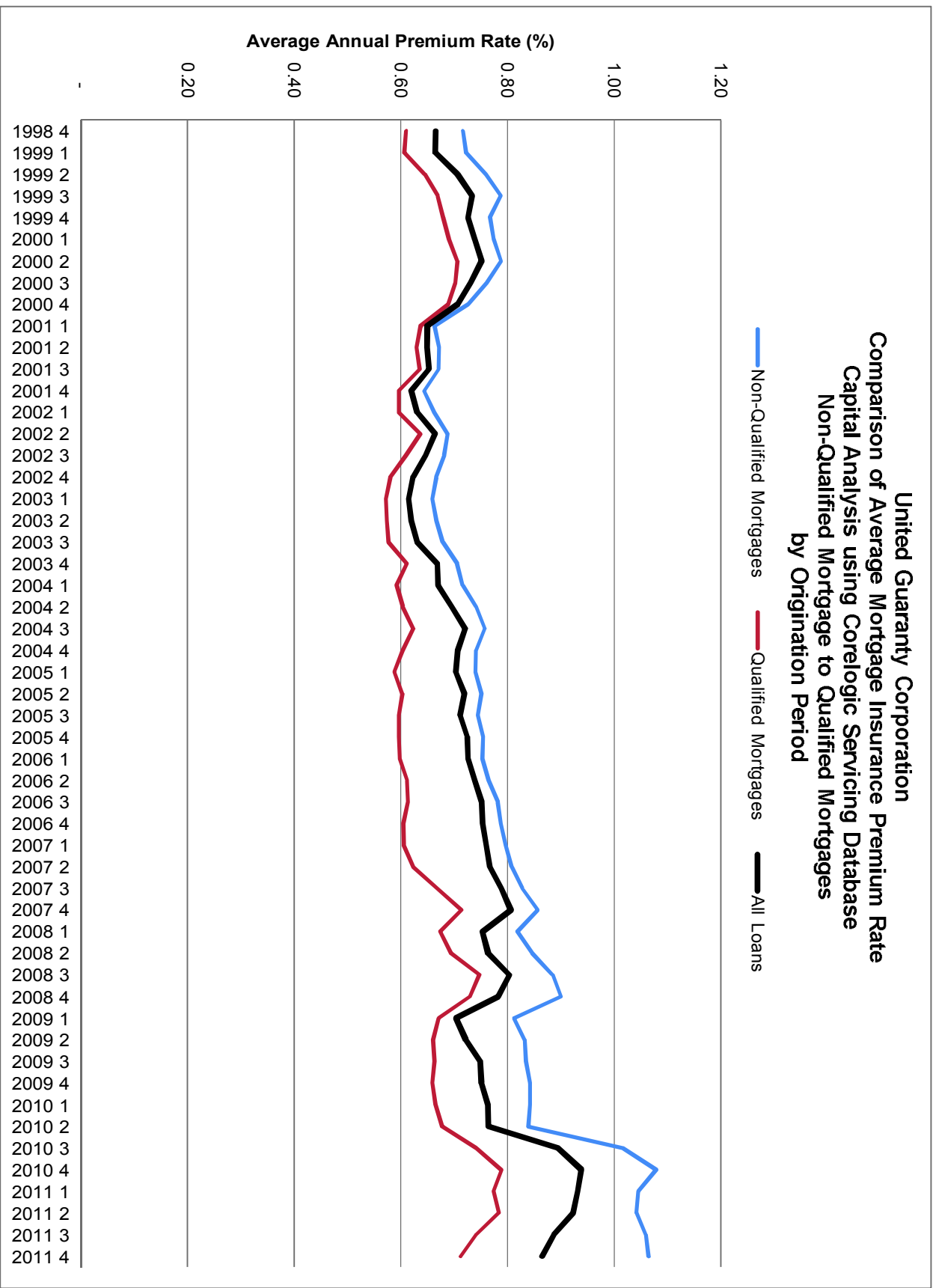Corelogic Servicing Data 1998-2012

Confidence Level	All Loans		QM Loans Only	
	Empirical	Gamma Fit	Empirical	Gamma Fit
10%	5.0%	3.5%	3.1%	1.9%
20%	5.9%	5.9%	3.6%	2.9%
30%	7.7%	8.2%	3.8%	3.9%
40%	11.2%	10.7%	4.4%	5.0%
50%	14.4%	13.4%	5.1%	6.1%
60%	15.5%	16.5%	6.3%	7.3%
70%	17.3%	20.4%	8.3%	8.9%
80%	28.6%	25.6%	12.5%	11.0%
90%	40.2%	34.2%	16.5%	14.3%
95%	41.0%	42.5%	18.0%	17.5%
99%	44.8%	61.2%	18.4%	24.6%

	Empirical	Gamma Fit	Empirical	Gamma Fit
Average Ultimate Default Rate or Distribution Mean	16.7%	16.7%	7.4%	7.3%
Standard Deviation	12.2%	13.2%	5.0%	5.3%
2007 Ultimate Default Rate	38.2%		18.1%	
2007 Ultimate Default Rate Percentile	88.7%	92.8%	96.2%	95.6%

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United Guaranty Corporation
Gamma Distribution Fit
Capital Analysis using Corelogic Servicing Database
Cohort: All Loans
Incremental Default Rate Distribution
Distribution Mean = 16.7 Percent

Empirical   Gamma

Ultimate Default Rate

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Exhibit 4
Page 2

United Guaranty Corporation
Gamma Distribution Fit
Capital Analysis using Corelogic Servicing Database
Cohort: All Loans
Cumulative Default Rate Distribution
Distribution Mean = 16.7 Percent

Empirical Cumulative Distribution
Gamma

Ultimate Default Rate

United Guaranty Corporation
Gamma Distribution Fit
Capital Analysis using Corelogic Servicing Database
Cohort: QM Loans Only
Incremental Default Rate Distribution
Distribution Mean = 7.3 Percent

Empirical ▬▬ Gamma

Ultimate Default Rate

Exhibit 4
Page 4

United Guaranty Corporation
Gamma Distribution Fit
Capital Analysis using Corelogic Servicing Database
Cohort: QM Loans Only
Cumulative Default Rate Distribution
Distribution Mean = 7.3 Percent

Empirical Cumulative Distribution   Gamma

Ultimate Default Rate

United Guaranty Corporation
Comparison of Average Mortgage Insurance Premium Rate
Capital Analysis using Corelogic Servicing Database
Non-Qualified Mortgage to Qualified Mortgages
by Origination Period

United Guaranty Corporation
Comparison of Average Mortgage Insurance Coverage Percent
Capital Analysis using Corelogic Servicing Database
Non-Qualified Mortgage to Qualified Mortgages
by Origination Period

Non-Qualified Mortgages — Qualified Mortgages — All Loans

Average Coverage Percent (%)

Exhibit 5
Page 2

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Exhibit 6
Page 1

United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
Risk to Capital Ratio Comparison: Qualified Mortgages
No Required Capital Over Contingency Reserve, No Expenses, No Investment Income, No Taxes
Single Book Analysis
($000's)

	Ultimate Default Rate		Loss Ratio		Contributed Capital		Risk to Capital Ratio	
Premium Rate	0.75%	0.70%	0.75%	0.70%	0.75%	0.70%	0.75%	0.70%
Coverage Percent	25%	25.0%	25%	25.0%	25%	25.0%	25%	25.0%
Original NIW	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Original Risk	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Confidence Level								
10%	1.9%	1.9%	17.6%	18.8%	0	0	NA	NA
20%	3.0%	3.0%	25.6%	27.5%	0	0	NA	NA
30%	4.0%	4.0%	32.5%	34.8%	0	0	NA	NA
40%	5.0%	5.0%	39.2%	42.0%	0	0	NA	NA
50%	6.1%	6.1%	46.3%	49.6%	0	0	NA	NA
60%	7.4%	7.4%	54.1%	57.9%	0	0	NA	NA
70%	9.0%	9.0%	63.4%	67.8%	0	0	NA	NA
80%	11.1%	11.1%	75.6%	80.8%	0	0	NA	NA
90%	14.4%	14.4%	95.0%	101.6%	0	5,067	NA	493.4
95%	17.5%	17.5%	113.3%	121.2%	47,263	71,236	52.9	35.1
97.5%	20.9%	20.9%	131.5%	140.8%	114,669	138,738	21.8	18.0
99.0%	24.7%	24.7%	152.2%	162.7%	200,877	223,519	12.4	11.2
99.5%	27.4%	27.4%	170.6%	182.5%	267,074	292,444	9.4	8.5
99.9%	34.9%	34.9%	209.5%	224.1%	435,668	464,215	5.7	5.4
Average	7.3%	7.3%	52.4%	56.1%	7,943	10,197	314.7	245.2
Percent of Trials Resulting in Zero Capital Contribution			92%	89%	92%	89%	92%	89%

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Exhibit 6
Page 2

United Guaranty Corporation
Capital Analysis using Corelogic Servicing Database
Risk to Capital Ratio Comparison: Qualified Mortgages
No Required Capital Over Contingency Reserve, 20% Expense Ratio, 3% Investment Yield, 35% Tax Rate
Multi Book Analysis
($000's)

	Ultimate Default Rate		Loss Ratio		Contributed Capital		Risk to Contributed Capital Ratio*		Risk to Capital Ratio**	
Premium Rate	0.75%	0.70%	0.75%	0.70%	0.75%	0.70%	0.75%	0.70%	0.75%	0.70%
Coverage Percent	25%	25.0%	25%	25.0%	25%	25.0%	25%	25.0%	25%	25.0%
Total NIW for All Books							150,000,000	150,000,000	150,000,000	150,000,000
Original Risk for All Books							37,500,000	37,500,000	37,500,000	37,500,000
Confidence Level										
10%	3.1%	3.1%	20.8%	22.3%	0	0	NA	NA	-	-
20%	4.1%	4.1%	26.9%	28.8%	0	0	NA	NA	-	-
30%	4.9%	4.9%	32.3%	34.5%	0	0	NA	NA	-	-
40%	5.8%	5.8%	37.3%	40.0%	0	0	NA	NA	-	-
50%	6.6%	6.6%	42.1%	45.1%	0	0	NA	NA	-	-
60%	7.6%	7.6%	47.4%	50.7%	0	0	NA	NA	-	-
70%	8.7%	8.7%	53.6%	57.4%	0	0	NA	NA	-	-
80%	10.1%	10.1%	61.8%	66.2%	0	0	NA	NA	-	-
90%	12.4%	12.4%	73.7%	78.9%	0	0	NA	NA	-	-
95%	14.5%	14.5%	85.4%	91.5%	0	0	NA	NA	-	-
97.5%	16.6%	16.6%	96.4%	103.2%	0	211,877	NA	177.0	-	52.7
99.0%	19.1%	19.1%	109.1%	116.9%	555,779	777,770	67.5	48.2	35.5	29.3
99.5%	20.8%	20.8%	119.7%	128.2%	1,029,656	1,272,977	36.4	29.5	24.5	21.2
99.9%	25.3%	25.3%	138.8%	148.6%	1,931,488	2,165,954	19.4	17.3	15.4	14.1
Average	7.3%	7.3%	45.3%	48.6%	14,605	21,383	2,567.6	1,753.7	72.9	71.9
Percent of Trials Resulting in Zero Capital Contribution					98%	97%	98%	97%	98%	97%

* Contributed capital in excess of the $500 million of initial capital
** Calculated as Original Risk divided by contributed capital plus $500 million

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United Guaranty Corporation
Comparison of Empirical Cumulative Default Rates
Corelogic Servicing Database
All Loans
Data as of March 2012

Origination Year	Non-PMI Loans					PMI Loans					Default Rate Relativity (PMI / Non-PMI)
	Loan Count	90-Day or Worse Default Count	Default Rate	Average FICO*	Average CLVT**	Loan Count	90-Day or Worse Default Count	Default Rate	Average FICO*	Average CLVT**	
1998	40,065	3,623	9.0%	693	93	9,546	843	8.8%	697	91	0.98
1999	102,156	12,516	12.3%	686	93	32,604	3,356	10.3%	694	92	0.84
2000	38,986	8,150	20.9%	680	94	24,705	2,927	11.8%	694	93	0.57
2001	150,014	16,020	10.7%	697	92	106,362	7,130	6.7%	703	91	0.63
2002	265,973	24,943	9.4%	702	92	188,271	12,409	6.6%	703	91	0.70
2003	455,758	41,407	9.1%	708	91	281,395	24,197	8.6%	705	91	0.95
2004	358,630	57,624	16.1%	710	93	228,143	29,851	13.1%	698	92	0.81
2005	481,150	146,742	30.5%	714	96	247,336	47,669	19.3%	699	93	0.63
2006	517,432	208,399	40.3%	711	96	293,720	71,192	24.2%	695	93	0.60
2007	573,239	209,986	36.6%	708	97	502,274	128,684	25.6%	695	95	0.70
2008	**337,577**	**77,024**	**22.8%**	**697**	**96**	**302,008**	**37,145**	**12.3%**	**728**	**92**	**0.54**
2009	**343,862**	**27,740**	**8.1%**	**729**	**93**	**134,179**	**1,732**	**1.3%**	**756**	**90**	**0.16**
2010	**444,433**	**10,797**	**2.4%**	**736**	**94**	**111,812**	**1,052**	**0.9%**	**754**	**92**	**0.39**

Average Default Rate Relativity — 0.65

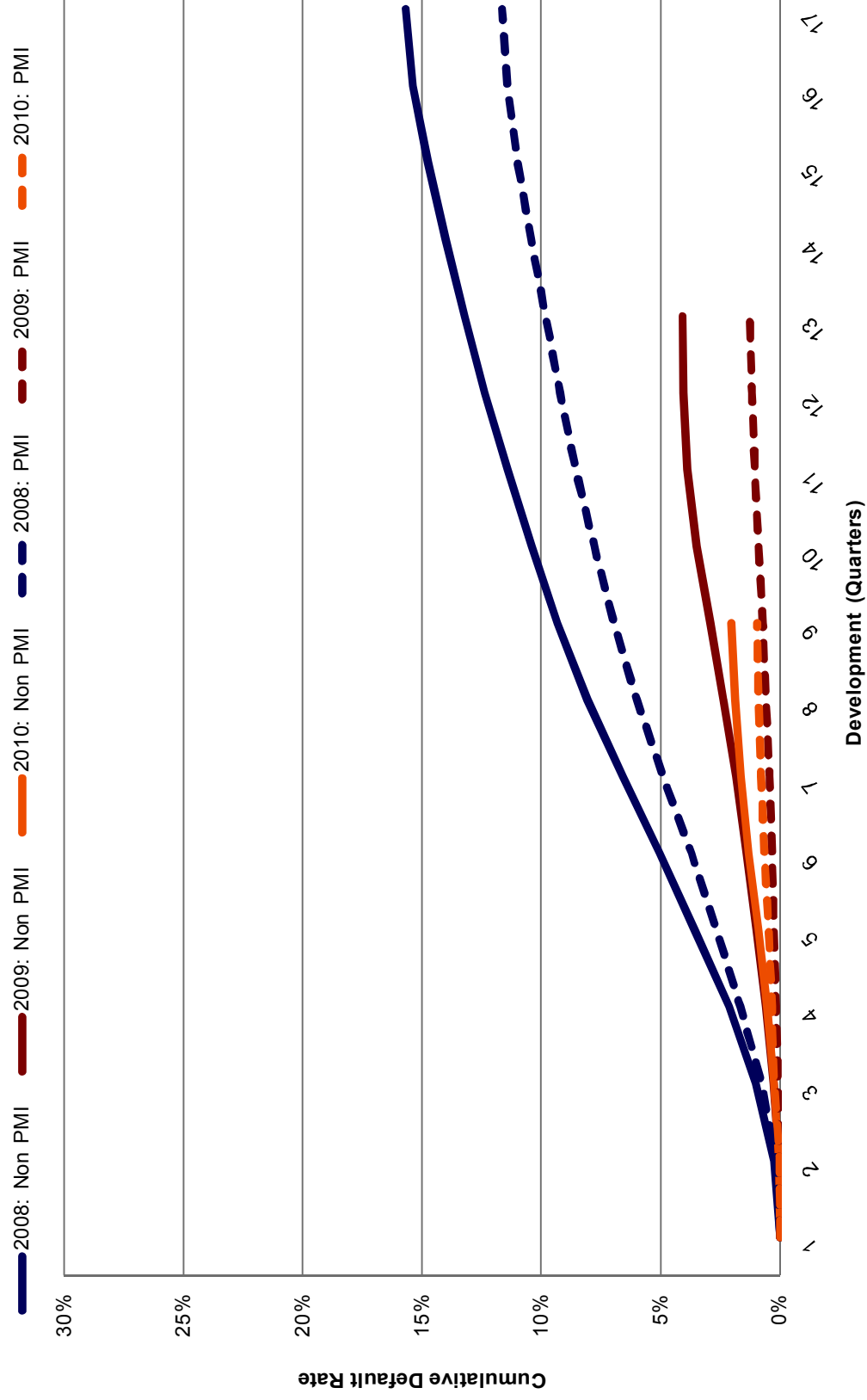|											
Total for all Years	4,440,365	846,543	19.1%	715	95	2,602,353	368,920	14.2%	713	92	0.74

*Average FICO score weighted by original loan balance
**Average Combined Loan-to-Value Ratio weighted by original loan balance

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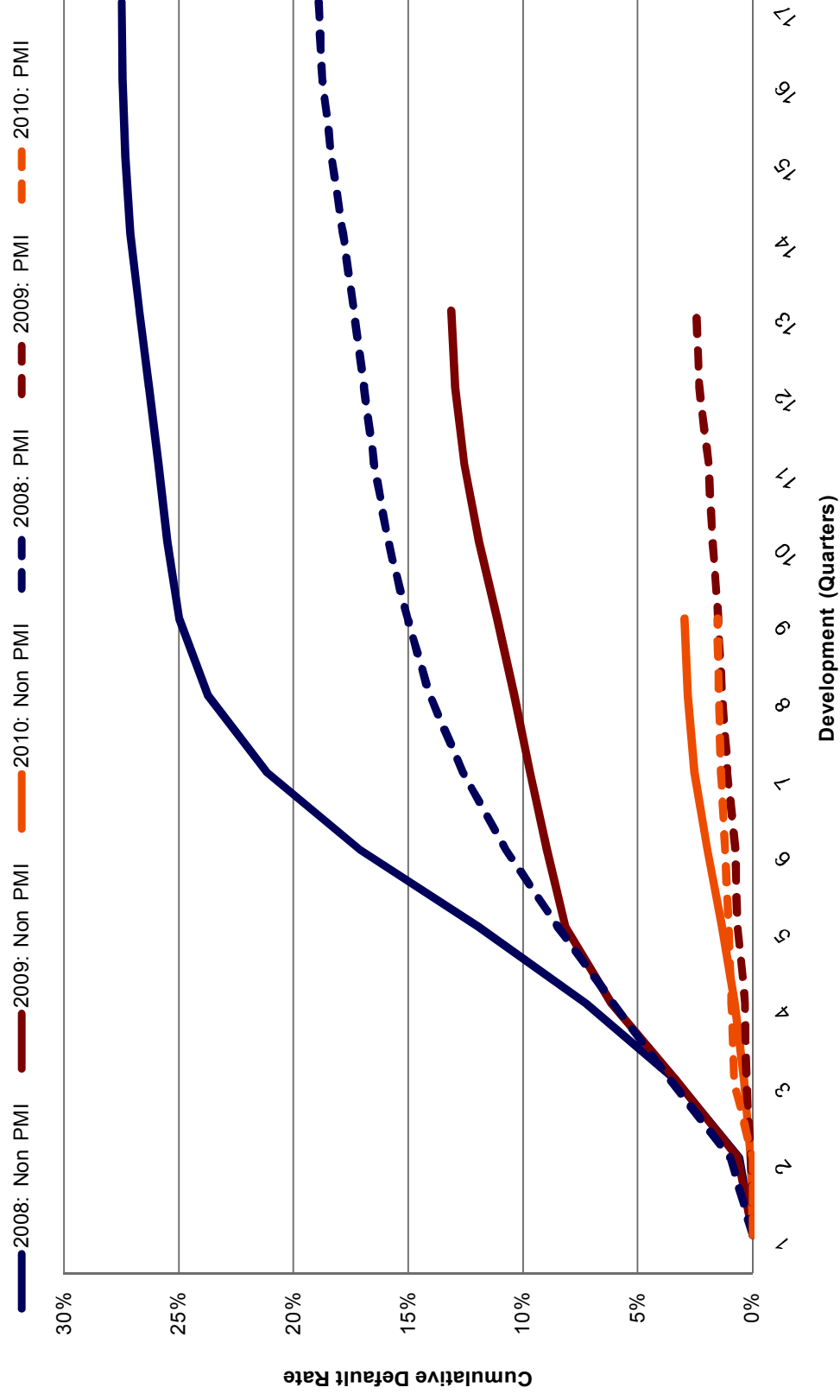United Guaranty Corporation
Comparison of Empirical Cumulative Default Rates
Corelogic Servicing Database
GSE Loans
Data as of March 2012

| | Non-PMI Loans | | | | | PMI Loans | | | | | Default Rate |
Origination Year	Loan Count	90-Day or Worse Default Count	Default Rate	Average FICO*	Average CLVT**	Loan Count	90-Day or Worse Default Count	Default Rate	Average FICO*	Average CLVT**	Relativity (PMI / Non-PMI)
1998	37,558	2,495	6.6%	696	92	9,040	774	8.6%	697	91	1.29
1999	94,212	8,525	9.0%	689	93	31,281	2,980	9.5%	695	92	1.05
2000	35,123	5,967	17.0%	685	94	23,640	2,591	11.0%	694	93	0.65
2001	138,638	11,309	8.2%	700	91	102,205	6,193	6.1%	703	91	0.74
2002	239,898	15,830	6.6%	706	91	182,254	10,705	5.9%	703	91	0.89
2003	393,044	23,091	5.9%	710	91	250,206	18,332	7.3%	705	91	1.25
2004	249,683	24,106	9.7%	712	93	195,616	21,012	10.7%	697	93	1.11
2005	244,809	46,546	19.0%	718	96	192,350	31,370	16.3%	699	93	0.86
2006	235,990	75,605	32.0%	716	98	217,416	48,001	22.1%	693	94	0.69
2007	324,737	101,428	31.2%	718	98	429,097	105,281	24.5%	694	95	0.79
2008	**133,650**	**20,963**	**15.7%**	**735**	**95**	**274,795**	**31,998**	**11.6%**	**728**	**92**	**0.74**
2009	**192,379**	**7,852**	**4.1%**	**748**	**92**	**130,296**	**1,637**	**1.3%**	**756**	**90**	**0.31**
2010	**249,928**	**5,058**	**2.0%**	**748**	**93**	**88,155**	**695**	**0.8%**	**754**	**92**	**0.39**

Average Default Rate Relativity | | | | | | | | | | | 0.83
Total for all Years | 2,887,632 | 350,178 | 12.1% | 725 | 94 | 2,263,123 | 281,808 | 12.5% | 714 | 93 | 1.03

*Average FICO score weighted by original loan balance
**Average Combined Loan-to-Value Ratio weighted by original loan balance

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United Guaranty Corporation
Comparison of Empirical Cumulative Default Rates
Corelogic Servicing Database
Non-GSE Loans
Data as of March 2012

| | Non-PMI Loans | | | | | PMI Loans | | | | | Default Rate |
Origination Year	Loan Count	90-Day or Worse Default Count	Default Rate	Average FICO*	Average CLVT**	Loan Count	90-Day or Worse Default Count	Default Rate	Average FICO*	Average CLVT**	Relativity (PMI / Non-PMI)
1998	2,507	1,128	45.0%	640	97	506	69	13.6%	697	90	0.30
1999	7,944	3,991	50.2%	629	98	1,323	376	28.4%	679	92	0.57
2000	3,863	2,183	56.5%	624	99	1,065	336	31.5%	694	94	0.56
2001	11,376	4,711	41.4%	649	97	4,157	937	22.5%	698	92	0.54
2002	26,075	9,113	34.9%	667	96	6,017	1,704	28.3%	702	92	0.81
2003	62,714	18,316	29.2%	698	93	31,189	5,865	18.8%	709	91	0.64
2004	108,947	33,518	30.8%	707	94	32,527	8,839	27.2%	704	92	0.88
2005	236,341	100,196	42.4%	711	95	54,986	16,299	29.6%	702	91	0.70
2006	281,442	132,794	47.2%	707	95	76,304	23,191	30.4%	700	92	0.64
2007	248,502	108,558	43.7%	697	96	73,177	23,403	32.0%	701	93	0.73
2008	203,927	56,061	27.5%	668	97	27,213	5,147	18.9%	728	91	0.69
2009	151,483	19,888	13.1%	695	96	3,883	95	2.4%	758	89	0.19
2010	194,505	5,739	3.0%	719	96	23,657	357	1.5%	752	92	0.51

Average Default Rate Relativity 0.60

Total for all Years 1,552,733 | 496,365 | 32.0% | 701 | 96 | 339,230 | 87,112 | 25.7% | 710 | 92 | 0.80

*Average FICO score weighted by original loan balance
**Average Combined Loan-to-Value Ratio weighted by original loan balance

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United Guaranty Corporation
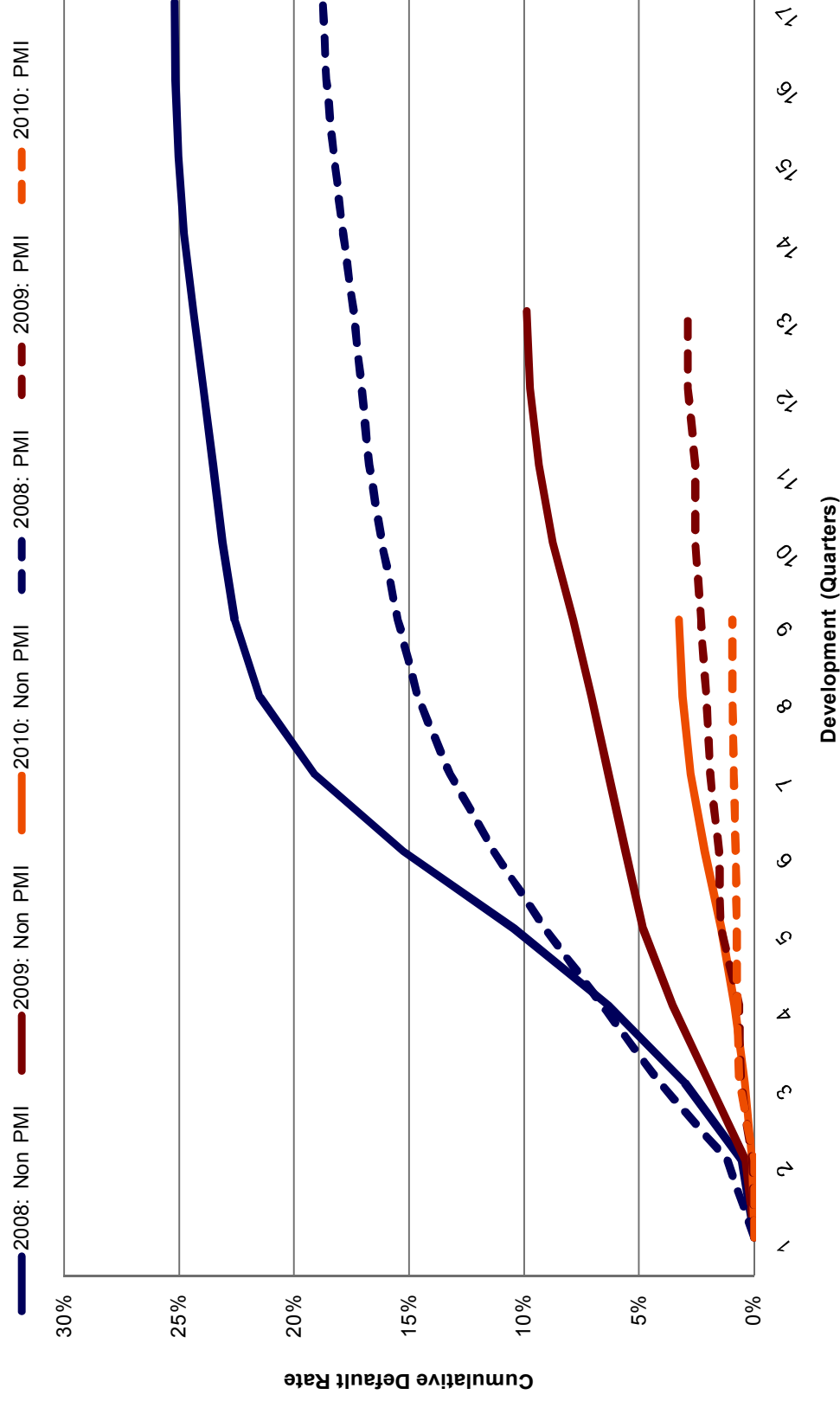**Corelogic Servicing Database**
Cumulative 90-Day or Worse Default Rate Development
by Loan Origination Year
All Loans

2008: Non PMI
2009: Non PMI
2010: Non PMI
2008: PMI
2009: PMI
2010: PMI

Cumulative Default Rate

Development (Quarters)

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United Guaranty Corporation
Corelogic Servicing Database
Cumulative 90-Day or Worse Default Rate Development
by Loan Origination Year
GSE Loans

Legend: 2008: Non PMI, 2009: Non PMI, 2010: Non PMI, 2008: PMI, 2009: PMI, 2010: PMI

Cumulative Default Rate

Development (Quarters)

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United Guaranty Corporation
Corelogic Servicing Database
Cumulative 90-Day or Worse Default Rate Development
by Loan Origination Year
Non-GSE Loans

Legend:
- 2008: Non PMI
- 2009: Non PMI
- 2010: Non PMI
- 2008: PMI
- 2009: PMI
- 2010: PMI

Cumulative Default Rate (y-axis): 0% to 30%

Development (Quarters) (x-axis): 1 to 17

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United Guaranty Corporation
Comparison of Empirical Cumulative Default Rates
Corelogic Servicing Database
Purchase Loans
Data as of March 2012

| | Non-PMI Loans | | | | | PMI Loans | | | | | Default Rate |
Origination Year	Loan Count	90-Day or Worse Default Count	Default Rate	Average FICO*	Average CLVT**	Loan Count	90-Day or Worse Default Count	Default Rate	Average FICO*	Average CLVT**	Relativity (PMI / Non-PMI)
1998	26,740	2,750	10.3%	694	94	6,928	616	8.9%	697	93	0.86
1999	80,693	10,525	13.0%	686	95	27,197	2,701	9.9%	696	93	0.76
2000	35,156	7,342	20.9%	681	95	22,803	2,552	11.2%	695	93	0.54
2001	95,677	11,625	12.2%	698	93	72,671	4,579	6.3%	705	93	0.52
2002	154,813	16,856	10.9%	702	93	112,963	7,563	6.7%	704	93	0.61
2003	221,937	22,924	10.3%	710	94	150,952	14,296	9.5%	706	94	0.92
2004	244,152	40,169	16.5%	714	94	160,705	21,663	13.5%	700	94	0.82
2005	343,077	102,253	29.8%	719	96	175,253	34,554	19.7%	703	94	0.66
2006	366,650	136,849	37.3%	717	97	215,614	50,923	23.6%	697	95	0.63
2007	381,404	125,169	32.8%	715	97	363,057	90,602	25.0%	697	96	0.76
2008	**209,965**	**42,199**	**20.1%**	**704**	**96**	**208,532**	**23,052**	**11.1%**	**730**	**93**	**0.55**
2009	**116,187**	**9,981**	**8.6%**	**709**	**96**	**76,575**	**662**	**0.9%**	**758**	**90**	**0.10**
2010	**113,359**	**3,420**	**3.0%**	**713**	**97**	**54,213**	**202**	**0.4%**	**761**	**91**	**0.12**
Average Default Rate Relativity											0.60
Total for all Years	2,427,636	532,186	21.9%	713	96	1,720,707	254,295	14.8%	714	94	0.67

*Average FICO score weighted by original loan balance
**Average Combined Loan-to-Value Ratio weighted by original loan balance

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United Guaranty Corporation
Comparison of Empirical Cumulative Default Rates
Corelogic Servicing Database
GSE Purchase Loans
Data as of March 2012

Origination Year	Non-PMI Loans					PMI Loans					Default Rate Relativity (PMI / Non-PMI)
	Loan Count	90-Day or Worse Default Count	Default Rate	Average FICO*	Average CLVT**	Loan Count	90-Day or Worse Default Count	Default Rate	Average FICO*	Average CLVT**	
1998	24,687	1,823	7.4%	697	94	6,591	567	8.6%	697	93	1.16
1999	73,602	6,934	9.4%	691	94	26,137	2,401	9.2%	696	93	0.98
2000	31,456	5,258	16.7%	686	94	21,875	2,271	10.4%	695	93	0.62
2001	87,684	8,005	9.1%	702	93	70,108	3,993	5.7%	705	93	0.62
2002	135,907	9,794	7.2%	707	93	109,496	6,656	6.1%	704	93	0.84
2003	185,425	11,208	6.0%	712	93	133,230	10,901	8.2%	706	94	1.35
2004	159,572	14,836	9.3%	716	94	136,864	15,278	11.2%	699	94	1.20
2005	168,399	30,362	18.0%	724	96	138,698	23,240	16.8%	702	95	0.93
2006	166,795	49,555	29.7%	723	98	164,736	36,162	22.0%	694	96	0.74
2007	218,505	61,018	27.9%	725	98	313,335	75,484	24.1%	696	97	0.86
2008	**83,530**	**10,337**	**12.4%**	**739**	**94**	**189,802**	**19,542**	**10.3%**	**731**	**93**	**0.83**
2009	**18,404**	**325**	**1.8%**	**759**	**91**	**75,320**	**626**	**0.8%**	**758**	**90**	**0.47**
2010	**11,136**	**86**	**0.8%**	**761**	**92**	**42,091**	**88**	**0.2%**	**761**	**90**	**0.27**
Average Default Rate Relativity											0.84
Total for all Years	1,394,149	209,553	15.0%	720	95	1,499,480	197,239	13.2%	714	94	0.88

*Average FICO score weighted by original loan balance
**Average Combined Loan-to-Value Ratio weighted by original loan balance

Milliman

United Guaranty Corporation
Comparison of Empirical Cumulative Default Rates
Corelogic Servicing Database
Non-GSE Purchase Loans
Data as of March 2012

Origination Year	Non-PMI Loans					PMI Loans					Default Rate Relativity (PMI / Non-PMI)
	Loan Count	90-Day or Worse Default Count	Default Rate	Average FICO*	Average CLVT**	Loan Count	90-Day or Worse Default Count	Default Rate	Average FICO*	Average CLVT**	
1998	2,053	927	45.2%	639	98	337	49	14.5%	698	92	0.32
1999	7,091	3,591	50.6%	628	98	1,060	300	28.3%	680	93	0.56
2000	3,700	2,084	56.3%	625	100	928	281	30.3%	696	94	0.54
2001	7,993	3,620	45.3%	640	98	2,563	586	22.9%	701	94	0.50
2002	18,906	7,062	37.4%	658	97	3,467	907	26.2%	705	94	0.70
2003	36,512	11,716	32.1%	699	95	17,722	3,395	19.2%	712	93	0.60
2004	84,580	25,333	30.0%	711	94	23,841	6,385	26.8%	708	93	0.89
2005	174,678	71,891	41.2%	716	95	36,555	11,314	31.0%	707	93	0.75
2006	199,855	87,294	43.7%	713	96	50,878	14,761	29.0%	704	94	0.66
2007	162,899	64,151	39.4%	704	97	49,722	15,118	30.4%	703	94	0.77
2008	126,435	31,862	25.2%	679	98	18,730	3,510	18.7%	730	92	0.74
2009	97,783	9,656	9.9%	695	97	1,255	36	2.9%	755	91	0.29
2010	102,223	3,334	3.3%	706	98	12,122	114	0.9%	758	91	0.29

											Average Default Rate Relativity
Total for all Years	1,033,487	322,633	31.2%	705	96	221,227	57,056	25.8%	712	93	0.59
											0.83

*Average FICO score weighted by original loan balance
**Average Combined Loan-to-Value Ratio weighted by original loan balance

Milliman

United Guaranty Corporation
Corelogic Servicing Database
Cumulative 90-Day or Worse Default Rate Development
by Loan Origination Year
Purchase Loans

Cumulative Default Rate

Development (Quarters)

Legend: 2008: Non PMI, 2009: Non PMI, 2010: Non PMI, 2008: PMI, 2009: PMI, 2010: PMI

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United Guaranty Corporation
Corelogic Servicing Database: Purchase Loans Only
Cumulative 90-Day or Worse Default Rate Development
by Loan Origination Year
GSE Purchase Loans

2008: Non PMI   2009: Non PMI   2010: Non PMI   2008: PMI   2009: PMI   2010: PMI

Cumulative Default Rate

Development (Quarters)

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United Guaranty Corporation
Corelogic Servicing Database: Purchase Loans Only
Cumulative 90-Day or Worse Default Rate Development
by Loan Origination Year
Non-GSE Purchase Loans

Legend:
- 2008: Non PMI
- 2009: Non PMI
- 2010: Non PMI
- 2008: PMI
- 2009: PMI
- 2010: PMI

Cumulative Default Rate

Development (Quarters)

Milliman

EXHIBIT B

**October 22, 2012 Letter to the Department of Treasury, FDIC
and Board of Governors of the Federal Reserve System**

<div align="right">October 22, 2012</div>

The Honorable Thomas J. Curry
Comptroller
Department of the Treasury
Office of the Comptroller of the Currency
250 E Street, S.W.
Washington, DC 20219
Docket ID OCC-2012-0008 and OCC-2012-0009

The Honorable Martin J. Gruenberg
Acting Chairman
Federal Deposit Insurance Corporation
550 17th Street, N.W.
Washington, DC 20551
RIN 3064-AD95 and 3064-AD96

The Honorable Ben S. Bernanke
Chairman
Board of Governors of the Federal Reserve System
20th Street and Constitution Ave., N.W.
Washington, DC 20551
RIN 7100-AD87

> **Re**: **Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III, Minimum Regulatory Capital Ratios, Capital Adequacy, Transition Provisions, and Prompt Corrective Action; and Regulatory Capital Rules: Standardized Approach for Risk-weighted Assets; Market Discipline and Disclosure Requirements**

Dear Sirs:

American International Group, Inc. ("AIG") is pleased to comment on two notices of proposed rulemaking ("Proposed Rules" or "NPRs"), each issued by the Office of the Comptroller of the Currency, the Board of Governors of the Federal Reserve System, and the Federal Deposit Insurance Corporation (collectively, the "Agencies"):

- Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III, Minimum Regulatory Capital Ratios, Capital Adequacy, Transition Provisions, and Prompt Corrective Action; and

- Regulatory Capital Rules: Standardized Approach for Risk-weighted Assets; Market Discipline and Disclosure Requirements.

Introduction

AIG is a leading international insurance organization serving customers in more than 130 countries. AIG companies serve commercial, institutional, and individual customers through one of the most extensive worldwide property-casualty networks of any insurer. In addition, AIG companies are leading providers of life insurance and retirement services and mortgage insurance in the United States.

AIG appreciates the opportunity to comment on the Proposed Rules and recognizes that the Proposed Rules are an important step in defining the regulatory capital framework intended for U.S. banking organizations, including certain U.S. institutions predominantly engaged in insurance-related activities, like AIG. AIG respectfully requests that as the Agencies continue to develop this regulatory capital framework, they consider the existing supervision of insurance-focused institutions, including requirements for capital and liquidity that have been specifically tailored for insurance companies. While acknowledging that such existing supervision focuses on insurance company subsidiaries and does not always capture group-wide activities, AIG believes that the Agencies should consider the effectiveness of such existing supervision at the insurance company subsidiary level during the recent financial crisis. This does not imply that regulation of insurance company subsidiaries is a substitute for holding company regulation; as AIG has stated publicly on numerous occasions, we believe that effective holding company regulation is critical to ensuring the safety and soundness of the financial system. Rather, AIG believes that many aspects of the framework used by state insurance regulators to evaluate capital and liquidity should be extended to consolidated company regulation. Therefore, AIG encourages the Agencies to work with other state and national-level supervisors to refine existing insurance company supervision standards and develop a common regulatory capital framework for global insurers.

AIG's specific comments are presented in two sections. Section I is focused on those areas of the Proposed Rules that could have a significant impact on AIG as a savings and loan holding company ("SLHC") predominantly engaged in insurance-related activities. Section II is focused on the potential impact of the Proposed Rules on AIG's mortgage insurance business, United Guaranty Corporation ("United Guaranty").

AIG's comments specifically respond to the following topics in the Proposed Rules:

I. Impact on SLHCs Predominantly Engaged in Insurance-Related Activities

    A. Transition Arrangements for SLHCs
    (*Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III, Minimum Regulatory Capital Ratios, Capital Adequacy, Transition Provisions, and Prompt Corrective Action, Part I. Introduction*)

    B. Deduction of Insurance Company Regulatory Minimum Capital Levels from Common Equity Tier 1 Capital, Tier 1 Capital and Tier 2 Capital
    (Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III, Minimum Regulatory Capital Ratios, Capital Adequacy, Transition Provisions, and Prompt Corrective Action, Part III. Definition of Capital, A. Capital Components and Eligibility Criteria for Regulatory Capital Instruments, 1. Common Equity Tier 1 Capital, reference to § 217.22 Regulatory Capital Adjustments)

C. Treatment of Unrealized Gains and Losses on Available-for-Sale Securities in the Calculation of Common Equity Tier 1 Capital

(*Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III, Minimum Regulatory Capital Ratios, Capital Adequacy, Transition Provisions, and Prompt Corrective Action, Part III. Definition of Capital, A. Capital Components and Eligibility Criteria for Regulatory Capital Instruments, 1. Common Equity Tier 1 Capital, b. Treatment of Unrealized Gains and Losses of Certain Debt Securities in Common Equity Tier 1 Capital*)

D. Risk-Weighted Asset Treatment of Exposures from Separate Accounts

(*Regulatory Capital Rules: Standardized Approach for Risk-weighted Assets; Market Discipline and Disclosure Requirements, Part III. Insurance-Related Activities*)

II. Treatment of Mortgage Insurance

A. Criteria for Evaluating the Financial Strength of a Mortgage Insurer

B. Impact of Category 1 and Qualified Mortgage Rules on the Mortgage Insurance Business Model

C. Negative Consequences of Limiting Banks from Recognizing Mortgage Insurance for the Purpose of Calculating the Loan-To-Value Ratio

(*Regulatory Capital Rules: Standardized Approach for Risk-weighted Assets; Market Discipline and Disclosure Requirements, Part II. Standardized Approach for Risk-weighted Assets, B. Risk-weighted Assets for General Credit Risk, 7. Residential Mortgage Exposures, Question 6*)

AIG's Responses

I. Impact on SLHCs Predominantly Engaged in Insurance-Related Activities

A. Transition Arrangements for SLHCs

In the Proposed Rules, the Agencies acknowledge that the proposals outlined have the potential to increase not only the capital requirements for SLHCs, but also the costs and resources required for SLHCs to adapt to a new regulatory capital framework. To address this issue, the NPRs propose "transition arrangements that aim to provide banking organizations sufficient time to adjust to the proposed new rules and that are generally consistent with the transitional arrangements of the Basel capital framework."[1]

AIG submits that the Agencies should allow for an additional transition period for SLHCs that are newly subject to this regulatory capital framework. For these institutions, the Proposed Rules do not merely represent a change in regulatory capital requirements and supporting infrastructure, but rather an entirely new framework for assessing capital. This is particularly true for those SLHCs predominantly engaged in insurance-related activities that have spent decades investing in infrastructure that supports global regulatory capital frameworks for insurance companies.

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[1] Federal Register, Vol. 77, No. 169, Thursday, August 30, 2012, Proposed Rules, page 52798.

Bank holding companies ("BHCs") already subject to the Basel regulatory capital framework have had the opportunity to commence preparations for the Basel II rules since 2004, and the Basel III rules since 2010. These BHCs have had the benefit of time not only to assess the impact of the Basel II and Basel III rules on their business models, but to commit significant financial resources towards implementation of Basel III methodology through infrastructure enhancements. After having had eight years to prepare for potential changes to the regulatory capital framework, under the Proposed Rules, these BHCs are afforded up to five years (January 1, 2013 - January 1, 2019) to fully transition to the proposed new rules. Therefore, AIG believes that a similar transition period should be permitted for SLHCs that are newly subject to this regulatory capital framework.

B. Deduction of Insurance Company Regulatory Minimum Capital Levels from Common Equity Tier 1 Capital, Tier 1 Capital and Tier 2 Capital

Under the Proposed Rules, in calculating regulatory capital SLHCs must deduct the regulatory capital required and relied upon by state or other local insurance regulators. For example, U.S.-based insurers would be required to exclude an amount equal to 100% of company action level required capital or 200% of authorized control level required capital, as determined by state insurance regulators under the framework designed by the National Association of Insurance Commissioners ("NAIC"). This capital adjustment would be distributed equally between common equity Tier 1 capital and Tier 2 capital.

AIG recognizes the need for regulators to measure appropriately the amount of capital that can be relied upon by a consolidated entity in times of economic distress. However, AIG believes that the intent of the insurance company required capital deduction, as originally proposed at the international level, was to reduce the opportunity for large European bancassurance groups to use capital dedicated to their insurance operations to support their banking franchises. These insurance operations typically represented a relatively small proportion of the consolidated capital of these banking institutions, and in no cases did they comprise the primary operations of the regulated institution.

AIG believes that the deduction for insurance company required capital is overly punitive to SLHCs predominantly engaged in insurance-related activities. An insurance company's required capital levels are determined based on both (i) the risks inherent to an insurance company's liabilities (primarily its obligations to policyholders and contract holders) and (ii) the risks inherent to an insurance company's assets (primarily its investment portfolio). Under the NAIC's risk-based capital framework, the risk components against which capital must be held include:

- For life insurers:
    - C0 Risk: Affiliated asset risk
    - C1 Risk: Non-affiliated asset risk
    - C2 Risk: Insurance risk
    - C3 Risk: Interest rate, health credit and market risk
    - C4 Risk: Business risk

- For property and casualty insurers:

    - R0 Risk: Affiliate risk
    - R1 Risk: Interest rate and market risk
    - R2 Risk: Equity risk
    - R3 Risk: Credit risk
    - R4 Risk: Insurance reserves risk
    - R5 Risk: Premium risk

The Basel III regulatory capital framework bases required capital levels on risks inherent to the assets of a SLHC, including the assets of its regulated insurance company subsidiaries under the risk-weighted asset framework. This capital requirement would be duplicative with the capital requirements imposed by insurance regulators, most notably the capital required to address C1 risk and a portion of C3 risk for life insurers and R1, R2 and R3 risk for property and casualty insurers. In essence, the Proposed Rules would require SLHCs to hold capital twice against the same risks: once at the insurance company level to satisfy state and local insurance regulators, and again at the holding company level to meet consolidated capital requirements.

C. Treatment of Unrealized Gains and Losses on Available-for-Sale Securities in the Calculation of Common Equity Tier 1 Capital

Under the Proposed Rules, the risk-based capital calculation would be revised to reflect the impact of unrealized gains and losses on available-for-sale ("AFS") securities for which changes in fair value are recognized in Accumulated Other Comprehensive Income in the calculation of common equity Tier 1 capital. This provision represents a significant departure from the existing Basel I risk-based capital rules, as well as a deviation from the treatment of unrealized gains and losses by the NAIC and state insurance regulators, which prescribe that the majority of bonds held by insurers be held at amortized cost, and thus do not recognize temporary movements in market valuations.[2]

The application of this provision would have a disproportionately negative impact on insurance companies, which, because of their long-dated liabilities, tend to hold a much greater proportion of long-dated AFS securities than banks. These long-dated AFS securities are by nature more susceptible to interest rate and credit risks. The most significant assets for any insurer are its cash and investment securities. In general, the practice of the insurance industry is to:

- Match the size of its investment portfolio with the size of its portfolio of insurance liabilities;

- Invest in high-quality, investment grade bonds; and

- Invest for the long-term, matching the duration of its investment portfolio with the duration of its portfolio of insurance liabilities.

As of December 31, 2011, U.S. property and casualty insurers held $1.3 trillion of cash and investment securities, of which approximately $1.0 trillion, or 73%, was invested in bonds. These bonds were predominantly investment grade and rated Category 1 or 2 by the NAIC, and

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[2] The NAIC, under Statement of Statutory Accounting Principles No. 26, prescribes that for insurers that carry an asset valuation reserve, bonds rated NAIC 1 – NAIC 5 be reported at amortized cost, while for insurers that do not carry an asset valuation reserve, bonds rated NAIC 1 – NAIC 2 be reported at amortized cost.

nearly 44% had maturities in excess of five years. Even more significantly, as of December 31, 2011, U.S. life insurers held nearly $3.4 trillion of cash and investment securities, of which nearly $2.6 trillion, or 78%, was invested in bonds. These bonds were also predominantly investment grade and rated NAIC 1 or 2, and nearly 64% had maturities in excess of five years.[3]

The application of this provision to institutions predominantly engaged in the business of insurance also reflects a failure to appreciate the implications of the long-term nature of insurance liabilities. Whereas banking organizations may require immediate access to funds to support withdrawals by depositors, the vast majority of insurance company liabilities are not subject to immediate withdrawal. In contrast, most insurance obligations become due over a multi-year period, during which the insurance company may generate cash from the regular maturing of its assets as well as through the sale of assets in an orderly manner over time. In fact, the resolution structure for insurance companies contemplates a prolonged period of liquidation of assets and repayment of liabilities for precisely this reason. The statutory accounting rules adopted by the NAIC, which are designed to be a conservative framework based on liquidation values, also recognize this feature of insurance companies by generally excluding the impact of unrealized gains and losses. In contrast to banks, which are heavily dependent upon short-term deposits for funding, insurance companies generally have the ability to withstand periods of economic stress without having to monetize the vast majority of their portfolios under unfavorable market conditions and suffer losses. Consequently, in periods of economic stress, unrealized losses on an insurance company's investment portfolio are likely to be less correlated with future realized losses than those of a bank.

AIG believes that the application of the Proposed Rules as they relate to unrealized gains and losses could create perverse incentives for institutions predominantly engaged in the business of insurance. As discussed above, the inclusion of unrealized gains and losses will, *ceteris paribus*, make regulatory capital ratios more volatile. In order to ensure that they are maintaining adequate capital levels in a stress environment, regulated institutions will likely respond either by increasing the capital buffers they hold or shortening the duration of their assets in order to reduce their volatility. A core tenet of insurance company risk management is the matching of assets and liabilities. However, the Proposed Rules would create an incentive for insurance companies to mismatch their assets and liabilities. AIG notes that the mismatch of asset and liability maturities is one of the six categories under the analytic framework developed by the Financial Stability Oversight Council (the "FSOC") to be used to determine whether a financial entity should be designated as systemically significant.[4] By effectively encouraging the mismatch of assets and liabilities, the Proposed Rules are thus at odds with the FSOC's stated view that asset / liability mismatches should be minimized throughout the financial system.

In the near term, insurance companies do not have the ability to significantly alter the structure of their liabilities, because of their long-dated nature. Over time, however, it is reasonable to assume that, because of the treatment of unrealized gains and losses under the Proposed Rules as well as the hazards of running a mismatched book of assets and liabilities, insurance companies will simply reduce the amount of long-dated liabilities that they generate. This could lead to an increase in the cost of insurance to consumers and businesses, and in some cases may mean that consumers and businesses are unable to obtain insurance products that are provided today.

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[3] Source: SNL Financial
[4] 12 CFR Part 1310, Appendix A, 77 Fed. Reg. 21659.

D. Risk-Weighted Asset Treatment of Exposures from Separate Accounts

The Proposed Rules include provisions for calculating risk-weighted assets for exposures that result from insurance underwriting activities, including separate account assets. Under the Proposed Rules, zero percent risk weight would be applied to exposures associated with non-guaranteed separate accounts, and a risk weight that corresponds to the underlying assets of the separate account would be applied to exposures associated with guaranteed separate accounts.

These provisions employ a broad definition of non-guaranteed separate accounts, one which the Agencies acknowledge is more restrictive than the definition utilized by insurance regulators. Under the Proposed Rules, in order to qualify as a non-guaranteed separate account:

- The insurance company may not contractually guarantee a minimum return or account value to the contract holder; and

- The insurance company must not be required to hold reserves for these separate account assets pursuant to its contractual obligations on an associated policy.

For insurance companies, separate accounts generally represent funds for which investment income and investment gains and losses accrue directly to policyholders or contract holders who bear the investment risk. The assets of each account are legally segregated and are not subject to claims that arise out of any other business of the insurer. Liabilities for these accounts are established by the insurer in an amount equal to the account assets (*i.e.*, on a dollar-for-dollar basis).

For well over a decade, insurers have been offering life and annuity products with traditional and nontraditional features of varying complexity, such as guarantees. These contracts offer guarantees that include benefits payable in the event of death, annuitization, or, in other instances, at specified dates during the accumulation period. Such benefits are generally referred to as guaranteed minimum death benefits or guaranteed minimum living benefits, which offer a variety of different alternatives.

The insurance industry and its regulators have recognized that guarantee features may pose additional risks which are borne not by the contract holder, but rather by the insurer. As a result, generally accepted accounting principles ("GAAP"), under Accounting Standards Codification Topic 944, *Financial Services* ("ASC 944"), allow for the bifurcation of the assets and liabilities of such products into risks borne by the policyholder or contract holder (separate account risks) and risks borne by the insurer (general account risks).[5]

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[5] Under ASC 944, "The portion of separate account assets representing contract holder funds should be measured at fair value and reported in the insurance enterprise's financial statements as a summary total, with an equivalent summary total reported for related liabilities, if the separate account arrangement meets all of the following conditions:
- The separate account is legally recognized. That is, the separate account is established, approved, and regulated under special rules such as state insurance laws, federal securities laws, or similar foreign laws.
- The separate account assets supporting the contract liabilities are legally insulated from the general account liabilities of the insurance enterprise (that is, the contract holder is not subject to insurer default risk to the extent of the assets held in the separate account).
- The insurer must, as a result of contractual, statutory, or regulatory requirements, invest the contract holder's funds within the separate account as directed by the contract holder in designated investment alternatives or in accordance with specific investment objectives or policies.
- All investment performance, net of contract fees and assessments, must as a result of contractual, statutory, or regulatory requirements be passed through to the individual contract holder. Contracts may specify conditions under

ASC 944 requires that liabilities related to minimum guarantees for separate accounts be fully reflected in an insurance company's general account liabilities. Consequently, AIG believes that it would be more appropriate to apply a zero percent risk weight to all separate account assets. Such a revised approach would acknowledge the fundamental dollar-for-dollar matching of separate account assets and liabilities, and would also acknowledge the fact that under GAAP, the risks posed by minimum guarantees are reserved for as part of general account liabilities, which in turn are supported by general account assets.

Additionally, AIG believes that because the risks associated with separate account assets are primarily borne by the contract holder rather than the insurer, separate account assets should be excluded from the calculation of the leverage ratio. The attribution of risks associated with separate account assets is similar to an assets under management ("AUM") concept in banking whereby the performance and risks associated with these assets are attributed to the accountholders, not the bank or asset manager. The main distinction between AUM and separate account assets, in this instance, is the GAAP accounting treatment where AUM is reported as an off-balance sheet item and separate account assets remain on the balance sheet with an offsetting separate account liability item. Nonetheless, the bifurcation of risks between the insurance company / investment manager on the one hand, and the policyholder / investor on the other, is effectively the same.

II. Treatment of Mortgage Insurance

AIG recognizes the Agencies' goals of revising and harmonizing the rules for calculating risk-weighted assets to enhance risk sensitivity and to address the weaknesses identified over recent years, and of proposing alternatives to credit ratings for calculating risk-weighted assets.[6] However, AIG believes that the Agencies should allow banking organizations to recognize mortgage insurance ("MI") for the purposes of calculating the loan-to-value ("LTV") ratio when the mortgage insurer is financially sound and the underlying risk is properly evaluated and managed.

Mortgage insurers are uniquely positioned and have a strong incentive to identify high-quality mortgages because their capital is in the first-loss position (generally the first 25% of the loan balance at default). While banks also underwrite mortgage loans, banks typically occupy a second- or third-loss position, which provides less of an incentive to allow only "good mortgages" to be originated. Thus, in addition to placing private capital at risk in a first-loss position, financially strong mortgage insurers act as independent third-party risk managers and provide superior double default protection compared to simply holding additional capital for credit risk mitigation.

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which there may be a minimum guarantee, but not a ceiling, as a ceiling would prohibit all investment performance from being passed through to the contract holder."
This accounting guidance continues with a clarification that "[a]ny liabilities related to minimum guarantees and insurance benefit liabilities under the contracts in excess of the fair value of separate account assets representing contract holder funds should be recognized as general account liabilities. If a separate account arrangement does not meet the criteria noted above, assets representing contract holder funds under the arrangement should be accounted for (measured and presented) the same as other general account assets and any related liability should be accounted for as a general account liability."
[6] Regulatory Capital Rules: Standardized Approach for Risk-weighted Assets; Market Discipline and Disclosure Requirements, page 1.

A. Criteria for Evaluating the Financial Strength of a Mortgage Insurer

1. The Agencies should evaluate a mortgage insurer's capital base utilizing a risk-based methodology under a severe stress scenario.

Historically, state insurance regulators measured the adequacy of capital for a mortgage insurer by its risk-to-capital ratio ("RTC"), with a maximum allowable RTC of 25-to-1. While the RTC measure was adequate in many economically stressful environments (such as those in the 1980s and early 1990s),[7] the severe stress during the recent housing market downturn demonstrated the weakness of relying solely on this measure of capitalization, as several mortgage insurers have exceeded this maximum – some of which have been placed into run-off, others of which have received temporary waivers from state regulators in order to continue writing new business to boost their capital levels.[8] AIG and its mortgage insurance subsidiary United Guaranty believe that the RTC measure is too simplistic, in part because the ratio fails to account for the underlying risk of the insured loan portfolio. The recent historic housing downturn was exacerbated by the increased underlying risk associated with faulty loan products that relaxed documentation requirements and did not require evaluation of a borrower's ability to repay the loan, as well as fraud and misrepresentation. By failing to consider these factors, the RTC measure does not adequately measure the risk to a mortgage insurer.

Rather than relying solely on the RTC insurance regulatory measure, mortgage insurers should be evaluated utilizing the stress test methodologies already recognized by the Agencies in conjunction with an evaluation of the underlying insurance risk. Specifically, the Agencies should require a mortgage insurer to generate (i) a comprehensive, forward-looking capital plan that accounts for the credit quality of its insured loan portfolio and the adequacy of its reserves, and calculates its minimum capital requirement under defined economic scenarios, and (ii) a risk management self-assessment based on consistent criteria.

Once the Agencies agree to the prudential standards on "how" to measure the financial strength of a mortgage insurer (described in more detail below), the question remains as to "who" should do the evaluation.

One option is for mortgage insurers to provide banks with their capital plans and risk management self-assessments, or other information that would facilitate their review of the counterparty exposure associated with the mortgage insurer. Banks could rely on the capital plans and risk assessments that conform to the prudential standards, but could also conduct appropriate due diligence, based on the size of the institution and their regulatory examination requirements, as is customary with respect to counterparty evaluations of other vendors.

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[7] The U.S. housing market in the 1980s and early 1990s experienced a rolling series of predominantly regional recessions, beginning with the farm and Rust Belt states in the early 1980s, followed by the energy-producing states in the mid-1980s, and finally New England and California in the early 1990s (see generally David C. Wheelock, "What Happens to Banks When Housing Prices Fall? U.S. Regional Housing Busts of the 1980s and 1990s," Federal Reserve Bank of St. Louis Review 88, no. 5 (September/October 2006), 413-429). Some of the most severe conditions of this period occurred in the "oil patch" states of Arkansas, Louisiana, Mississippi, and Oklahoma, where 30-year, fixed-rate, first-lien mortgages on owner-occupied single family properties originated in 1983 and 1984 had a 10-year cumulative default rate of 14.9% (see "The Role of Private Mortgage Insurance in the U.S. Housing Finance System", Promontory Financial Group, LLC, January 2011, page 36).

[8] See 2Q 2012 Statutory Filings (Quarterly Statement as of June 30, 2012) for Genworth Mortgage Insurance Corporation and for Mortgage Guaranty Insurance Corporation.

A second option would be for supervisors to determine whether banks could rely on a particular mortgage insurer. There are two paths that this could take:

1. Mortgage insurers could submit their capital plans and risk management self-assessments to the newly established Model Validation Council ("Council") established by the Board of Governors of the Federal Reserve System[9] on a periodic basis. The Council would determine whether a bank could take credit for the mortgage insurance by that mortgage insurance provider based on the Council's independent evaluation.

2. A supervisory assessment could be conducted as an adjunct to the existing Shared National Credit ("SNC") program. Under the SNC program, bank examiners currently assess the creditworthiness of obligors that create exposure for multiple banking organizations. A supervisory assessment of mortgage insurers that provide credit support that is relied upon by multiple institutions would be a logical extension of this program.

Unlike the homogenous evaluation and capital requirements under RTC, the capital plan should include a risk-based evaluation of the insured loan portfolio to determine whether the mortgage insurer is holding sufficient capital based on the underlying risk factors, including, but not limited to:

- LTV ratio;
- Credit score;
- Debt-to-income ratio ("DTI");
- Property type (*e.g.*, single family, condo, manufactured home);
- Loan type: fixed versus ARM;
- Loan term;
- Origination channel (*e.g.*, retail, correspondent, broker);
- Quality of lender manufacturing process;
- Self-employed indicator; and
- Prior bankruptcy indicator.

The risk of default varies widely depending on the presence or absence of these predictive variables. Mortgage insurers should be required to maintain more capital against loans that contain higher risk traits. Compare the following two examples:

Loan A: 90% LTV, 780 credit score, 30% DTI, purchase mortgage for a single family residence, 30-year fixed mortgage originated in the retail channel by a lender with an average quality manufacturing process, no prior bankruptcies and not self-employed. The claim rate[10] in an extreme stressed economic environment (like the loans originated in the 2006-2008 period) is 2.05%.

Loan B: 95% LTV, 680 credit score, 45% DTI, refinanced mortgage for a single family residence, 30-year fixed mortgage originated in the broker channel by a broker with an average quality manufacturing process, borrower filed for a prior bankruptcy and is self-employed. The claim rate in an extreme stressed economic environment is 28.19%.

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[9] See description of Model Validation Council at http://www.federalreserve.gov/aboutthefed/mvc.htm.
[10] Claim rate refers to the expected probability of a claim being filed on an insured loan and is highly correlated with the risk of default of a loan.

It is clear that Loan A presents a lower risk of default than Loan B, which has excessive risk layering that produces a much higher expected claim rate. Under the risk-based approach set forth in this letter, the mortgage insurer should hold more capital against Loan B than against Loan A, based on the loan level evaluation of the risk of default.

Consideration should likewise be given to the adequacy of reserves. A mortgage insurer must have appropriate reserves, which are comprised of: reserves to cover short-term expected claims (loss reserves or case basis reserves); unearned premium reserves; and contingency reserves which amount to 50% of net earned premiums that must be maintained for ten years to cover losses during times of severe housing market stress. The adequacy of a mortgage insurer's reserves is a key indication of its claims-paying ability; therefore, United Guaranty recommends that mortgage insurers be required to obtain an opinion from an independent actuarial firm substantiating the adequacy of the mortgage insurer's reserves as a part of its capital plan.

Finally, the capital plan should evaluate whether the mortgage insurer's balance sheet is diversified and the relative liquidity of the assets. Since a mortgage insurer is required to be monoline, thereby concentrating its risk exposure, diversification allows the mortgage insurer to better withstand market corrections. For example, reinsurance from strong counterparties, parental support agreements from a strong parent holding company and catastrophe bonds provide mechanisms for a mortgage insurer to diversify its balance sheet and adequately manage its risk concentration. Additionally, investments in affiliates, which are highly illiquid and unlikely to be converted into cash at their book value, should be discounted. In conclusion, requiring mortgage insurers to submit capital plans, including a risk-based evaluation of the insured loan portfolio, will enable the Agencies to evaluate whether a mortgage insurer would be able to meet regulatory capital ratios above the minimum levels and pay claims in full over the course of the stress scenario horizon.

2. The mortgage insurer must have robust risk management systems in place to ensure proper pricing and risk evaluation at a loan level.

Having a strong balance sheet, even under stress scenarios, is not enough. The balance sheet is a lagging indicator, so a mortgage insurer must have robust risk management systems and pricing to ensure that it will remain financially sound in the future. While some judgment is necessary to evaluate a mortgage insurer's risk management, United Guaranty believes that subjectivity can be minimized by establishing consistent criteria to define effective risk management. The Agencies should require a mortgage insurer to submit a risk management self-assessment as a part of its capital plan, verifying that the mortgage insurer (i) has established and adheres to formal risk tolerances and that such tolerances encompass all key risks, particularly concentrations that are not inherently unfavorable, such as geography; (ii) performs an independent underwriting assessment, and screens for fraud on a loan-by-loan basis; and (iii) appropriately prices the insurance based on the underlying risk factors. A risk-based pricing approach that properly prices the risk profile of the loan as well as catastrophic risk will provide a mortgage insurer with sufficient reserves to address another severe stress scenario.

The ability to manage credit risk effectively represents a critical factor to the sustainability of the mortgage insurer's balance sheet, but also a source of considerable value for the housing finance system. Importantly, mortgage insurers are in a first-loss position, and this "skin in the game" effectively aligns mortgage insurers with the rest of the mortgage value chain, including

borrowers, originators, investors, and servicers. Thus, MI is not only hard private capital at risk to ensure incentive alignment from borrowers to investors, but the mortgage insurer is the only party in the mortgage origination chain that takes a second look at the loans to ensure compliance with prudent underwriting standards, and to prevent fraudulent loans from ever entering the system. A mortgage insurer can provide a robust second underwrite (prior to loan closing) utilizing risk-based management approaches and third-party fraud screening reviews. Managing credit risk is the primary business of a mortgage insurer and validating the loan information and risk profile prior to loan closing is a key risk management approach. With proper front-end verification, the mortgage insurer can prevent some credit losses from ever being incurred.

Based on United Guaranty's observations during the recent housing downturn, AIG believes that the current delegated underwriting model, which is based on the representations and warranties of the mortgage system participants relating to the accuracy of the data, is flawed.[11] This representations and warranties model allows bad credit to enter the system and results in unnecessary litigation and uncertainty as the mortgage system participants argue and litigate to determine which party bears fault. The Federal Housing Finance Agency ("FHFA") recently announced the Representation and Warranty Framework[12] that attempts to solve for this uncertainty by relieving lenders of certain repurchase obligations for loans with 36 months of consecutive, on-time payments. In United Guaranty's view, this proposed framework fails to solve for the underlying issue relating to the accuracy of the information at origination, which is critical to properly evaluating the risk profile of the loan. In contrast, mortgage insurers are uniquely positioned to validate the information at the time of origination. Further, providing an additional review on the front-end of the loan origination process not only validates the accuracy of the information, but should greatly reduce repurchase risk, rescissions and denials. A recent FHFA report supported this conclusion, noting that "mortgage insurers now control risk from new loans through tightened underwriting standards and restrictions on insuring properties in higher risk markets."[13] Only mortgage insurers provide this second look.

While it may not be necessary to review every document in every loan file, a prudent MI underwriting process cannot be accomplished through the exclusive use of automated underwriting systems. A complete and accurate loan file and the ability to review and evaluate the loan information, are critical components of a prudent risk review process. And mortgage insurers have the proper incentives and specialized risk expertise to review loans submitted for MI critically to ensure compliance with underwriting criteria. The risk that a loan will default is driven by several categories of risk, including risk characteristics of the borrower, the property and the loan, the quality of the loan origination manufacturing process and macroeconomic risks such as declines in housing prices. The dynamic interaction of these risk variables in a changing environment is essential to preventing an increase in the risk of default.

To demonstrate the value of the second underwrite and risk management expertise provided by mortgage insurers, United Guaranty commissioned a study by Milliman, Inc. to evaluate the average default rates across all years for high-LTV loans with MI compared to high-LTV loans without MI. The results of this study statistically validate that the second underwrite and the risk

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[11] The FHFA has also identified the flaws in this model. See FHFA Letter to Congress (July 31, 2012), page 6, available at http://www.fhfa.gov/webfiles/24112/PF_LettertoCong73112.pdf.

[12] See FHFA's New Release "FHFA, Fannie Mae and Freddie Mac Launch New Representation and Warranty Framework (September 11, 2012) at http://www.fhfa.gov/webfiles/24366/Reps_and_Warrants_Release_and_FAQs_091112.pdf

[13] See FHFA 2010 Report to Congress (June 13, 2011) page 20, available at: http://www.fhfa.gov/webfiles/21570/FHFA2010RepToCongress61311.pdf.

management expertise provided by mortgage insurers lower the default rate of mortgages, all else being equal.[14] For example, the average default rate for high-LTV purchase loans without MI in 2009 is 8.6%; the average default rate for high-LTV purchase loans with MI in 2009 is only 0.9%.[15] Stated another way, a high-LTV loan that did not receive the benefit of the second underwrite and the mortgage insurer's risk management expertise is more than nine times more likely to default than a high-LTV loan with MI (see Exhibit A for additional data demonstrating the empirically lower default loss curves for loans originated in 2009 through 2011 that shows that the mortgage insurance industry is prudently underwriting loans and managing risk at a higher level compared to the industry as a whole). Effective risk management and the second underwrite provided by mortgage insurers reduces the frequency of default for mortgage loans and promotes the resilience of banking organizations and the banking system generally.

3. The MI company must have effective loss mitigation programs that assist delinquent borrowers.

Mortgage insurers have substantial expertise in developing and implementing effective loss mitigation programs that help keep borrowers in their homes. United Guaranty is a key supporter of the U.S. government's Home Affordable Refinance Program ("HARP") and Home Affordable Modification Program ("HAMP"). United Guaranty has helped almost 35,000 people refinance with HARP (totaling approximately $6.9 billion in loans – including $1.7 billion in 2011 and $3.0 billion in the first eight months of 2012). In addition to HARP refinances, United Guaranty has helped more than 18,000 additional families modify their mortgages and stay in their homes during the first eight months of 2012 alone. A mortgage insurer's loss mitigation expertise directly reduces a bank's exposure to losses stemming from defaulted mortgage loans.

4. A financially sound mortgage insurer that effectively manages risk and loss mitigation provides superior double default protection as compared to simply holding additional capital for credit risk mitigation.

Despite the stresses of the recent housing crisis, mortgage insurers have cumulatively paid more than $39 billion in claims from 2007 through the first half of 2012.[16] It is important to note that this represented the most stressful economic period the U.S. has experienced since the Great Depression, with the housing sector hit particularly hard. So despite the general departure from prudent risk management that occurred prior to the financial crisis, the MI business model required companies to hold significant contingency reserves and the mortgage insurers still paid the majority of claims owed. Even the weakest mortgage insurers continue to pay claims (though at a reduced level with a potential future deferred payment obligation)[17] which directly reduces the loss severity to the banking organization. The MI industry continues to recapitalize and has proven to be stronger than any self-insurance model. This historic benefit alone should be sufficient justification to allow banks some level of credit for MI. For a financially sound

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[14]See pgs. 21-24 of "Basel III Risk-Weighted Assets Comment Letter: Mortgage Insurance Analysis as of March 2012" dated October 11, 2012 by Milliman, Inc., which updates a previous study by Milliman, Inc. on the benefit of the second underwrite titled "Mortgage Insurance Loan Performance Analysis as of March 31, 2011" dated July 28, 2011.

[15] Id. at Appendix Exhibit 3, Page 1.

[16] United Guaranty estimated the cumulative paid claims from 2007-2011 based on the gross paid losses reported in competitors' statutory financial statements and for the first half of 2012 based on direct paid losses, as reported for their primary U.S. mortgage guaranty insurance company.

[17]See 2Q 2012 Statutory Filings (Quarterly Statement as of June 30, 2012) for Republic Mortgage Insurance Company and for PMI Mortgage Insurance Company.

mortgage insurer that effectively manages risk and mitigates potential losses, banks should clearly be able to take <u>full</u> credit for MI in calculating LTV.

B. Impact of Category 1 and Qualified Mortgage Rules on the MI Business Model

<u>1. The Proposed Category 1 Definition and the Qualified Mortgage Rules Minimize the Underlying Risk of Loans</u>

The Agencies have proposed to apply relatively low risk weights for residential mortgage exposures that do not have product features associated with higher credit risk (defined as Category 1 loans), and higher risk weights for nontraditional loans that present greater risk.[18] Given the similarities between the proposed Category 1 definition and the proposed Qualified Mortgage ("QM") rules to be finalized by the Consumer Financial Protection Bureau, United Guaranty encourages the Agencies to base risk weights on whether a loan fits the definition of a QM, rather than creating an additional regulatory distinction. The QM rules, like the proposed Category 1 definition, exclude higher risk loan products such as loans with terms that exceed 30 years, interest-only features, balloon payments and annual rates of interest that increase more than 2% in a 12-month period or more than 6% over the life of the loan. Furthermore, under QM, the lender must apply underwriting standards that take into account documented and verified income to determine the borrower's ability to repay the loan. The QM rules, like the Category 1 definition, will lower the credit risk of originated mortgages, safeguard against material deterioration in underwriting standards and risk tolerances, and allow the Agencies to apply relatively low risk weights for lower risk loans (QM loans), and higher risk weights for higher risk loans. Importantly, relying on either the QM rules or the Category 1 definition will reduce the origination of higher risk loans that have a higher rate of default, further supporting a financially sound mortgage insurer's ability to pay all losses incurred.

<u>2. The MI Business Model Could Have Withstood Losses if the Loans Originated were Limited to QM Loans</u>

In light of the proposed regulatory overlays governing the underwriting of residential mortgage loans under Category 1 of the Proposed Rules and the QM rules, United Guaranty commissioned a study to:

1. Estimate the default risk profile of QM loans[19] compared to loans not limited by the QM definition; and

2. Estimate the required RTC ratio to cover paid losses and other required obligations at various levels of confidence for a mortgage insurer insuring only QM loans.

First, Milliman, Inc. utilized industry data and actuarial models to estimate the default risk profiles and required capital levels for a mortgage insurance company insuring only QM loans. Strikingly, the estimated historical mean ultimate default rate for QM loans is 7.4%, which is less than half the estimated historical mean ultimate default rate of 16.7% for loans not filtered for

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[18] Regulatory Capital Rules: Standardized Approach for Risk-weighted Assets; Market Discipline and Disclosure Requirements, page 29.
[19] See "Basel III Risk-Weighted Assets Comment Letter: Mortgage Insurance Analysis as of March 2012," Milliman, Inc., p. 4. For the purposes of this study, Milliman, Inc. defined Qualified Mortgages as having the following characteristics: maximum 97% LTV, credit score greater than or equal to 620; fully documented; fully amortizing; original term of 360 or less; period rate reset cap of 2% or less; and lifetime rate reset cap of 6% or less.

QM requirements. In addition, the estimated default rate under extreme economic conditions (99th percentile) for QM loans is 18.4%, which is significantly less than the corresponding estimated 99th percentile default rate of 44.8% for loans not filtered for QM requirements.[20] These results illustrate that mortgage insurance risk under QM is inherently less risky compared to all loans evaluated in the study.

Next, based on the default risk profile associated with QM loans, Milliman, Inc. ran simulated trials to project whether a mortgage insurer would be required to make additional capital contributions to cover such losses. Assuming the mortgage insurer has $500 million[21] in initial capital, and the mortgage insurer receives the benefit of diversification across 15 books of business, even under severe stress scenarios, a mortgage insurer that insured only QM loans at today's premium rates would require capital contributions in only 3% of the 10,000 simulated trials. A mortgage insurer with a RTC ratio of 30-to-1 would not require additional capital contributions in 99.0% of the trials. A mortgage insurer with a RTC ratio of 25-to-1 (the regulatory minimum) would not require additional capital contributions in 99.5% of the trials.

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[20] Id. at 5.
[21] Fannie Mae and Freddie Mac have historically required this level of initial capitalization prior to approving a mortgage insurer as "eligible" under its Eligibility Guidelines.

TABLE 3
RISK-TO-CAPITAL RATIO COMPARISON
NO REQUIRED CAPITAL OVER CONTINGENCY RESERVE, 20% EXPENSE RATIO,
3% INVESTMENT INCOME, 35% TAX RATE
MUTIPLE-BOOK ANALYSIS ON $10 BILLION OF ORIGINAL NIW OF QUALIFIED MORTGAGES PER YEAR
($ THOUSANDS)

Confidence Level	Average Coverage Percentage: 25% Original Risk: $37.5 Billion Initial Amount of Capital: $500 Million					
	Premium Rate 0.75%			Premium Rate 0.70%		
	Additional Contributed Capital*	Risk to Contributed Capital Ratio	Risk to Capital Ratio**	Additional Contributed Capital*	Risk to Contributed Capital Ratio	Risk to Capital Ratio**
80%	0	NA	NA	0	NA	NA
90%	0	NA	NA	0	NA	NA
95%	0	NA	NA	0	NA	NA
97.5%	0	NA	NA	211,877	177.0	52.7
99.0%	555,779	67.5	35.5	777,770	48.2	29.3
99.5%	1,029,656	36.4	24.5	1,272,977	29.5	21.2
99.9%	1,931,488	19.4	15.4	2,165,954	17.3	14.1
Percent of Trials with Zero Capital Contributions		98.0%	98.0%		97.0%	98.0%

* Contributed capital in excess of the $500 million of initial capital
** Calculated as Original Risk divided by contributed capital plus $500 million

As illustrated in the above chart,[22] United Guaranty believes the current framework for regulating and measuring a mortgage insurer's capital strength would likely have worked as intended if the credit quality of insured mortgages had not changed dramatically. This study should not only bolster the Agencies' confidence that a financially sound mortgage insurer will be well-positioned to pay the losses it owes, but it also illustrates the necessity of evaluating the underlying risk characteristics of the insured loan portfolio. A mortgage market where the majority of loans originated will meet the definition of a QM will undoubtedly safeguard against material deterioration in underwriting standards and risk tolerances. Assuming the mortgage insurer is financially strong and adequately manages its risk, the data and qualitative information provided herein makes clear that banks should be allowed to fully recognize MI for the purposes of calculating the LTV.

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[22] "Mortgage Insurance Analysis as of March 2012" at 7.

C. Negative Consequences of Limiting Banks from Recognizing MI for the Purpose of Calculating the LTV Ratio

1. The Proposed Rules would limit the participation of private capital in high-LTV lending and would increase the government's housing exposure by incentivizing banks to originate FHA loans.

AIG and United Guaranty firmly believe that financial incentives dictate the investment choices of banks, and that banks are unlikely to originate high-LTV loans to hold in portfolio if the Agencies disallow credit for MI for the purposes of calculating LTV. The removal of recognition of MI in the LTV calculation in the Proposed Rules will unnecessarily eliminate opportunities to provide financing for borrowers with high-LTV loans, as banks will either price these loans substantially higher or choose not to originate them at all. Consequently, this change will drive loans to the Federal Housing Administration ("FHA"), increasing government (and taxpayer) exposure to the mortgage market. Additionally, the absence of competition combined with continued rate increases by the FHA will reduce the availability of competitive credit terms to this group of borrowers, which includes first-time homebuyers. Given the U.S. government's explicit goal to expand private capital in the mortgage market and reduce the government's exposure,[23] the Agencies should allow banking organizations to take credit for MI when calculating LTV when the mortgage insurer is financially sound and the underlying risk is properly evaluated.

2. Limiting the competitive credit alternatives for high-LTV loans will reduce borrower choices and will hinder banking organizations in fulfilling their Community Reinvestment Act obligations.

United Guaranty is dedicated to ensuring sustainable home ownership for creditworthy borrowers who lack the funds for a sizeable down payment, especially those first-time homeowners and low- and moderate-income borrowers for whom MI is essential – an objective of U.S. housing finance policy since the New Deal.[24] Mortgage insurers have extensive expertise in mortgage product development in the high-LTV space and continue to bring innovations to the marketplace that address the problems associated with today's lending environment. Recently, United Guaranty introduced its innovative CoverEdge product. Loans insured through CoverEdge undergo additional fraud screens and underwriting after the loan closes, to ensure that the loan has been underwritten appropriately. As a result, CoverEdge nearly eliminates a bank's buyback exposure. Thus, eliminating credit for MI on high-LTV loans will not only reduce the availability of conventional loans to certain segments of the population, but such action would eliminate a bank's ability to rely on loan products such as CoverEdge that are especially positioned to provide banks with enhanced protection against fraud or misrepresentation.

3. To the extent that some high-LTV loans to be held in portfolio are still originated, there will be a disproportionate impact on smaller lenders.

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[23] See "Reforming America's Housing Finance Market, A Report to Congress, February 2011," U.S. Department of the Treasury and U.S. Department of Housing and Urban Development, page 12.
[24] See "The Role of Private Mortgage Insurance in the U.S. Housing Finance System", Promontory Financial Group, LLC, January 2011, page 4.

Smaller lenders already face a proportionately higher burden when allocating capital for compliance and legal risks. Increasing the capital requirements on all banks for such loans would exacerbate the competitive advantage larger lenders have in the efficient use of capital. Competitive pressures may ultimately price the smaller lenders out of the mortgage market and lead to more concentration among the largest lenders. Ultimately, the additional costs will likely be passed on to consumers and there will be further restriction of credit, exacerbation of economic disparities and reduction of competition.

4. The combined impact of the Proposed Rules and the QM and Qualified Residential Mortgage rules could decrease the availability of conventional mortgage loan products.

The regulatory overlay of the Proposed Rules with the QM and Qualified Residential Mortgage ("QRM") rules will unnecessarily limit residential lending to qualified borrowers. For example, one argument articulated in support of the very limited QRM definition is that loans that fall outside the QRM definition will continue to be originated to be held in portfolio by banking organizations. This assumption has been key in supporting the argument that QRM will not hurt the liquidity of the mortgage market. However, since the Proposed Rules do not allow banking organizations to recognize MI for purposes of calculating the LTV ratio of a high-LTV loan, thereby increasing the amount of capital that must be held, banking organizations are not likely to originate and hold high-LTV loans in portfolio. United Guaranty encourages the Agencies to consider whether the overall regulatory scheme can be simplified, without compromising the underlying objectives of the regulators, by relying on the QM rules rather than the Category 1 / Category 2 distinction.

Conclusion

AIG appreciates the opportunity to comment on the Proposed Rules. The company would welcome further dialogue with the Agencies regarding the future regulatory capital framework for SLHCs predominantly engaged in insurance-related activities, as well as the appropriate framework to measure the strength of mortgage insurers.

Sincerely,

David A. DeMuro

Vice President & Deputy General Counsel,

Global Regulatory and Government Affairs

American International Group, Inc.