

# Assured Guaranty Municipal Corp. (AGM)

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**Table of Contents**

Executive Summary .....	3
Rating Summary .....	4
Outlook: Stable.....	5
Key Rating Determinants.....	6
Rating Determinant 1: Corporate Assessment .....	6
Background .....	6
Ownership Structure.....	6
Strategy .....	7
Corporate Governance .....	8
Risk Management .....	8
Surveillance .....	9
Rating Determinant 2: Insured Portfolio and Modeling Analysis .....	10
Insured Portfolio, Gross and Net.....	10
Net Par Exposure by Type .....	10
U.S. Public Finance.....	11
Structured Finance .....	12
Non-RMBS Portfolio .....	12
Residential Mortgage Backed Securities (RMBS) .....	13
International Infrastructure .....	13
Portfolio Stress Analysis .....	13
Puerto Rico Stress Case Losses .....	13
RMBS Stress Case Losses.....	14
Distressed Credits .....	15
Monte Carlo Simulation Model.....	15
Bond Insurer Financial Model .....	15
Rating Determinant 3: Claims Paying Resources and Financial Profile.....	16
Claims Paying Resources.....	16
Balance Sheet .....	17
Investments.....	17
Income Statement .....	18
Dividends .....	19
Reinsurance .....	19
Sutton Capital Trusts.....	19
Conclusion .....	20

## Executive Summary

Kroll Bond Rating Agency (KBRA) has affirmed the insurance financial strength rating of AA+, Stable Outlook, of Assured Guaranty Municipal Corp. (AGM).

KBRA determined a level of stress losses to be applied to AGM's insured portfolio based upon assumptions that are consistent with a AA+ rating. KBRA then assessed AGM's ability to meet these claims. In this stress case scenario, AGM satisfied all claims in full and on time and, in KBRA's opinion, its ability to do so supports this rating.

KBRA notes that significant uncertainty remains with respect to AGM's exposure to Puerto Rico. The financial position of the Commonwealth of Puerto Rico continues to be severely stressed as evidenced by numerous defaults by various Puerto Rican issuers, including virtually all general obligation debt service due on July 1, 2016. Despite extensive ongoing efforts by various stakeholders, including the passage of the Puerto Rico Oversight, Management, and Economic Stability Act (PROMESA) legislation at the end of June, in KBRA's opinion, the ultimate resolution for creditors remains uncertain. KBRA has endeavored to address this uncertainty by developing a conservative stress case for AGM's insured Puerto Rico exposures and assessing AGM's ability to pay all claims reflected in this scenario. Further detail on the Puerto Rico stress case is described later in this report.

AGM has written primarily U.S. municipal business since the credit crisis (with a small amount of international infrastructure business). It retains a significant legacy exposure to structured finance although it has been declining. Within this structured finance portfolio the company has exposure to \$4.1 billion of residential mortgage backed securities (RMBS). This sector has produced the majority of the company's paid losses in recent years and represents the most significant source of expected losses going forward. Therefore, it was a focus of KBRA's analysis. In developing stress case losses for this sector, KBRA's RMBS analysts applied assumptions based on the RMBS sub-sector (e.g. first lien, HELOC, CES). For a majority of the exposures from first-lien sub-sectors, KBRA applied stress assumptions which included a decline in property values of 40%. For HELOC or CES exposures, KBRA applied stress assumptions which included multiples to observed prepayment rates.

Similarly, conservative assumptions were applied to the other segments of the company's insured portfolio to develop an aggregate level of stress case losses. AGM's ability to pay these claims, together with other expenses, was assessed in KBRA's Bond Insurer Financial Model. AGM met all requirements with a comfortable balance remaining.

Assured Guaranty recently announced the launch of a new business venture to invest in alternative investments, including the potential acquisition of collateralized loan obligation (CLO) managers and CLO equity. This initiative will deploy capital from Assured Guaranty's operating companies, including AGM, that management deems excess capital. These investments are expected to be admitted assets under statutory accounting policies and standards. In our stress case financial model, however, KBRA expects to treat these invested assets as unavailable, or substantially unavailable, to pay claims. KBRA will continue to monitor the company's progress in building out this fee-based platform and any potential impacts on AGM or other affiliate claims paying resources and risk profile.

KBRA also conducted a detailed review of AGM's governance, credit and risk management protocols and found them to be strong and reflecting best practices. AGM has a proven management team and a well-developed governance framework.

This rating is based on KBRA's [Financial Guaranty Rating Methodology](#) dated December 18, 2015.

### Key Rating Strengths

- Demonstrated ability to withstand KBRA's conservative stress case loss assumptions across the breadth of its insured portfolio.
- The substantial and continuing runoff in structured finance components of the company's portfolio should continue to moderate risk. Structured finance exposure is now \$11.9 billion, down nearly 87% from \$91.4 billion at year-end 2009.
- A mature and high-functioning operating platform supported by strong governance and risk management systems.
- A tested management team that is well positioned to address future portfolio risk issues should they develop given their experience through the credit crisis.

### Key Rating Concerns

- The impaired components of AGM's portfolio could experience losses approaching or exceeding the levels of stress case losses that KBRA assumed in our rating analysis.
- Significant industry risks are characterized by narrow credit spreads, low interest rates, vigorous competition and the increased loss profile manifested in the public finance market.
- Management is returning capital to holding company shareholders through ordinary dividends and a stock redemption plan from AGM. This capital extraction from AGM could place downward pressure on the rating if portfolio risk levels increase rapidly or are not visible in time to limit management's future dividend practices despite management's stated intent to not take any capital management actions that fail to maintain or improve AGM's ratings and trading value.

## Rating Summary

A key element of KBRA's analysis of AGM is testing the company's ability to provide for all claims under conservative stress case assumptions. The table below summarizes how KBRA segmented AGM's portfolio and stressed each component. The portfolio segments were (i) Puerto Rico, (ii) RMBS, (iii) other distressed credits, and (iv) the balance of the insured portfolio (Monte Carlo simulation). The table shows the net par outstanding of each of these segments and the assumed estimated stress losses on a future value basis incorporated within KBRA's analysis. These stress case losses do not represent KBRA's forecast of expected claims but were developed to reflect KBRA's best estimate of the level of losses that a AA+ rated entity should be able to meet so that an investor holding a bond insured by AGM would not expect to suffer principal and interest losses under these assumed conditions.

### Stress Loss Treatment by Portfolio Segment (\$ in millions)

AGM Portfolio Segment	Net Par Insured 6/30/2016	Financial Guaranty Stress Losses <sup>1</sup> (Future Value)	Comments
Puerto Rico	\$2,138	\$968 (Stress Case I) \$957 (Stress Case II)	<b>Stress Case I</b> - Severities range from 10% to 55% based upon the issuer, realized annually as debt service is due, includes incremental severities of 15% in the first three years <b>Stress Case II</b> - 5-year debt service moratorium (50% subsequent recovery) followed by severities of 7.5% to 30% based upon issuer
RMBS	\$4,053	\$1,471	Individually analyzed under KBRA's RMBS methodology
Distressed credits	\$198	\$79	Stress losses based on KBRA estimated severities
Balance of portfolio	\$116,854	\$1,350	Monte Carlo simulation losses
<b>Totals</b>	<b>\$123,243</b>	<b>\$3,868 (Stress Case I) \$3,857 (Stress Case II)</b>	<b>Aggregate stress losses incorporated in Bond Insurer Financial Model</b>

<sup>1</sup> These are stress case loss assumptions that support an overall AA+ rating on the insured portfolio. KBRA is not forecasting this level of losses for AGM.

The bulk of AGM's insured portfolio (95%) was analyzed with KBRA's Monte Carlo simulation model. KBRA's Monte Carlo simulation model runs a series of 100,000 paths where each path assesses the probability of future defaults for each credit in each year of its remaining life. If a credit defaults in a particular path, a sector-specific severity assumption is applied against the amount of debt outstanding at that point in time to calculate a loss amount. The model runs 100,000 paths to produce a broad distribution of results. We focus on the tail of this distribution to construct a stress analysis which is reflected in the table above.

In our opinion, the aggregate of stress losses shown above (\$3.9 billion on a future value basis over a 35 year period) represents that level of losses that AGM would need to cover to achieve a AA+ insurance financial strength rating. We assessed AGM's ability to meet these losses in the KBRA Bond Insurer Financial Model. The financial model begins with an asset base equal to AGM's claims paying resources according to KBRA's definition, which is \$4.7 billion. For the financial model, this amount has been further reduced by the \$300 million stock redemption plan approved by the New York State Department of Financial Services on November 25, 2016. These resources, plus a conservative estimate of installment premiums and interest earnings, must be sufficient to provide for the stress level claims and all other expenses. Based upon KBRA's model assumptions, AGM was projected to be able to pay all claims and expenses in full and on time under this scenario with a comfortable balance remaining, which is an outcome consistent with the AA+ KBRA rating.

KBRA will continue to review AGM's rating and its performance related to portfolio quality, financial strength, and industry trends on an ongoing basis, but no less than annually.

## **Outlook: Stable**

AGM's declining portfolio risk and improving leverage ratios provide a stable framework for the AA+ rating. Furthermore, KBRA's stress case loss analysis incorporates significant deterioration in the distressed sectors of AGM's portfolio from current performance. If ultimate losses do not approach or exceed these levels, downward pressure on the rating should be minimal. In KBRA's view, the following factors may contribute to a rating upgrade:

- Market factors that support consistent growth in claims-paying resources that include, for example, widening credit spreads, firmer pricing conditions, and improved and sustainable profitability.
- Further development of a low-risk insured portfolio with limited losses relative to claims-paying resources when subjected to KBRA's loss simulation and financial model.
- Favorable developments related to distressed structured finance and Puerto Rico exposures.

In KBRA's view, the following factors may contribute to a rating downgrade:

- Market-wide increases in municipal default and severity rates and deterioration in the default and severity rates expected by KBRA within AGM's insured portfolio.
- Prolonged credit defaults over time that have the potential to exceed KBRA's modeled stress case expectations.
- Significant changes in AGM's senior management team or business strategy.
- Payment of dividends from AGM in a manner which negatively impacts claims-paying resources.
- Portfolio acquisitions that, in KBRA's opinion, introduce excessive risk into AGM.

# Key Rating Determinants

## Rating Determinant 1: Corporate Assessment

### Background

AGM's ultimate parent is Assured Guaranty Ltd., or AGL. AGL, together with its subsidiaries, Assured Guaranty or Assured, is a Bermuda-based holding company incorporated in 2003 that provides financial guaranty products, through its subsidiaries, to the U.S. and international public finance, infrastructure and structured finance markets.

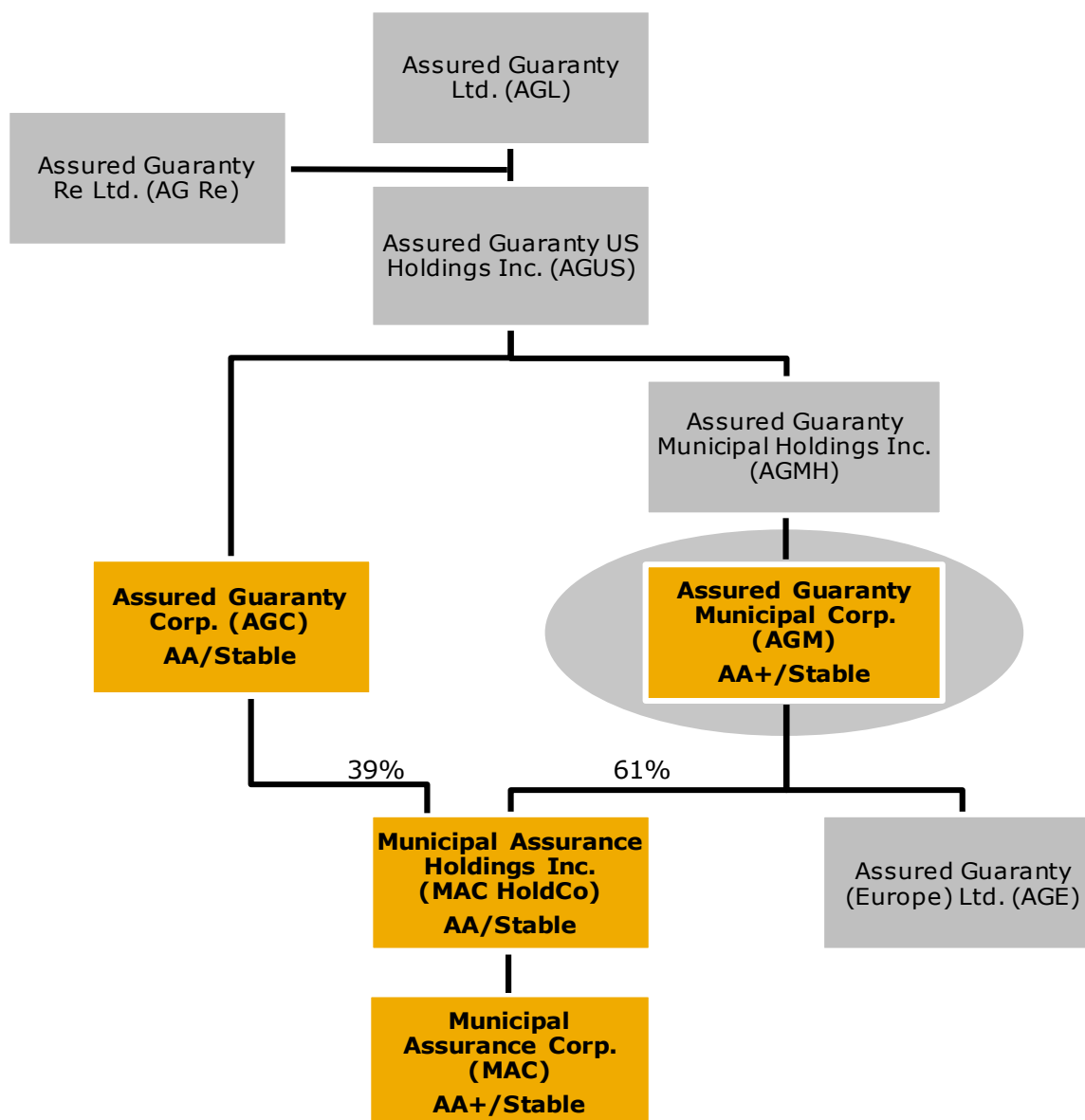
On July 1, 2009, Assured acquired Financial Security Assurance Holdings Ltd., whose principal insurance subsidiary was Financial Security Assurance Inc. (FSA). Assured continues to operate FSA and has changed its name to Assured Guaranty Municipal Corp. (AGM).

Assured Guaranty now conducts its financial guaranty business principally through five insurance companies. The most active writer is AGM which also owns Assured Guaranty Europe (AGE) based in the UK. Together they provide financial guaranty policies on global public finance and infrastructure debt obligations. AGM insured \$7.5 billion of direct par in the first six months of 2016. The other AGL operating companies are Assured Guaranty Corp. (AGC), rated AA, Stable Outlook by KBRA; Municipal Assurance Corp. (MAC), rated AA+, Stable Outlook by KBRA and Assured Guaranty Re Ltd. (AG Re), not rated by KBRA.

### Ownership Structure

AGM is a wholly-owned subsidiary of Assured Guaranty Municipal Holdings Inc. (AGMH), an intermediate holding company and a wholly owned subsidiary of AGL. AGM was founded in 1985 and is domiciled in New York. It is the largest operating subsidiary of AGL. AGM owns 100% of the common stock of AGE and facilitates its operations through a series of support agreements. AGM also owns 61% of Municipal Assurance Holdings Inc. (MAC HoldCo) while its affiliate AGC owns 39%.

AGM is highlighted in the corporate organizational chart below which shows its relationship with these entities.



## Strategy

AGM's strategy is integrated with that of the other operating companies of Assured Guaranty. Each of the operating companies is organized to originate financial guaranty business in distinct market segments, although there is some overlap on certain legacy exposures. AGM underwrites U.S. municipal and international infrastructure business. MAC underwrites U.S. municipal business exclusively and focuses on smaller to medium size transactions in lower risk sectors. AGC underwrites primarily structured finance business but has done only a few transactions since the credit crisis. AG Re provides reinsurance capacity in all of these areas. KBRA notes that AGM and AGC have legacy exposures that differ from the risk profile of their current strategies.

AGM has been the most active writer of new business within the group. The number of international infrastructure transactions underwritten by AGM has been low in recent years but management expects to play an increasing role in this sector in coming years.

As previously noted, Assured Guaranty recently announced the launch of a new business venture to evaluate and potentially acquire collateralized loan obligation (CLO) asset managers and CLO equity. This initiative will deploy capital from Assured Guaranty's operating companies, including AGM, that management deems excess capital. These investments are expected to be admitted assets under statutory accounting policies and standards. In our stress case financial model, however, KBRA expects to treat these invested assets as unavailable, or substantially unavailable, to pay claims. KBRA will continue to monitor the company's progress in building out this fee-based platform and any potential impacts on AGL's claims paying resources and risk profile.

## Corporate Governance

The Board of Directors of AGL ("the Board") is responsible for the corporate governance of all of its subsidiaries, including AGM. The AGL Board consists of 10 members and, except for the CEO who is a Board member, the Board considers all of the other directors to be independent according to the listing standards of the New York Stock Exchange. KBRA notes that all directors have extensive professional backgrounds and appropriate qualifications for the oversight of a financial guaranty insurer.

The Board carries out its responsibilities through the operation of 6 committees: Audit, Compensation, Finance, Nominating and Governance, Risk Oversight, and Executive. The CEO sits only on the Executive Committee, which meets in between Board meetings exclusively in the event time-sensitive matters arise that require Board deliberation and authority prior to the next scheduled meeting of the full Board. In 2016, all of the committees met at least four times, except for the Executive Committee, which met once.

In KBRA's view, a Board level committee that focuses exclusively on risk, such as AGL's Risk Oversight Committee, better positions a company to maintain a high level of focus on this area, one that is critically important for a financial guaranty insurance company.

The Board is responsible for defining the business strategy for the overall group of companies, meets quarterly to review progress towards meeting operational objectives and conducts separate sessions to discuss current or emerging issues that might impact the business.

The roles of Chairman and CEO are separate. The Board members meet regularly without the presence of the CEO which, in KBRA's view, contributes to the Board's independence.

## Risk Management

Assured has established a risk management framework under the supervision of the Board's Risk Oversight Committee (ROC). The Risk Management Department is responsible for the oversight of the framework under the supervision of the Chief Risk Officer (CRO) and the Portfolio Risk Management Committee (PRMC). The PRMC is a management-level committee that consists of the CEO, CRO, Chief Surveillance Officer, Chief Credit Officer, General Counsel, CFO, President of AG Re, President of AGE, and the Executive Officer.

The Risk Management Department is responsible for providing the PRMC with research and data used to establish, monitor and reassess policies and procedures on a regular basis. The PRMC meets about four times a year to establish risk policies, risk limits, credit standards and committees, approve new products and to review the insured portfolio and market trends. All decisions made by the PRMC are reported to the ROC. This ensures that representatives of Assured Guaranty's Board are adequately informed about risk positions and industry trends. These reporting mechanisms add discipline to the risk management process and enhance the ability of the Board and senior management to effectively execute company strategy.



The Risk Management Department is responsible for preparing the annual corporate-wide risk appetite statement which incorporates AGM. The Board reviewed and approved the most recent risk appetite statement in May 2016. The company continues to identify preservation of capital, maintenance of the highest possible insurance financial strength ratings and consistent market access as key corporate objectives.

The Risk Management Department is also responsible for maintaining and updating AGM's internal economic capital model. This model assesses the level of capital required to provide for stress scenario losses developed by the company and applied to AGM's insured portfolio. The company endeavors to maintain a capital cushion above these stress losses. The economic capital analysis is performed at least quarterly as well as prior to the payment of any ordinary or extraordinary dividend as part of the company's objective to pursue only those capital management actions that maintain or improve ratings or trading values.

The Risk Management Department is also responsible for Enterprise Risk Management across Assured.

## **Surveillance**

AGM's surveillance of its insured risk is integrated with the surveillance process for all of Assured. Surveillance follows a set of priorities that determine how frequently credits are reviewed. Upon review, each credit is assigned to one of six surveillance categories ranging from 1 to 6 that also determine the level of ongoing review. Category 1 and 2 credits are considered to be performing in accordance with expectations and are generally reviewed on an annual or semi-annual basis. Category 3 generally requires quarterly reviews. At Category 4 the intensity of review increases further and generally requires the creation of a team that includes legal resources. Categories 5 and 6 are considered impaired and require the establishment of loss reserves. These exposures are also monitored by the Workout Committees. Further, a credit review can also be triggered by an event impacting individual or regional exposures, such as a natural disaster, or an event impacting an entire sector such as a change in federal law.

Written credit reports document the surveillance review. KBRA reviewed the surveillance reports for a selection of AGM credits in the three lowest surveillance categories (4, 5, and 6). In addition, for many sectors, AGM's entire exposure to the sector is reviewed in one report.

Individual credit reports and sector updates are presented to the Risk Management Committee (chaired by the Chief Surveillance Officer) at monthly meetings. The agenda for these meetings is generally centered on the surveillance group's compliance with its review schedule and on credit and sector risk reports. Any proposed internal credit rating changes are discussed and determined through this committee process. Additional presentations are made by the surveillance group to the ROC of the Board of Directors on a quarterly basis. KBRA views the internal reporting process as comprehensive and as providing a sufficient mechanism to inform senior management about the condition of the insured portfolio.

## Rating Determinant 2: Insured Portfolio and Modeling Analysis

The following section contains a detailed review of AGM's insured portfolio followed by a discussion of KBRA's modeling and stress analysis of the portfolio. All par exposure numbers shown below are on a statutory basis as of June 30, 2016.

### Insured Portfolio, Gross and Net

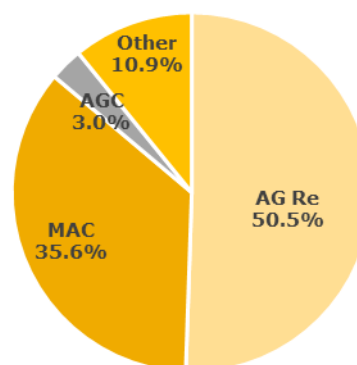
AGM's insured portfolio has a total of \$222.8 billion of gross par and \$123.2 billion of net par outstanding. Slightly less than half, nearly \$100 billion or 44.7%, is reinsured, as discussed further below. The portfolio remains diversified with over 8,500 individual risks with an average size of \$14.5 million on a net par basis. The insured portfolio includes a range of public finance, international infrastructure, and structured finance sectors and contains credit characteristics similar to those at the last portfolio review. The portfolio continues to run-off with net par outstanding declining by just over 12% since June 30, 2015, as a result of scheduled debt maturities, bond refunding activity, and loss mitigation efforts.

Although a substantial amount of par is reinsured, the bulk of this is to AGM's affiliates, MAC and AG Re. MAC has reinsured 35.6% and AG Re has reinsured 50.5% of total ceded par, respectively, or 86.2% of total cessions. As a result of the Radian acquisition by AGC in April 2015, 3% of ceded par previously reinsured by Radian is now reinsured by AGC.

AGM Portfolio, Par Outstanding (\$ billions)		
6/30/2016		
<b>Gross Par</b>		\$ 222.8
<b>Ceded Par</b>		99.6
AG Re	\$ 50.3	
MAC	35.5	
AGC	3.0	
Other	10.8	
<b>Net Par</b>		\$ 123.2

Note: Bond purchases are excluded from gross and net par.

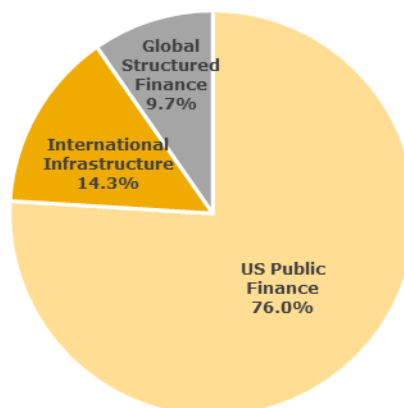
**Distribution of AGM Ceded Par**



### Net Par Exposure by Type

The net retained insured portfolio consists of both public finance and structured finance obligations. Of total net par of \$123.2 billion, 76.0% or \$93.6 billion consists of U.S. public finance exposures, 14.3% or \$17.7 billion consists of international infrastructure exposures (includes international public finance), and 9.7% or \$11.9 billion consists of global structured finance exposures. The portfolio composition remains relatively unchanged since last review, however, global structured finance exposures now represent less than 10% of total net par.

## Distribution of AGM Net Par



## U.S. Public Finance

A breakout of the U.S. public finance exposure by sector and rating is shown below. The distribution across sectors has not changed meaningfully as the overall portfolio decreases in size.

US Public Finance, Net Par Outstanding (\$ billions)			
Sectors	6/30/2016		
General Obligation	\$	34.1	36.5%
Tax-supported		21.5	22.9%
Municipal Utility Revenue		17.5	18.7%
Transportation Revenue		9.8	10.4%
Health Care Revenue		5.6	6.0%
Education/University		2.8	2.9%
Housing Revenue		1.0	1.1%
Other Public Finance		0.8	0.9%
Infrastructure Finance		0.4	0.5%
Investor Owned Utilities		0.0	0.0%
<b>Total</b>	\$	93.6	100.0%

A breakout of AGM's internal ratings of its U.S. public finance exposure is shown in the table below. As of June 30, 2016, 26.3% of U.S. public finance par now falls within the BBB category, compared with 17.4% as of last portfolio review, the only rating category to experience an increase, in both par and percentage terms. This is primarily due to internal downgrades, namely to Pennsylvania school district credits and exposures to the State of Illinois and State of New Jersey, in combination with the continuing run-off across the portfolio. As a whole, the weighted average internal rating remains in the A category. Below investment grade (BIG) rated exposures, as a percentage of U.S. public finance net par, is 2.8%, down from nearly 3.5% as of last portfolio review.

US Public Finance, Net Par Outstanding (\$ billions)				
Rating Category <sup>(1)</sup>	6/30/2016		6/30/2015	
AAA	\$	0.3 0.3%	\$	0.7 0.7%
AA		16.0 17.0%		21.5 21.1%
A		50.0 53.4%		58.2 57.3%
BBB		24.7 26.3%		17.7 17.4%
BIG		2.7 2.8%		3.5 3.5%
<b>Total</b>	\$	93.6 100.0%	\$	101.6 100.0%

<sup>(1)</sup> AGM Internal Rating

## Structured Finance

AGM has not written any structured finance business since the beginning of the credit crisis. This segment of the portfolio has declined significantly since that time. At year-end 2009, AGM's structured finance portfolio was \$91.4 billion. As of June 30, 2016, it was \$11.9 billion, a decline of nearly 87%. Since KBRA's last review, AGM's structured finance exposures have declined 36.5%.

Structured finance exposures include both U.S. and international risks. For analytical purposes, KBRA assessed the structured finance portfolio in two components, Non-RMBS and RMBS.

## Non-RMBS Portfolio

The non-RMBS portfolio is the larger of the two components at approximately \$7.9 billion, down nearly 42% from \$13.5 billion at June 30, 2015. The non-RMBS portfolio largely consists of IG CDOs (\$4.9 billion) and CLOs (\$2.2 billion). These sectors are characterized by short remaining tenors and higher credit quality.

The balance of the non-RMBS portfolio consists of with a broader distribution of credit ratings and includes a small mix of commercial and consumer ABS and securitizations of perpetual preferred securities of larger international banks (PERPs). Nearly 95% of the non-RMBS portfolio is rated investment grade, with 83% rated AAA.

Non-RMBS Portfolio, Net Par Outstanding (\$ billions)				
Sectors	6/30/2016		Rating Category <sup>(1)</sup>	6/30/2016
IG Corp CDOs	\$	4.9 61.8%	AAA	\$ 6.6 83.3%
CLOs		2.2 28.1%	AA	0.7 8.5%
PERPs		0.5 6.4%	A	0.1 1.4%
Other		0.3 3.7%	BBB	0.1 1.9%
<b>Total</b>	\$	7.9 100.0%	BIG	0.4 5.0%
			<b>Total</b>	\$ 7.9 100.0%

<sup>(1)</sup> AGM Internal Rating

## Residential Mortgage Backed Securities (RMBS)

The sector profile of the RMBS portfolio is shown below. At June 30, 2016, AGM had \$4.1 billion of net RMBS exposure outstanding. RMBS net par outstanding decreased 23% since KBRA's last portfolio review at June 30, 2015. The distribution across sub sectors did not change significantly.

RMBS Portfolio, NPO (\$ billions)			
Sectors	6/30/2016		
Subprime	\$	2.0	49.9%
HELOCs		0.8	20.5%
Alt A		0.5	11.8%
Int'l RMBS		0.4	10.9%
Closed-End Seconds		0.2	3.7%
Option ARMs		0.1	2.1%
Prime/Other		0.0	1.1%
<b>Total</b>	\$	4.1	100.0%

## International Infrastructure

AGM's international infrastructure portfolio, which includes international public finance, has a total of \$17.7 billion of net par outstanding as of June 30, 2016. The insured net portfolio consists of: 46.6% infrastructure finance, 29.3% regulated utilities, and 24.1% other public finance. The majority of this exposure is rated internally within the BBB category by AGM. Just under 5% is rated below investment grade.

International Infrastructure Portfolio, Net Par Outstanding (\$ billions)				
Sectors	6/30/2016		Rating Category <sup>(1)</sup>	6/30/2016
Infrastructure Finance	\$	8.2 46.6%	AAA	\$ 0.5 3.0%
Regulated Utilities		5.2 29.3%	AA	0.1 0.8%
Other Public Finance		4.3 24.1%	A	4.9 27.7%
<b>Total</b>	\$	17.7 100.0%	BBB	11.3 63.8%
			BIG	0.8 4.7%
			<b>Total</b>	\$ 17.7 100.0%

<sup>(1)</sup> AGC Internal Rating

## Portfolio Stress Analysis

KBRA subjected AGM's insured portfolio to a conservative stress analysis. A discussion of the stress losses applied to each component of the portfolio is provided below.

### Puerto Rico Stress Case Losses

AGM has substantial exposure to the Commonwealth of Puerto Rico. As of June 30, 2016, AGM has approximately \$2.1 billion in aggregate net par exposure to the Commonwealth across its various bond issuing entities, representing under 2% of AGM's total portfolio. The largest exposures are to the Commonwealth's General Obligation, to the Highways and Transportation Authority, and to the Electric Power Authority, which total \$720, \$508, and \$429 million, respectively.

In light of the Commonwealth's significant financial strain that remains unresolved, KBRA applied stress losses to all of AGM's insured Puerto Rico debt. KBRA developed two conservative stress case scenarios for Puerto Rico exposures to assess the impact of different potential claims payment patterns and the varied

insured debt profiles of the bond insurers that KBRA rates. Further, under AGM's stress case scenarios, KBRA assumed that two of AGM's external reinsurers would not perform under these scenarios and those reinsured losses would be borne by AGM.

**Stress Case I:** KBRA applied severities ranging from 10% to 55% to different Commonwealth issuers and assumed the losses to AGM would be realized annually as insured principal and interest comes due. The stress loss severities for Case I include an incremental 15% severity in the first three years (through 2019).

Under these assumptions applied by KBRA, total net losses to AGM were \$968 million on an undiscounted basis over the life of the insured Puerto Rico debt.

**Stress Case II:** KBRA also tested AGM's ability to withstand a modified stress that front-loaded a significant proportion of stress losses by assuming a complete moratorium on all debt service payments for the first five years. In this stress case, Puerto Rico makes *no* debt service payments over the first five years (through 2021) with AGM paying all of the insured principal and interest payments. Recoveries on this foregone debt service are assumed to be 50% and are received ratably by AGM over the subsequent five years (years 6 through 10). Further, severities on the balance of insured debt service coming due after the moratorium period (i.e. years 6 and beyond) ranged from 7.5% to 30%, lower than the ongoing, annual severities applied in Stress Case I.

Nominally, the aggregate amount of unrecovered insured debt payments under the stress case was \$957 million, slightly lower than Stress Case I losses of \$968 million, although the financial effects to AGC are somewhat more onerous in the KBRA financial model due to a larger proportion of nearer term losses.

The table below compares the assumed loss payout pattern for AGM for Stress Case I and Stress Case II in five-year increments. The negative "losses" in years 2022-2026 represent the net impact of 50% recoveries on claim payments made during the initial moratorium period of 2017-2021.

Puerto Rico Stress Case Losses							
\$ thousands	Years						Total
	2017-21	2022-26	2027-31	2032-36	2037-41	2042-46	
Stress Case I	\$ 348,880	\$ 216,528	\$ 190,058	\$ 166,880	\$ 30,495	\$ 15,602	\$ 968,443
Stress Case II	995,773	(338,703)	141,160	125,160	22,871	11,701	957,963

As the newly appointed PROMESA oversight board becomes fully operational and takes actions which change the credit profile for Puerto Rico debt, KBRA will review the assumptions within our stress cases.

## RMBS Stress Case Losses

KBRA's RMBS team analyzed substantially all of AGM's RMBS portfolio on an individual transaction basis. KBRA obtained transaction detail at the CUSIP and insured tranche level from AGM which represented the individual insured positions outstanding as of June 30, 2016. Collateral pools supporting each transaction were stressed at the individual loan level by assuming economic conditions that produce a 40% decline in residential housing values with accompanying increases in delinquency, default and severity rates. This analysis was consistent with KBRA's [U.S. RMBS Rating Methodology](#) dated July 7, 2016. KBRA then assigned the residential loan level losses to individual tranches based on the waterfall provisions of the RMBS trusts and further allocated losses to AGM on those positions they insure. The representation and warranty agreements AGM has with several financial institutions were factored into this analysis on a transaction level basis and served to decrease the ultimate losses to AGM.

This analytical approach imposes a uniform, simultaneous shock on each transaction within the RMBS portfolio that KBRA believes is a more appropriate approach than Monte Carlo analysis when considering a

portfolio of largely distressed RMBS which has exhibited high-levels of intra-asset correlation historically. In KBRA's opinion, this assumed level of stress losses applied to the RMBS portfolio is consistent with a AA+ rating level for a diversified portfolio.

The losses attributed to each insured RMBS position of AGM were aggregated by year. Over the term of the insured RMBS the total amount of aggregate losses assessed against this exposure was \$1.47 billion on a future value basis. This aggregate annual stream of loss payments was added to all other stress loss payments that became annual cash outflows in the KBRA Bond Insurer Financial Model.

## **Distressed Credits**

KBRA estimated specific stress losses for a handful of distressed or impaired municipal exposures. These consisted of six US public finance credits.

In the financial model, net outflows in these cases totaled approximately \$78.8 million on a future value basis.

## **Monte Carlo Simulation Model**

KBRA uses a Monte Carlo simulation model to quantify the amount of stress scenario claims within the AGM insured portfolio. KBRA views this as the most appropriate approach for modeling loss expectations for large, diverse portfolios typical of the financial guaranty industry.

The model uses the assigned rating and sector of each insured credit to simulate default and severity performance over the remaining life of the portfolio and includes conservative assumptions for refunding activity. KBRA's analysts assessed AGM's internal ratings by sector and made various adjustments. In this process, KBRA selected a cross-section of credits to review from various sectors within AGM's insured portfolio. To conduct these reviews, KBRA obtained AGM's internal surveillance reports for each credit and supplemented them with independent information sources.

The Monte Carlo model produces a series of 100,000 paths where each path assesses the probability of future defaults for each credit in each year of its remaining life. If a credit defaults, a sector-specific severity assumption is applied against the amount of debt outstanding at that point in time to calculate loss amount. The model generates 100,000 paths to produce a broad distribution of results. We focus on the tail of this distribution to construct a stress analysis. For AGM, the aggregate of all annual loss payments at the 98.5% confidence level, or that level associated with a AA+ rating, was \$1.35 billion over the life of the portfolio on a future value basis compared to nearly \$4.7 billion of current claims paying resources.

## **Bond Insurer Financial Model**

KBRA assesses the ability of a financial guarantor to pay claims in a financial model. The model uses AGM's Claims Paying Resources (defined in the "Claims Paying Resources" section below) as a beginning base of assets. These assets earn interest at rates adjusted downward by KBRA from the company's current yield levels to offset the incremental yield the company realizes from its loss mitigation bond purchase strategy and to incorporate projected stress case credit losses in the asset portfolio. The company's estimate of future installment premiums (KBRA haircut by 10%) provides additional resources. In addition, AGM's beginning asset base reflects the full pay down of surplus notes by affiliate company MAC (AA+/Stable) at the end of the second quarter 2016, which generated cash and fixed income security proceeds to AGM of approximately \$285 million.

The model assesses the ability of the company with these defined resources to pay annual stress losses and other expenses through the 35-year forecast period. For AGM, the stress losses (all on a future value basis) were the sum of (i) Puerto Rico stress losses of \$957-\$968 million, (ii) RMBS stress losses of \$1.47



billion, (iii) aggregate annual losses generated in the loss profile KBRA developed from the Monte Carlo simulation model of \$1.35 billion, and (iv) other net stress outflows of about \$78.8 million described above under "Distressed Credits."

Given the level of stress losses assumed in this analysis, the company is assumed by KBRA to go into run off immediately and expenses begin to decline after year five.

AGM is able to pay all claims and other expenses in this analysis with a comfortable amount of assets remaining at the end of the 35 year forecast period. In KBRA's opinion, this result is consistent with a AA+ rating.

## Rating Determinant 3: Claims Paying Resources and Financial Profile

KBRA focuses its analysis of financial resources on statutory results as it is our opinion that statutory accounting principles provide the most appropriate benchmark for assessing an insurer's ability to meet policyholder obligations. Unless otherwise noted, all amounts are based on statutory reports as filed or reported by the company.

### Claims Paying Resources

KBRA defines claims paying resources (CPR) as the sum of statutory policyholder surplus, contingency reserves, loss and loss adjustment reserves and unearned premium reserves. As of June 30, 2016, AGM's CPR, before adjustments, totals \$5.2 billion. However, KBRA's definition of CPR also excludes certain investments in affiliates, namely the surplus notes of Assured Guaranty Corp. as well as the equity of MAC because KBRA views these assets as illiquid and deeply subordinate.<sup>2</sup> KBRA includes AGM's equity holdings in AGE in its definition of CPR because AGM owns 100% of AGE, AGM reinsures over 90% of AGE's insured exposure and AGM guarantees all AGE net par. Therefore, all AGE exposure is included in AGM's net par and, accordingly, in KBRA's portfolio analysis of AGM. After all of these adjustments, AGM's CPR is \$4.7 billion and this amount is used as the beginning base of assets in KBRA's Bond Insurer Financial Model.

KBRA also notes that AGM's total insured portfolio is running off more rapidly than new business production and leverage ratios continue to decline.

Select AGM Statutory Balance Sheet Data				
\$ Thousands	6/30/2016	12/31/2015	12/31/2014	12/31/2013
<b>Claims paying resources:</b>				
Unearned premium reserves	\$1,245,784	\$1,341,063	\$1,438,865	\$1,489,865
Loss & LAE reserves	332,686	438,134	487,177	339,719
Contingency reserve	1,215,854	1,182,629	1,310,796	1,586,565
Policyholder surplus	2,440,839	2,440,809	2,266,850	1,733,149
Adjustments†	(512,778)	(776,269)	(704,657)	(651,534)
<b>Total claims paying resources (KBRA definition)</b>	<b>\$4,722,385</b>	<b>\$4,626,366</b>	<b>\$4,799,031</b>	<b>\$4,497,765</b>
Net statutory par outstanding (NPO)	\$123,873,000	\$133,409,000	\$151,320,000	\$171,279,000
Net statutory debt service outstanding (NDSO)	\$191,278,000	\$206,779,000	\$234,490,000	\$263,089,000
<b>Leverage: NPO/Claims paying resources (X)</b>	<b>26x</b>	<b>29x</b>	<b>32x</b>	<b>38x</b>
<b>Leverage: NDSO/Claims paying resources (X)</b>	<b>41x</b>	<b>45x</b>	<b>49x</b>	<b>58x</b>

Source: AGM statutory statements and financial supplements

† Reflects investment in MAC and AGC surplus note since 2013; reflects investment in MAC surplus notes in 2013-2015 (fully repaid in 2Q16)

<sup>2</sup> KBRA does not reflect the projected future performance of the AGC surplus notes in accordance with their terms in our financial model because KBRA rates AGC at AA which is consistent with the view that AGC can satisfy scheduled interest on their surplus notes.



## Balance Sheet

Over the last twelve months, AGM's balance sheet has remained relatively stable relative to prior reporting periods, with a strong liquidity position and a substantial policyholder surplus balance. The amounts reported under common stock reflect AGM's ownership of MAC (61%) and AGE (100%).

As of June 30, 2016, net unearned premium reserves (after amounts ceded to reinsurers of \$809 million) are the largest component of AGM's balance sheet liabilities at \$1.2 billion. Loss reserves declined in the first six months of 2016, primarily due to the payment of losses on previously reserved RMBS credits.

<b>AGM Statutory Balance Sheet</b>				
<b>\$ Thousands</b>	<b>6/30/2016</b>	<b>12/31/2015</b>	<b>12/31/2014</b>	<b>12/31/2013</b>
Bonds	\$4,221,826	\$4,234,302	\$4,331,217	\$3,921,116
Stocks (Investments in Affiliates)	474,583	674,889	619,149	535,666
Cash & short term investments	387,065	255,392	334,483	647,084
Other invested assets and receivables	376,055	471,565	516,163	419,449
<b>Total cash and invested assets, net admitted</b>	<b>\$5,459,528</b>	<b>\$5,636,148</b>	<b>\$5,801,011</b>	<b>\$5,523,317</b>
Investment income due and accrued	41,029	40,081	41,911	37,916
Deferred tax asset	135,346	91,893	93,697	64,190
Other assets	29,733	20,355	24,603	86,713
<b>Total Assets, net admitted</b>	<b>\$5,665,636</b>	<b>\$5,788,476</b>	<b>\$5,961,222</b>	<b>\$5,712,135</b>
Loss and LAE Reserves	332,686	438,134	487,177	339,719
Unearned Premium Reserve	1,245,784	1,341,063	1,438,865	1,489,865
Contingency reserve	1,215,854	1,182,629	1,310,796	1,586,565
Other liabilities	430,474	385,842	457,534	562,836
<b>Total Liabilities</b>	<b>\$3,224,797</b>	<b>\$3,347,667</b>	<b>\$3,694,372</b>	<b>\$3,978,986</b>
Common capital stock	15,000	15,000	15,000	15,000
Surplus Notes	-	-	25,000	75,000
Gross paid-in and contributed surplus	776,953	776,953	776,876	778,266
Unassigned Funds	1,648,886	1,648,856	1,449,974	864,883
<b>Policyholder Surplus</b>	<b>\$2,440,839</b>	<b>\$2,440,809</b>	<b>\$2,266,850</b>	<b>\$1,733,149</b>
<b>Total Liabilities and Policyholder Surplus</b>	<b>\$5,665,636</b>	<b>\$5,788,476</b>	<b>\$5,961,222</b>	<b>\$5,712,135</b>
Cash & short term assets/Total assets (%)	6.8%	4.4%	5.6%	11.3%
Bonds/Total assets (%)	74.5%	73.2%	72.7%	68.6%

Source: AGM Statutory Statements

## Investments

As of June 30, 2016, AGM had total invested assets of \$5.0 billion, including \$411 million of cash and short term investments. On a statutory basis the average pre-tax book yield is 3.75%. The overall portfolio yield is enhanced by the company's loss mitigation strategy of purchasing AGM-wrapped bonds where AGM has paid and/or expects to pay claims. These non-investment grade positions typically generate higher yields and currently comprise approximately 10% of the portfolio.

Excluding loss mitigation bonds, AGM's investment portfolio consists of high quality, marketable securities. The largest segment of the investment portfolio is municipal bonds which consisted of 52% of the entire investment pool while corporate bonds and mortgage-backed securities represented 11% and 10% of the total portfolio, respectively.

**AGM Investment Portfolio Composition (6/30/2016)**

\$ Millions	Sector	Fair Value	% of portfolio	---Book Yields*---	
				Pre-tax	After-tax
	State and Political Subdivisions	\$2,615	52%	3.83%	3.56%
	Insured State and Political Subdivision	249	5%	4.64%	4.37%
	U.S Treasury Securities	9	0%	3.67%	2.38%
	U.S Agency Obligations	10	0%	3.77%	2.45%
	Corporate Securities	558	11%	4.33%	2.82%
	RMBS	479	10%	5.73%	3.72%
	CMBS	225	4%	3.39%	2.20%
	Asset-backed securities	314	6%	3.47%	2.25%
	Foreign Governments	161	3%	2.16%	1.40%
	<b>Total Fixed Maturities</b>	<b>\$4,620</b>	<b>92%</b>	<b>4.02%</b>	<b>3.33%</b>
	Short term investments and cash	411	8%	0.03%	0.02%
<b>Grand Total†</b>		<b>\$5,031</b>	<b>100%</b>	<b>3.75%</b>	<b>3.11%</b>

Source: AGM financial supplement

\* Reflects yields on consolidated AGM/MAC investment portfolio and excludes yield on cash.

† Includes loss mitigation bonds with a par value of \$857 million and a carrying value of \$549 million.

## Income Statement

AGM's underwriting results have fluctuated over the last several years reflecting large rep and warranty loss recoveries related to certain RMBS exposures as well as the cession of a significant portion of the Company's insured portfolio to AGL affiliate, MAC. For the first half of 2016, net income trended upward relative to prior periods, bolstered by refunding activity and only marginal net increases to loss and LAE reserves. On an annualized basis, return on surplus was nearly 15% for the six months ending June 30, 2016.

The low level of premium volume reflects weak new business activity across the entire financial guaranty market as industry participants continue efforts to increase penetration. Because of the challenging new business environment, AGM's low gross premium written has driven the company's reported expense ratio above historical benchmarks. While KBRA does not view AGM's expense ratio as a significant issue in the near term and also acknowledges the inherent lag between expense recognition and revenue generation, we will continue to monitor the company's efforts to manage its revenue/cost profile since KBRA views continued increases in AGM's expense ratio as unsustainable in the long-term.

**Select AGM Statutory Income Data**

\$ Thousands	6/30/2016	12/31/2015	12/31/2014	12/31/2013
Gross Premiums Written (GPW)	\$90,602	\$198,604	\$245,042	\$262,322
Net Premiums Written	56,965	141,842	173,887	(191,293)
Net premiums Earned (NPE)	134,445	222,958	203,133	296,018
Loss & loss adjustment expenses (L&LAE)	7,592	132,941	(120,663)	(56,914)
Other underwriting expenses	41,512	74,201	86,508	101,830
Total losses & operating expenses	49,104	207,142	(34,154)	44,916
Net underwriting gain (loss)	85,341	15,816	237,287	251,102
Net investment gain	70,418	199,410	159,261	230,009
Other income, net gain (loss)	24,543	55,330	9,243	(19,366)
<b>Earnings Before Taxes</b>	<b>180,302</b>	<b>270,556</b>	<b>405,791</b>	<b>461,744</b>
Net Income	\$122,065	\$216,695	\$303,884	\$339,635
Dividends Paid	\$127,000	\$214,800	\$160,000	\$163,000
Expense ratio (Underwriting exp. / GPW)	45.8%	37.4%	35.3%	38.8%
Loss ratio (L&LAE / NPE)	5.6%	59.6%	NM	NM
<b>Combined ratio</b>	<b>51.5%</b>	<b>97.0%</b>	<b>NM</b>	<b>NM</b>
Return on Surplus (ROS) Pre-tax basis	14.8%	23.0%	20.3%	53.3%
Return on Surplus (ROS) After-tax basis	10.0%	18.4%	15.2%	39.2%

Source: AGM statutory statements

## Dividends

AGM's ability to pay dividends is subject to limitations imposed by New York insurance law, which provides that a New York financial guaranty insurer generally cannot pay a dividend except out of the portion of the insurer's earned surplus that represents the net earnings, gains or profits which that insurer has not otherwise utilized. Additionally, without regulatory approval, a New York financial guaranty insurer may not pay dividends in aggregate during any 12-month period in excess of the lesser of 10% of its surplus and 100% of its adjusted net investment income for such 12-month period. Further, management has stated that they will not take any capital management actions, including the payment of ordinary or extraordinary dividends, that do not maintain or improve AGM's ratings or trading value.

Over the past three years AGM has up-streamed dividends at or near the maximum amount allowed. In 2015, AGM paid dividends of \$215 million; during the first six months of 2016, the company has paid dividends of \$127 million. As of Q3 2016, the total amount of dividends available for AGM to distribute in 2016 without regulatory approval is estimated by the company to be approximately \$244 million. Absent significant near-term changes in management strategy or market conditions, KBRA expects AGM to continue to pay the full amount of dividends permitted under New York insurance law. As noted previously, on November 25, 2016, the New York State Department of Financial Services approved a \$300 million stock redemption plan. Management has stated that they expect periodically to request the authority to repurchase additional shares of common stock from Assured Guaranty Municipal Holdings Inc., perhaps as frequently as annually.

AGM does not currently expect AGE to distribute any dividends in the near-term. U.K. corporate and insurance regulations impose no explicit dividend restrictions and, in general, permit the payment of dividends out of an entity's cumulative retained realized profits. However, since dividend payments reduce capital resources, AGE's future dividend capacity to AGM could effectively be limited by the Prudential Regulation Authority's insurance solvency requirements.

## Reinsurance

AGM, jointly with MAC and AGC, has entered into an aggregate excess of loss reinsurance facility with a number of reinsurers rated AA- or higher or who have posted collateral. The facility attaches when the group's combined net losses in investment grade US public finance exposures exceeds \$1.25 billion in aggregate. The reinsurers cover \$360 million of the next \$400 million of losses on a pro rata basis, while AGM, MAC, and AGC jointly retain the remaining \$60 million. The reinsurance agreement terminates on January 1, 2018 unless the Assured subsidiaries decide to extend it. Because of its joint nature and the potential for losses at MAC or AGC to limit the support available for AGM, this facility is not incorporated in KBRA's analysis of AGM's rating.

In addition, AGM cedes approximately 23% of its exposures to affiliate company, AG Re, a Bermuda-based reinsurer. KBRA reviewed AG Re's claims paying ability and risk profile as part of its rating analysis of AGM.

## Sutton Capital Trusts

In June 2003, AGM established four Custodial Trusts ("the Trusts") which issued an aggregate of \$200 million of preferred trust securities. The proceeds of the issuance were invested in highly rated commercial paper. AGM entered into an agreement with the Trusts whereby it is entitled in its sole discretion to deliver Preferred Stock to the Trusts in exchange for cash up to the \$200 million held in the Trusts.

A number of other financial guarantors successfully utilized similar capital support facilities during the credit crisis to augment their claims paying resources. In light of the very liquid investments in the Trusts

and the associated robust funding mechanism, KBRA includes \$200 million of capital support from the Trusts in its financial model analysis of AGM.

## Conclusion

AGM's AA+ rating, Stable Outlook, is based on the company's strong base of claims paying resources which can withstand KBRA's conservative stress case loss assumptions under the Bond Insurer Financial Model. AGM's rating also benefits from a tested management team supported by strong governance and risk management systems. The substantial and continuing runoff in the structured finance segments of the company's portfolio should continue to lower AGM's overall risk profile.

Balanced against these favorable trends are AGM's expected future dividend practices which could reduce the Company's capital resources, ongoing industry challenges in the face of a persistently low interest rate environment and strong competition, and the prospect of an increasing credit loss profile in the public finance market.

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