

PART SEVEN
THE NAIC STRUCTURED
SECURITIES GROUP

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Table of Contents

SECTION 1.	THE NAIC STRUCTURED SECURITIES GROUP.....	319
SECTION 2.	DEFINITIONS	320
SECTION 3.	POLICIES DEFINING THE NAIC STRUCTURED SECURITIES GROUP	323
	<i>a) Directive to Conduct Ongoing Operations</i>	<i>323</i>
	<i>b) SSG Regulatory Products</i>	<i>323</i>
	(i) NAIC Designations	323
	(ii) NAIC 5*/6* Designations	323
	(iii) Price Grids	323
	<i>c) Other Applicable Policies – Application of Analytical Instructions; Responsibility for Investment Risk Analysis in New Financial Products; Process for Placing Securities Under Regulatory Review</i>	<i>324</i>
SECTION 4.	ADMINISTRATIVE AND OPERATIONAL MATTERS	325
	<i>a) Certain Administrative Symbols.....</i>	<i>325</i>
	<i>b) Quarterly Reporting of RMBS and CMBS.....</i>	<i>325</i>
	<i>c) Filing Exemptions.....</i>	<i>325</i>
	(i) Limited Filing Exemption for RMBS and CMBS.....	325
	(A) RMBS and CMBS that can be Financially Modeled.....	325
	(B) RMBS and CMBS securities that cannot be Financially Modeled	326
	(ii) Filing Exemption for ABS	326
	<i>d) Review of Decisions of the SSG</i>	<i>326</i>
SECTION 5.	REQUIRED DATA AND DOCUMENTS FOR TRANSACTIONS SUBMITTED TO THE SSG	327
	<i>a) General Policy on Required Data and Documentation</i>	<i>327</i>
	<i>b) Documentation Standards and Procedure for Annual Surveillance of RMBS and CMBS.....</i>	<i>327</i>
	(i) Documentation Standard	327
	(ii) Initial Information Requirements	328
	A Initial Sufficiency Information Filing.....	328
	B. Safe Harbor	330
	(iii) Ongoing Information Requirements	330
SECTION 6	ANALYTICAL ASSIGNMENTS	332
	<i>a) Annual Surveillance of RMBS and CMBS – Modeled and Non-Modeled Securities - General Instructions</i>	<i>332</i>
	(i) Scope.....	332
	(ii) Important Limitation on the Definitions of RMBS and CMBS.....	332
	(iii) Analytical Procedures Applicable to RMBS and CMBS Securitizations Subject to Financial Modeling Methodology.....	332
	1. Filing Exemption Status of RMBS and CMBS	332
	2. Use of Financial Modeling for Year-End Reporting for RMBS and CMBS	332
	3. Analytical Procedures for RMBS and CMBS	333
	(iv) Analytical Procedures Applicable to Securities Not Subject to Financial Modeling Methodology	336
	<i>b) Mortgage Referenced Security</i>	<i>338</i>
	(A) Definition.....	338
	(B) Not Filing Exempt	338
	(C) NAIC Risk Assessment.....	338
	<i>c) The RTAS – Emerging Investment Vehicle</i>	<i>338</i>

(a) Purpose	338
(b) Extension of Authority.....	338
(c) Interpretation.....	339
(d) Translation of Preliminary into Official Price Grids.....	339

SECTION 1. THE NAIC STRUCTURED SECURITIES GROUP

The NAIC has determined that it is necessary to establish a Staff Function to provide NAIC members with an internal analytical capability to assess risks associated with insurer-owned securitizations and other complex financially engineered securities. The SSG is established as the Staff Function assigned to assess credit and other investment risks in securitizations and other complex financially engineered securities owned by state-regulated insurance companies.

SECTION 2. DEFINITIONS

The following terms used in this Part Seven have the meaning ascribed to them below.

ABS stands for **asset-backed securities** and means structured securities backed by consumer obligations originated in the United States.

CMBS stands for **commercial mortgage-backed securities** and means structured securities backed by in commercial real estate mortgage loans originated in the United States. The definition of CMBS may refer to securitizations backed by commercial mortgages, respectively, originated outside of the United States if and to the extent that the vendor selected by the NAIC to conduct the financial modeling: 1) has the necessary information about the commercial mortgage and commercial mortgage loans originated outside of the United States to fully model the resulting securities and 2) can adapt the modeling process to account for any structural peculiarities associated with the jurisdiction in which the mortgage was originated

Initial Information means the documentation required to be filed with an Initial Filing of an RMBS or a CMBS CUSIP, pursuant to [Section 6 below](#) and pertaining to [Loan Information](#), [Reps and Warranty Information](#) and [Structure and Formation Information](#) for the transaction, where:

- [Loan Information](#) means a review of the loan files by a third party to assess the sufficiency of legal title and other related issues;
- [Reps and Warranty Information](#) means the actual representation and warranties in effect for the securitization given by the mortgage originator(s) to the Trust pertaining to loan origination processes and standards, compliance with applicable law, loan documentation and the process governing put backs of defective mortgages back to the originator(s); and
- [Structure and Formation Information](#) means the waterfall, as described in the definition of Ongoing Information, information and documentation in the form of legal opinions and documentation governing the formation of the securitization and its entities relative to issues such as bankruptcy remoteness, true sale characterization, the legal standards and procedures governing the securitization and other similar issues.

Legacy Security, for the purposes of this [section] shall mean any RMBS and any CMBS that closed prior to Jan. 1, 2013.

Ongoing Information consists of: a) tranche level data; such as principal balance, factors, principal and interest due and paid, interest shortfalls, allocated realized losses, appraisal reductions and other similar information for the specific tranche, b) trust level data; such as aggregate interest and principal and other payments received, balances and payments to non-tranche accounts, aggregate pool performance data and other similar information; c) loan level performance information and; (d) a computerized model of rules that govern the order and priority of the distribution of cash from the collateral pool (“i.e., the waterfall”) to the holders of the certificates/securities – provided in the format and modeling package used by the NAIC financial modeling vendor.

Original Source, with respect to a specific set of data, means the Trustee, Servicer or similar entity that is contractually obligated under the agreement governing the RMBS or CMBS to generate and maintain the relevant data and information in accordance with standards specified in applicable agreements or an authorized re-distributor of the same.

Re-REMIC is a securitization backed by (i) otherwise eligible RMBS from one or two transactions; or (ii) otherwise eligible CMBS from one or two transactions at closing. Re-REMICs cannot acquire any Underlying Securities after closing.

RMBS stands for **residential mortgage-backed securities** and means structured securities backed by non-agency residential mortgages originated in the United States, where the collateral consists of loans pertaining to non-multi-family homes. That includes prime, subprime and Alt-A mortgages, as well as home-equity loans, home-equity lines of credit and Re-REMICs of the above. Excluded from this definition is agency RMBS, where the mortgages are guaranteed by federal and federally sponsored agencies such as the Government National Mortgage Association (GNMA), Federal National Mortgage Association (FNMA) or Federal Home Loan Mortgage Corporation (FHLMC) and loans against manufactured or mobile homes or collateralized debt obligations backed by RMBS. The exclusion covers bonds issued and guaranteed by, or only guaranteed by, the respective agency. Also not included are loans guaranteed by the U.S. Department of Veteran Affairs or the U.S. Department of Agriculture's Rural Development Housing and Community Facilities Programs. The definition of RMBS may refer to securitizations backed by residential mortgages, respectively, originated outside of the United States if and to the extent that the vendor selected by the NAIC to conduct the financial modeling: 1) has the necessary information about the residential mortgage and residential mortgage loans originated outside of the United States to fully model the resulting securities; and 2) can adapt the modeling process to account for any structural peculiarities associated with the jurisdiction in which the mortgage was originated.

Underlying Security means the RMBS or CMBS backing a Re-REMIC. A Re-REMIC cannot be an Underlying Security.

NOTE: The definitions of RMBS and CMBS reflect limitations associated with the financial modeling process, NAIC CRP internal naming conventions and SVO processes, as more fully discussed below and may therefore be subject to a narrower or a broader reading in any reporting period. *Please call the SVO with any concerns or questions about the scope of the definitions for a given reporting period.*

- It is possible that the scope of the RMBS and CMBS definitions may be broadened because the financial modeling vendors indicate other collateral or waterfall structures can be modeled.
- NAIC CRPs may adopt different internal conventions with respect to what market or asset segments are within their rated populations of RMBS, CMBS or ABS. This could affect the application of the adopted

NAIC methodology or require the NAIC to select which naming process it wishes to adopt.

- It is possible that the SVO will acquire analytical assessment capabilities that permit the assessment of existing, additional or different structured securities that cannot now be modeled or that are not currently rated.

Price Grids means and refers to CUSIP specific price matrices containing six price breakpoints; i.e., each price corresponding to a specific NAIC Designation category. Each breakpoint on a Price Grid is the price point that tips the NAIC Designation for the RMBS CUSIP into the next NAIC Designation (credit quality/credit risk) category. The plural is used because two Price Grids are generated for any CUSIP. This reflects the difference in RBC for those insurance companies that maintain an asset valuation reserve and for those insurance companies that do not.

Official Price Grids means and refers to those generated by the SSG and provided to an insurance company or insurance companies that own the security for regulatory reporting purposes.

SECTION 3. POLICIES DEFINING THE NAIC STRUCTURED SECURITIES GROUP

a) Directive to Conduct Ongoing Operations

The SSG shall conduct the following ongoing operations:

- (i) Develop and maintain expertise related to securitizations, including but not limited to, knowledge of: market developments; of issues and concerns related to applicable law; accounting regimes; structures; including waterfall arrangements, governing the cash flows and performance characteristics of different types of collateral; and the financial modeling and other technology relevant to assessing their valuation and risk assessment;
- (ii) Collaboration with the SVO to assess credit and other risks in non-securitizations including for the purpose of assigning NAIC Designations;
- (iii) Collaboration with other NAIC Staff Functions to facilitate related regulatory objectives;
- (iv) Such other analytical assignments assigned or requested by the VOSTF or other NAIC Regulator Group;

pursuant to and in accordance with, the directives, procedures and instructions described in this Part Seven and those generally applicable to the SVO or other Staff Functions in this Manual and other applicable NAIC guidance

b) SSG Regulatory Products

- (i) NAIC Designations
The SSG is authorized to assign NAIC Designations.
- (ii) NAIC 5*/6* Designations
The SSG is authorized to assign **NAIC 5*/6*** Designations to RMBS and CMBS under the Special Reporting Instruction contained in Part Two, Section 5 of this Manual as part of the administration of the annual surveillance discussed in Section 6 (a) of this Part and as may be subsequently authorized.
- (iii) Price Grids
The SSG shall generate Price Grids as required for the annual surveillance specified below in Section 6 (a) of this Part; in the exercise of its responsibilities under RTAS as specified in Section 6 (c) below, or as shall otherwise be necessary in fulfillment of an assigned responsibility.

**c) Other Applicable Policies – Application of Analytical Instructions;
Responsibility for Investment Risk Analysis in New Financial Products;
Process for Placing Securities Under Regulatory Review**

The policies and instructions specified in [Part One, Section 2 \(d\)](#), [2 \(e\)](#) and [2 \(f\) of this Manual](#) made applicable to the SVO shall be also fully applicable to the SSG, allowing for differences inherent in structured securities, analytical assignment given to the SSG and methodologies to be applied by it.

SECTION 4. ADMINISTRATIVE AND OPERATIONAL MATTERS

a) Certain Administrative Symbols

The following administrative symbols are used in the VOS Products to identify RMBS and CMBS that the NAIC vendor has confirmed will be subject to the financial modeling methodology described in [Section 6 \(a\) of this Part](#).

FMR indicates that the specific CUSIP identifies an RMBS that is subject to the financial modeling methodology.

FMC indicates that the specific CUSIP identifies an CMBS that is subject to the financial modeling methodology.

The use of these administrative symbols in the VOS Product means the insurer should not use the filing exempt process specified in [Part Two, Section 4 \(d\) of this Manual](#) for the security so identified.

NOTE: The administrative symbols **FMR** and **FMC** are related to symbols that insurers are required to use in the financial statement reporting process. Under applicable financial statement reporting rules, an insurer uses the symbol:

FM – as a suffix to identify modeled RMBS and CMBS CUSIPs;

AM – as a suffix to identify CUSIPs not modeled and not designated by the SVO but for which CRP ratings were used to derive the NAIC Designation.

The symbols FM and AM are inserted by the insurer in the financial statement as a suffix in front of the NAIC Designation category - i.e., 2FM.

b) Quarterly Reporting of RMBS and CMBS

To determine the NAIC Designation to be used for quarterly financial statement reporting for a RMBS or CMBS purchased subsequent to the annual surveillance described in [Section 6 \(a\) of this Part](#), the insurer uses the prior year-end modeling data for that CUSIP (which can be obtained from the NAIC) and follows the instructions in [Section 6 \(a\) \(iii\) \(3\) \(a\) \(v\) of this Part Seven below](#) or follows the instructions in [Section 6 \(a\) \(iv\) of this Part Seven below](#), subject to, and in accordance with, [SSAP No. 43R](#).

c) Filing Exemptions**(i) Limited Filing Exemption for RMBS and CMBS**

(A) RMBS and CMBS that can be Financially Modeled.

RMBS and CMBS that can be financially modeled are exempt from filing with the SVO.

NAIC Designations for RMBS and CMBS that can be financially modeled are determined by application of the methodology discussed in [Section 6 \(a\) \(iii\) of this Part Seven](#), not by the use of credit ratings of CRPs.

(B) *RMBS and CMBS securities that cannot be Financially Modeled*

(1) But are rated by a CRP

RMBS and CMBS that cannot be financially modeled but that are rated by a CRP are exempt from filing with the SVO. The NAIC Designations for these RMBS and CMBS are determined by application of the modified filing exemption discussed in [Section 6 \(c\) \(iv\) \(A\) of this Part Seven](#).

(2) But are not rated by an CRP

RMBS and CMBS that cannot be financially modeled and that are not rated by a CRP are not filing exempt and must be filed with the SVO as discussed below in [Section 6 \(a\) \(iv\) \(B\) of this Part Seven](#). See also, [Part Two, Section 5 \(i\) of this Manual](#).

(ii) Filing Exemption for ABS

ABS rated by a CRP are exempt from filing with the SSG pursuant to the filing exemption contained in [Part Two, Section 4\(d\) of this Manual](#).

d) Review of Decisions of the SSG

Analytical decisions made through the application of financial modeling are not subject to the appeal process specified in [Part One, Section 2 \(g\) of this Manual](#). In the absence of an appeal, the SSG shall provide whatever clarification as to the results of financial modeling is possible to any insurer who requests it and owns the security, provided that it is not unduly burdensome for the SSG to do so. Any decision made by the SSG that results in the assignment of an NAIC Designation and does not involve financial modeling methodology, whether developed by the SSG on its own or in collaboration with the SVO, is subject to the appeal process in [Part One, Section 2 \(g\) of this Manual](#).

SECTION 5. REQUIRED DATA AND DOCUMENTS FOR TRANSACTIONS SUBMITTED TO THE SSG

a) General Policy on Required Data and Documentation

The policy statement set forth in [this Section 5 \(a\)](#) shall be applicable generally to any transaction filed with the SSG for an analytical assessment, including but not limited to a Price Grid or for assignment of an NAIC. Any filing with the SSG is deemed to be incomplete unless the insurer has provided the information, documentation, and data in quantity and quality sufficient to permit the SSG to conduct an analysis of the creditworthiness of the issuer and the terms of the security to determine the requested analytical value. It is the obligation of the reporting insurance company to provide the SSG with all necessary information. It is the responsibility of the SSG to determine whether the information provided is sufficient and reliable for its purposes and to communicate informational deficiencies to the reporting insurance company.

b) Documentation Standards and Procedure for Annual Surveillance of RMBS and CMBS

(i) Documentation Standard

In order for an insurer-owned RMBS or CMBS to be eligible for the year-end modeling process, conducted pursuant to this [Part Seven, Section 6 \(a\)](#) below, the analysis must be based on information, documentation and data of the utmost integrity.

A Legacy Security must meet the Ongoing Information requirements.

An RMBS, CMBS or Re-REMIC that is not a Legacy Security must meet the Initial Information and Ongoing Information requirements. For the purposes of determining a Re-REMIC's status as a Legacy Security, the closing date of the Re-REMIC (not the Underlying Security) shall be used.

The SSG may, in its sole discretion, determine that the Initial Information and/or Ongoing Information is not sufficient and/or not reliable to permit the RMBS or CMBS CUSIP to be eligible for financial modeling. If the SSG determines that the Initial Information and/or Ongoing Information is not sufficient and/or not reliable to permit the RMBS or CMBS CUSIP to be eligible for financial modeling, it will communicate this decision to the insurer and invite a dialogue to ascertain whether alternative information is available that would be deemed sufficient and/or reliable by the SSG.

(ii) Initial Information Requirements

An RMBS or CMBS meets the Initial Information Requirements if the security meets one of the following three conditions:

1. **RTAS.** The RMBS or CMBS was assigned a preliminary price grid or designation as described in this Part Seven;
2. **Initial Sufficiency Filing.** The RMBS or CMBS was reviewed by SSG through an Initial Sufficiency Filing; or
3. **Safe Harbor.** The RMBS or CMBS meets the Safe Harbor requirements

A Initial Sufficiency Information Filing

An insurance company may file Initial Sufficiency Information with the SSG for the purpose of obtaining a determination that an RMBS or CMBS CUSIP is eligible for financial modeling under the annual surveillance process discussed in Section 8(iii) below.

Initial Sufficiency Information is only filed once for any given RMBS or CMBS. Reporting insurance companies are solely responsible for providing the SSG with Initial Information.

A determination by the SSG that a given RMBS or CMBS CUSIP is eligible for financial modeling after an Initial Sufficiency Filing assessment is subject to the further and continuing obligation that the SSG obtain or the insurer provide the SSG with updated Ongoing Information close to the date of the annual surveillance.

Required Documents for Initial Sufficiency Filing – An insurer that owns an RMBS or a CMBS for which Initial Information is not publicly available shall provide the SSG with the following documentation.

1. RMBS

Unless otherwise specified by the SSG in a Modeling Alert, as further described below, an Initial Filing for an RMBS consists of submission of Initial Information and Ongoing Information in the form of the following documentation:

- Pooling and Servicing Agreement or similar
- Prospectus, Offering Memorandum or similar; Accountant's comfort letter
- If applicable, ISDA Schedules and Confirmations or similar
- Legal opinions given in connection with the transaction
- Any other documents referenced by the above

- Third-Party Due diligence scope document and raw results. If less than 100% due diligence, detailed description of the loan selection process.
- If applicable, loan purchase agreements or similar.
- Loan Tape

2. CMBS

Unless otherwise specified by the SSG in a Modeling Alert, as further described below, an Initial Filing for a CMBS consists of submission of Initial Information and Ongoing Information in the form of the following documentation:

- Pooling and Servicing Agreement or similar
- Prospectus, Offering Memorandum or similar; Accountant's comfort letter
- If applicable, ISDA Schedules and Confirmations or similar
- Legal opinion given in connection with the transaction
- Any other documents reference in the above
- Asset Summaries
- Loan Tape
- Loan documents; including reliable information about the terms of the transaction; including, but not limited to, financial covenants, events of default, legal remedies and other information about financial, contractual or legal aspects of the transaction in form and substance consistent with industry best practices for CMBS issuance.
- In certain cases, additional documents below will enable the SSG to verify and validate initial underwriting information of the property securing the CMBS. These documents may be required in form and substance consistent with best practices for typical CMBS issuance.
 - Historical operating statements and borrower's budget
 - Underwriter's analysis of stabilized cash flow with footnotes of assumptions used
 - Property type specific, rent roll information
 - Appraisals and other data from recognized industry market sources
 - Independent engineering report (Property Condition Assessment)
 - Environmental Site Assessment (ESA) – Phase I/Phase II
 - Documentation related to seismic, flood and windstorm risks
 - Franchise agreements and ground leases, if applicable
 - Management agreements.]

3. SSG Modeling Alerts

The SSG shall at all times have discretion to determine that differences in the structure, governing law, waterfall structure or any other aspect of a securitization or a class of securitization requires that insurance companies provide Initial Information and or Ongoing Information additional to or different from that identified in this Part Seven. The SSG shall communicate such additional or different documentation requirements to insurers by publishing a Modeling Alert on the NAIC website and scheduling a meeting of the Valuation of Securities (E) Task Force to ensure public dissemination of the decision.

B. *Safe Harbor*

Safe Harbor options serve as proxies for the Initial Sufficiency filing. The options reflect publicly available information that a third party has analyzed the Initial Information. Because the structured securities market is quite dynamic, the list of Safe Harbor options may change frequently, with notice and opportunity for comment, as described in [Part One, Section 6 of this Manual](#). An RMBS or CMBS meets the Initial Information requirement if:

- i. At least two Section 17(g)-7 reports issued by different CRPs are publicly available; or
- ii. A security that is publicly registered under the 1933 Securities Act.

(iii) Ongoing Information Requirements

An RMBS or CMBS meets the Ongoing Information Requirements if Ongoing Information is available to the SSG and the relevant third party vendor from an Original Source. The SSG, in its sole discretion and in consultation with the relevant third-party vendor, may determine that the Ongoing Information is not sufficient or reliable to permit a given RMBS or CMBS CUSIP to be financially modeled. However, in making such a determination, SSG shall take into account reasonable market practices and standards.

(iv) Special Rules for Certain Re-REMICs

Re-REMICs are generally simple restructurings of RMBS or CMBS. An Initial Sufficiency Filing for a Re-REMIC (a) which is not a Legacy Security itself but (b) where each Underlying Security is a Legacy Security shall not require submission of information regarding the Underlying Securities. In most cases a prospectus for the Re-REMIC will be sufficient. If the SSG determines that additional information about the Re-REMIC structure or formation is required, it will communicate this decision to the insurer and

invite a dialogue to ascertain whether additional information is available that would be deemed sufficient by the SSG.

SECTION 6 ANALYTICAL ASSIGNMENTS

a) Annual Surveillance of RMBS and CMBS – Modeled and Non-Modeled Securities - General Instructions

(i) Scope

This [Section 6 \(a\)](#) explains the financial modeling methodology applicable to RMBS and CMBS (defined in [Section 2](#) of this Part above) securitizations and the carrying value methodology applicable to modeled and non-modeled securities subject to *Statement of Statutory Accounting Principles No. 43 Revised - Loan-Backed and Structured Securities (SSAP No. 43R)*. Please refer to [SSAP No. 43R](#) for a description of securities subject to its provisions. The VOSTF does not formulate policy or administrative procedures for statutory accounting guidance. Reporting insurance companies are responsible for determining whether a security is subject to [SSAP No. 43R](#) and applying the appropriate guidance.

(ii) Important Limitation on the Definitions of RMBS and CMBS

The definitions of RMBS and CMBS in [Section 2 of this Part](#) above are intended solely to permit the SVO to communicate with financial modeling vendors, insurance company investors who own RMBS and CMBS subject to financial modeling and or carrying value methodology and their investment advisors to facilitate the performance by the SVO of the financial modeling methodology described below. The definitions contained in this Section are not intended for use and should not be used as accounting or statutory statement reporting instructions or guidance. Readers must refer to [SSAP No. 43R](#) for applicable accounting guidance and reporting instructions.

(iii) Analytical Procedures Applicable to RMBS and CMBS Securitizations Subject to Financial Modeling Methodology

1. *Filing Exemption Status of RMBS and CMBS*

RMBS and CMBS are not eligible for the filing exemption provided in [Part Two, Section 4 \(d\) \(i\) of this Manual](#) because credit ratings of CRPs are no longer used to set risk-based capital (RBC) for RMBS or CMBS. However, RMBS and CMBS are not submitted to the SVO. Please refer to [Section 4 \(c\) \(i\) of this Part](#) and [Part Three, Section 3 \(a\) of this Manual](#) for related instructions.

2. *Use of Financial Modeling for Year-End Reporting for RMBS and CMBS*

Beginning with year-end 2009 for RMBS and 2010 for CMBS, probability weighted net present values will be produced under SVO supervision by an NAIC-selected vendor using its financial model

with defined analytical inputs selected by the SVO and approved by the VOS/TF. The vendor will provide the SVO with a range of net present values for each RMBS or CMBS corresponding to each NAIC designation category. The NAIC designation for a specific RMBS or CMBS is determined by the insurance company, based on carrying value ranges. *Please refer to SSAP No. 43R for guidance on all accounting and related reporting issues.*

3. *Analytical Procedures for RMBS and CMBS*

The SVO shall develop and implement all necessary processes to coordinate the engagement by the NAIC of a vendor who will perform loan-level analysis of insurer-owned RMBS and CMBS using the vendor's proprietary models.

a. **RMBS and CMBS Subject to Financial Modeling**

(i) **Setting Microeconomic Assumptions and Stress Scenarios**

Not later than September of each year, the SVO shall begin working with the vendor to identify the assumptions, stress scenarios and probabilities (hereafter model criteria) the SVO proposes to use at year-end to run the vendor's financial model.

The VOS/TF shall schedule a regulator-to-regulator meeting so that it can consult with staff and the vendor on the proposed model criteria. The purpose of the regulator-to-regulator meeting is to permit the staff and vendor to explain its recommendations; how the analytical processes intended to be used will produce net present values of RMBS and CMBS and to permit the VOS/TF to provide policy direction that would assist the SVO to identify the technical approaches most likely to secure the regulatory objective. The SVO shall incorporate whatever guidance is provided by the VOS/TF at this regulator-to-regulator meeting into the proposed model criteria and prepare a Proposed Model Criteria Document.

If directed by the VOS/TF, the SVO shall release the Proposed Model Criteria Document to the public in anticipation of a public meeting of the VOS/TF. The purpose of the public meeting is to provide an opportunity for insurance company investment managers with responsibility for RMBS and CMBS to ask questions and comment on the proposed model criteria or process.

The SVO is directed to consider the technical comments made by the industry and/or other interested persons during the public

meeting. Subsequent to the meeting, the SVO shall prepare a questions-and-answers document in which it shall list and reply to the technical questions and concerns expressed at the public meeting. The SVO may make whatever technical adjustments to the proposed model criteria it shall in its analytical discretion deem appropriate and publish a Final Proposed Model Criteria Document on its Web page.

(ii) The Financial Modeling Process

The SVO shall obtain loan-level analysis of RMBS and CMBS using the selected vendor's proprietary financial model.

The financial model used by the SVO is expected to provide for each of the analytical steps that follow: a macroeconomic process, a mortgage loan credit process and a waterfall process.

The macroeconomic process projects the future performance of macroeconomic variables. These variables and various scenarios to be employed in this step of the financial modeling process will have been determined through the meetings described in subparagraph (i) above.

The mortgage loan credit process projects loan performance based on the projected macroeconomic variables and loan characteristics. The loan characteristics employed may be broadly identified and discussed in the Final Model Criteria Document to the extent the VOS/TF deems it necessary to ensure attainment of regulatory objectives, but subject to legitimate commercial and proprietary interests of the financial model vendor.

The results of the mortgage loan credit model provide the scenario inputs to produce a tranche level cash flow "waterfall."

What follows is, therefore, intended as a general description of one such process.

LOAN-LEVEL ANALYSIS

RMBS – Loan-level analysis begins with historical loan performance. Loans are classified as performing or non-performing. Based on loan characteristics and macroeconomic variables, transition probabilities are calculated. Because the parameters of the model are path-dependent, Monte Carlo simulation is used. A random drawing against these calculated probabilities decides the performance group or exit group (prepayment or default) that the loan will be assigned to during the next month. The loan-level prediction is then aggregated into pool level projected curve. For purposes of loss severity, the same default probabilities are applied to maintain

consistency. Additional components that contribute to the ultimate loss severity analysis include collateral deficiency (unpaid balance less REO sales price), lost interest (accrued as servicer advances), expenses (legal fees, property taxes and brokerage fees) and mortgage insurance considerations.

- CMBS** – The vendor will review raw loan level data sourced from servicers and trustees for inconsistencies and inaccuracies, correcting the data where applicable. Based upon SVO directions, the vendor will manually review and re-underwrite certain loans in each pool based upon size, credit history or other criteria at the discretion of the SVO. In addition to loan level performance, the vendor’s analysis will reasonably take into account other factors known to bear on long-term property performance, such as age, size and locational characteristics. The vendor will then utilize market-derived income growth curves and capitalization rates to project the collateral performance of each loan in a given CMBS issue. Based on parameters and triggers such as debt service coverage levels, extension parameters and workout periods and costs, produce an outcome and loss estimate for each loan in the pool.

RMBS and CMBS

Once generated, pool cash flows are passed through the bond waterfall. The “waterfall” is a set of rules derived from the terms of the contract governing the RMBS or CMBS securitization that determine which bonds get paid principal and interest and how losses are distributed at a particular point in time. Waterfall models for individual RMBS and CMBS securitizations can be obtained from a reputable vendor (often referred to as a deal library).

The net present value for the insurer-owned RMBS or CMBS tranche is derived by applying a discount rate to the projected/probability weighted cash flow. In multiple scenario approaches, the mortgage credit model and waterfall model are used to calculate the present value of losses under each scenario.

The final valuation is the par value minus the probability weighted present value of losses. The interest rate used to discount the bond cash flow will be the bond coupon.

(iii) Validation of Modeled Results

The NAIC and SVO staff shall ensure that the vendor has extensive internal quality-control processes in place. In addition, however, the SVO shall conduct its own quality-control checks of the vendor’s valuation process.

(iv) Publication of Final Results

Upon delivery by the vendor of values for the RMBS and CMBS portfolio and subject to the final modeling process and

completion of all SVO quality control and validation processes, the SVO shall cause the valuation file for the modeled insurer-owned portfolio to be delivered to other appropriate NAIC staff for dissemination to insurance companies.

- (v) Use of Net Present Value and Carrying Value for Financially Modeled RMBS and CMBS

For each modeled RMBS and CMBS, the financial model determines the net present value at which the expected loss equals the midpoint between the RBC charges for each NAIC designation; i.e., each price point, if exceeded, changes the NAIC designation. Net present value is the net present value of principal losses, discounted using the security's coupon rate (adjusted in case of original issue discount securities to book yield at original issue and in case of floating rate securities, discounted using LIBOR curve + Origination spread). Because of the difference in RBC charge, the deliverable is five values for each RMBS and CMBS security for companies required to maintain an AVR and five values for companies not required to maintain an AVR. This is illustrated in the chart below.

RBC charge / NAIC designation (pre-tax)

P&C	RBC	Midpoint
1	0.3%	0.65%
2	1.0%	1.50%
3	2.0%	3.25%
4	4.5%	7.25%
5	10.0%	20.00%
6	30.0%	
Life	RBC	Midpoint
1	0.4%	0.85%
2	1.3%	2.95%
3	4.6%	7.30%
4	10.0%	16.50%
5	23.0%	26.50%
6	30.0%	

The NAIC designation for a given modeled RMBS or CMBS CUSIP owned by a given insurance company depends on the insurer's carrying value of each RMBS or CMBS, whether that carrying value, in accordance with SSAP No. 43R, paragraphs 25–26a, is the amortized cost or fair value, and where the carrying value matches the price ranges provided in the model output for each NAIC designation; *except that a RMBS or CMBS tranche that has no expected loss under any of the selected modeling scenarios and that would be equivalent to an **NAIC 1** Designation if the filing exempt process were used, would be assigned an **NAIC 1** Designation regardless of*

the insurer's carrying value. Please refer to the detailed instructions provided in SSAP No. 43R.

- (iv) Analytical Procedures Applicable to Securities Not Subject to Financial Modeling Methodology

(A) *Securities Not Modeled but Rated by an NAIC CRP and Subject to Modified Filing Exempt Process*

- To obtain the NAIC designation for a CUSIP not modeled but rated by an NAIC CRP, please refer to the detailed instructions in SSAP No. 43R, paragraph 26b.

- Securities assigned an NAIC CRP credit rating equivalent to an **NAIC 1** designation are assumed to have zero expected loss and therefore the designation is not modified by the carrying value and remain **NAIC 1**. Securities assigned an NAIC CRP credit rating equivalent to an **NAIC 6** designation are not modified by the carrying value and remain **NAIC 6**.
- The Table below is used to implement the carrying value methodology for securities that are subject to modified filing exempt process SSAP No. 43R, except Excluded Securities as defined in subsection (C) below.

Life	1>2	2>3	3>4	4>5	5>6
NAIC2	97.88	100.00	104.69	116.23	132.04
NAIC3	93.49	95.52	100.00	111.02	126.12
NAIC4	84.22	86.04	90.08	100.00	113.61
NAIC5	74.13	75.73	79.29	88.02	100.00

P&C & Health	1>2	2>3	3>4	4>5	5>6
NAIC2	99.14	100.00	101.81	106.20	123.13
NAIC3	97.38	98.22	100.00	104.31	120.94
NAIC4	93.36	94.16	95.87	100.00	115.94
NAIC5	80.52	81.22	82.69	86.25	100.00

Designation changes when carrying value exceeds the breakpoint

(B) Securities Not Modeled and Not Rated by an NAIC CRP or Designated by the SVO

Securities subject to SSAP No. 43R, that cannot be modeled and are not rated by an NAIC CRP or designated by the SVO, are either (X) assigned the NAIC administrative symbol NR (not rated), requiring subsequent filing with the SVO, or (Y) assigned the NAIC designation for Special Reporting Instruction; i.e., an **NAIC 5*** or **NAIC 6*** (five-star or six-star), as discussed in [Part Two, Section 5 of this Manual](#).

(C) Exclusion of Certain Securities from Application of Carrying Value Methodology for Non Modeled Securities

(1) Exclusion and Excluded Securities

The carrying value methodology described in subsection (iv) A, above, shall not apply (the Exclusion) to Credit Tenant Loans, Equipment Trust Certificates (whether rated by an NAIC CRP or designated for quality by the SVO) or to every other individual security to which the SVO has assigned an NAIC Designation, (collectively, “Excluded Securities”), effective with the 2011 year-end reporting cycle. Please refer to SSAP No. 43R, paragraph 26c.

(2) Deriving NAIC Designations for Excluded Securities

The NAIC Designation for Excluded Securities that are Credit Tenant Loans or Equipment Trust Certificates shall be the credit rating assigned by CRPs after application of the filing exemption procedure described in [Part Two, Section 4 \(d\) \(i\) of this Manual](#) or the NAIC Designation assigned

by the SVO. The NAIC Designation for Excluded Securities that are individual securities to which the SVO has assigned an NAIC Designation, shall be the NAIC Designation assigned by the SVO. Please refer to SSAP No. 43R, paragraph 26c.

b) Mortgage Referenced Security

(A) Definition

Mortgage Referenced Security is a category of a Structured Note, as defined above in Part Three, Section 3 (b) (vi) of this Manual.

In addition to the Structured Note definition, the following are characteristics of a Mortgage Referenced Security:

A Mortgage Referenced Security's coupon and/or principal payments are linked, in whole or in part, to prices of, or payment streams from, real estate, index or indices related to real estate, or assets deriving their value from instruments related to real estate, including but not limited to mortgage loans.

(B) Not Filing Exempt

A Mortgage Referenced Security is not eligible for the filing exemption in Part Two, Section 4 (c) (ii) or the filing exemption in Section 4 (d) of this Manual, but is subject to the filing requirement indicated in Part Two, Section 2 (a) of this Manual.

(C) NAIC Risk Assessment

In determining the NAIC designation of a Mortgage Referenced Security, the SSG may use the financial modeling methodology discussed in this Part Seven, Section 6(a), adjusted to the specific reporting and accounting requirements applicable to Mortgage Referenced Securities.

c) The RTAS – Emerging Investment Vehicle

(a) Purpose

Price grids are generated for the exclusive use of insurance companies and the NAIC regulatory community. Insurance companies use official Prices Grids by following the instructions in SSAP No. 43R, Loan Backed and Structured Securities, to derive a final NAIC Designation for the RMBS or CMBS which they use to derive the RBC applicable for the RMBS or CMBS. *Please refer to SSAP No. 43R for a full explanation of the applicable procedure.*

(b) Extension of Authority

The procedure specified in Part Four, Section 3 (a) of this Manual for the SVO is extended to the SSG and the SSG is authorized to determine probable regulatory treatment for RMBS and CMBS pursuant to Section 5

[\(a\) of this Part Seven](#) or for other securities, where, in the opinion of the SSG, financial modeling methodology would yield the necessary analytical insight to determine probable regulatory treatment or otherwise enable the SSG to make recommendations to the VOS/TF as to regulatory treatment for a security, as discussed in [Part Four, Section 3 \(a\) \(ii\) of this Manual](#).

(c) Interpretation

To facilitate this purpose, wherever in [Part Four, Section 3 \(a\) \(ii\) of this Manual](#), reference is made to the SVO, it shall be read to also refer to and apply to the SSG, adjusting for differences in the operational or methodological context.

[Part Four, Section 3 \(a\) \(ii\) of this Manual](#) shall also be read as authority for collaboration between SVO and SSG Staff Functions so as to encompass RTAS assignments that require the use of SVO financial, corporate, municipal, legal, and structural analysis and related methodologies as well as of financial modeling methodologies.

(d) Translation of Preliminary into Official Price Grids

Price Grids generated by the SSG pursuant to an RTAS under [this Section 6 \(c\) of this Part](#) are preliminary within the meaning of that term as used in [Part Four, Section 3 \(a\) \(ix\) of this Manual](#) and accordingly cannot be used for official NAIC regulatory purposes.

Preliminary NAIC Designations are translated into official NAIC Designations by the SVO when an insurance company purchases and files the security and the SVO conducts an official assessment. However, the Purposes and Procedures Manual does not require the filing of RMBS and CMBS subject to financial modeling methodology with the SSG. It is therefore necessary to specify a procedure for the translation of preliminary Price Grids into official Price Grids that can be used for NAIC regulatory purposes.

Preliminary Price Grids generated by the SSG become an official Price Grid within the meaning of this Section when an insurance company has purchased the security for which the Price Grid was generated and reported that security for quarterly reporting purposes using the SSG generated Price Grid.

A Price Grid for a security reported by an insurance company for quarterly reporting is effective until the SSG conducts the next annual surveillance pursuant to [Section 6 \(a\) of this Part](#) at which the time the Price Grids generated by the SSG at year end shall be the official Price Grid for that security.