MEMORANDUM

TO: Public File – Notice of Proposed Rulemaking: Market Risk; Alternatives to Credit Ratings for Debt and Securitization Positions (RIN 3064-AD70)

FROM: FDIC Staff

DATE: April 13, 2012

SUBJECT: Meeting with PNC Financial Services Group

On April 13, 2012, representatives from the FDIC participated in a meeting with representatives from PNC Financial Services Group (PNC) to discuss certain proposed modifications to the Simplified Supervisory Formula Approach (SSFA) which were included in the notice of proposed rulemaking on the market risk capital requirements for debt and securitization positions. A document presenting PNC's proposed amendment to the SSFA was presented at the meeting. An electronic copy of that document is attached.

A list of FDIC and PNC attendees at the meeting is presented below.

FDIC:
Bobby Bean, Karl Reitz, James Haas, Michael Phillips

PNC:
Kieran J. Fallon, Chief Counsel Regulatory Affairs, Legal Department
Gagan Singh, Chief Investment Officer and EVP;
Reggie Imamura, Executive Vice President, Corporate & Institutional Bank;
William Falcon, Vice President,Corporate & Institutional Bank.
David Kahn, Director, Asset and Liability Management;

Risk-Based Capital under Dodd-Frank Section 939A: Market Risk Rules and the SSFA

April 12, 2012

PNC

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Executive Summary

- **The proposed NPR SSFA is a thoughtful attempt to calculate risk-based capital in a straightforward and standardized manner. The root formula is directionally sound; however, the proposed supervisory floor is not appropriately risk sensitive**
  - With some minor revisions to improve risk sensitivity the SSFA formula, without the supervisory floor, would produce capital charges that are more commensurate with the risk of securitization positions
  - PNC supports the ASF's recommended modifications to the SSFA and the examples shown on pages 12 through 16 herein illustrate the improvements in risk sensitivity when ASF's proposed modifications are applied

- **Any risk-based capital regime for securitizations should satisfy the following guiding principles:**
  - Capital charges should fundamentally reflect the unexpected losses for any given exposure
  - There should be a high correlation between the riskiness of an asset and the capital associated with it
    - For securitization tranches, risk depends on the underlying collateral as well as the structure and leverage of the individual tranche
    - Carrying value is an important variable when evaluating the risk of an individual tranche to the institution holding the position
  - Capital charges should be determined using a dynamic process that is responsive to material changes in risk profile by incorporating actual collateral performance and current capital structure
  - Opportunities for capital arbitrage should be minimized
    - Widely divergent capital charges on senior tranches vs. asset pools encourage capital arbitrage and unnecessarily impede securitizations, which promote the flow of credit and can have important risk-reducing benefits for institutions

- **The SSFA as proposed is inconsistent with the above guiding principles for the following reasons:**
  - K_G uses broad-based asset categories and is not risk sensitive to initial differences in asset quality
  - K_G does not change over time, potentially resulting in understated or overstated capital charges
  - The supervisory floor does not incorporate a securitization exposure's seniority or thickness, two elements that substantially affect risk (a fact recognized in the root SSFA formula)
  - SSFA can result in capital charges for thick senior tranches that significantly exceed the capital charges required on the pool of assets if they were not securitized
  - Carrying value is not reflected in the calculation of attachment point

I. Executive Summary

II. SSFA Root Formula

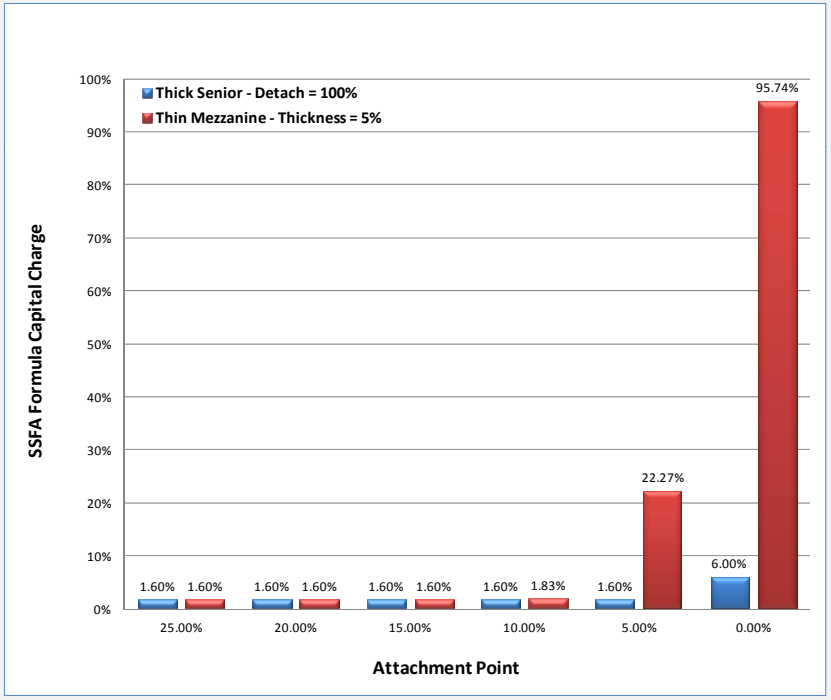
III. Inconsistencies of SSFA with Guiding Principles

IV. Proposed Modifications and Illustrative Examples

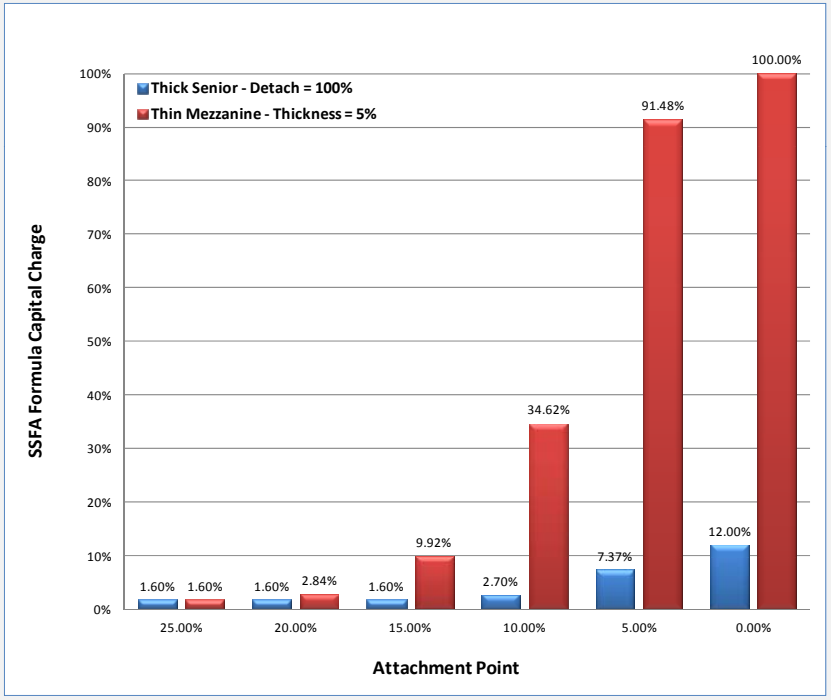
The SSFA Root Formula Is Directionally Sound

- The root SSFA formula is directionally sound, producing capital requirements that are relatively high for more risky positions (attachment point is relatively low) and capital requirements that are relatively low for less risky positions (attachment point is relatively high)
  - The supervisory floor should be removed as it overrides many of the positive aspects of the root SSFA formula and distorts the capital charges, potentially de-linking capital charges from risk profile

SSFA Formula Capital Charges: K_G = 4%



SSFA Formula Capital Charges: K_G = 8%



Above Examples Utilize SSFA Formula Only, No Supervisory Floor

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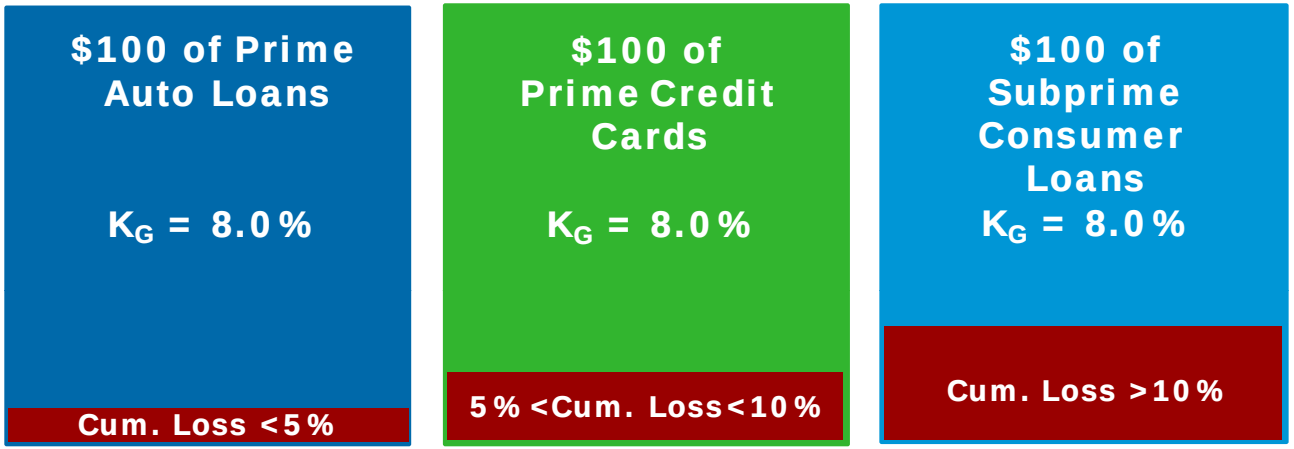
Inconsistencies of SSFA with Guiding Principles

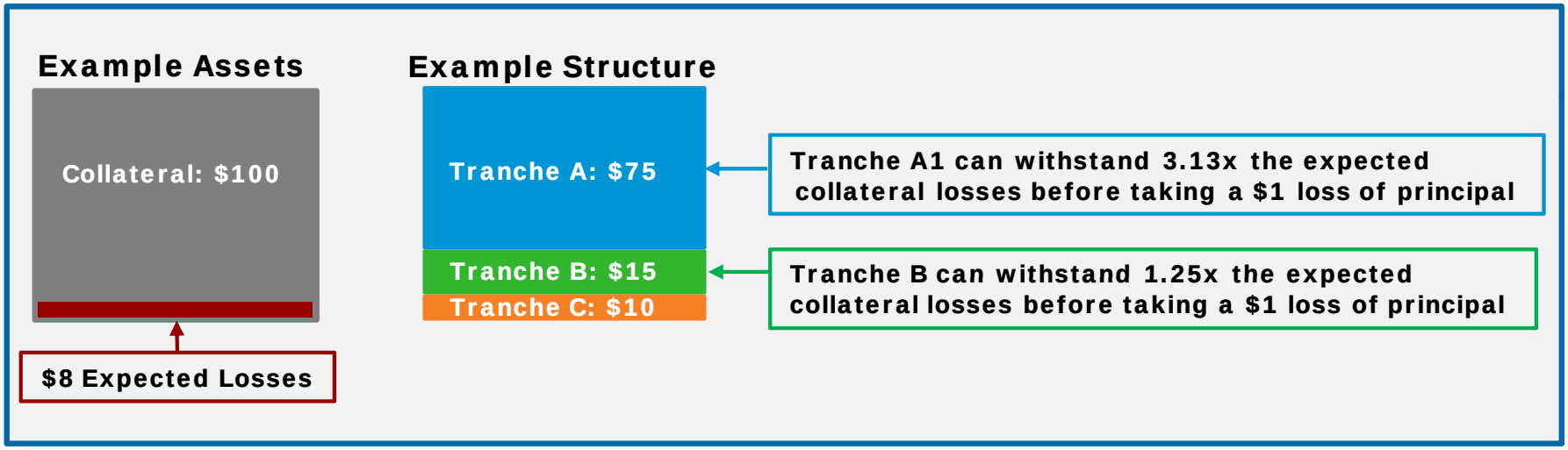
- K_G uses broad-based asset categories and is not risk sensitive to initial differences in asset quality



- K_G does not change over time, potentially resulting in understated or overstated capital charges

Inconsistencies of SSFA with Guiding Principles

- **SSFA relies on a supervisory floor that does not incorporate a securitization tranche's seniority or thickness, resulting in a failure to differentiate between the riskiness of senior and junior tranches**
  - More capital should be held for riskier junior tranches relative to less risky senior tranches
  - Failure to differentiate between the risk profile of senior and mezzanine bonds creates opportunity for capital arbitrage and encourages risk taking

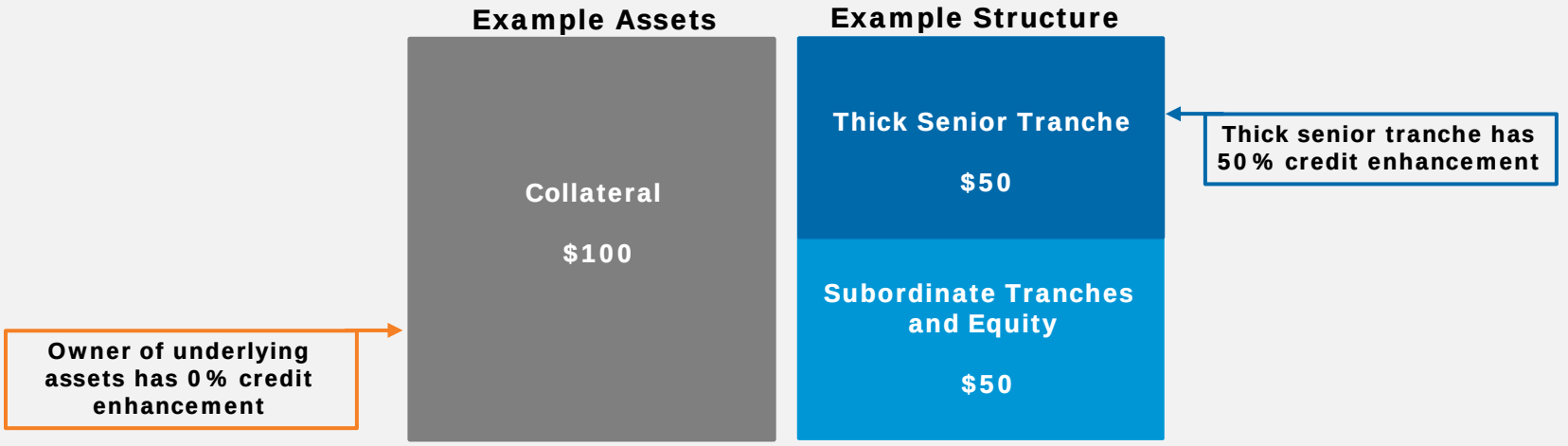


Inconsistencies of SSFA with Guiding Principles

- **SSFA can result in capital charges on the most senior tranche in a securitization that significantly exceed the average capital charges required on the pool of assets if they were not securitized**
  - The most senior tranche in a securitization *always* has less credit risk than the underlying assets
  - Widely divergent capital charges on senior tranches vs. asset pools encourage capital arbitrage and unnecessarily impede securitizations, which promote the flow of credit and can have important risk-reducing benefits for institutions

Example: Thick Senior Tranche

- Thick senior tranche with 50% credit enhancement has a very different risk profile than the underlying collateral and should not require capital charges that are substantially higher than if all of the underlying assets were owned instead

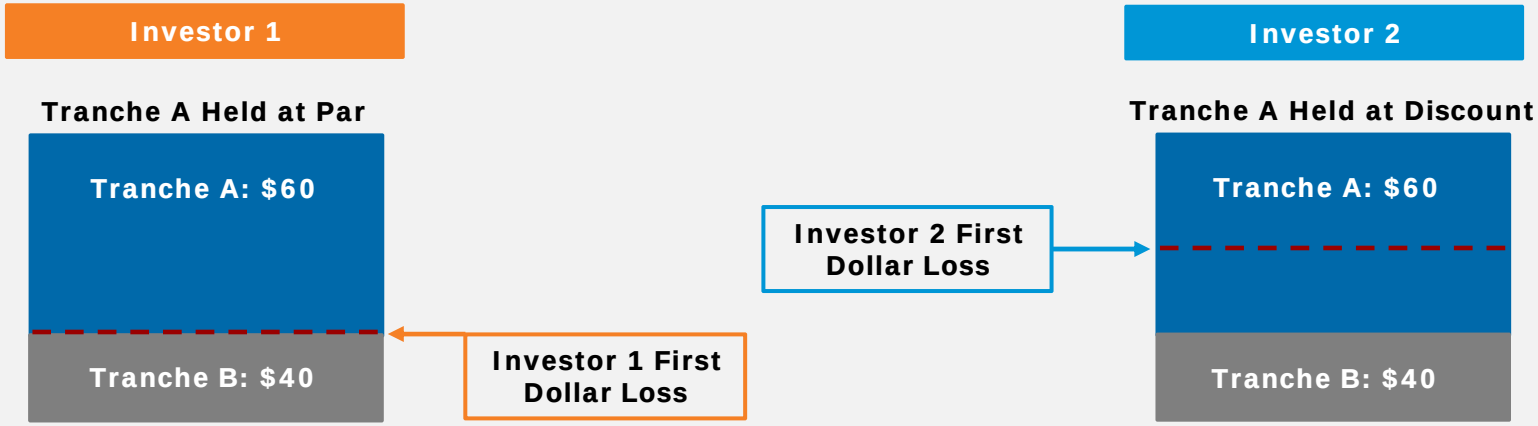


Inconsistencies of SSFA with Guiding Principles

- **Carrying value is not reflected in the calculation of attachment point**

Investor 2 in the example below is exposed to significantly less risk than Investor 1

- The amount of collateral losses that could occur prior to $1 of loss is significantly higher for Investor 2 than for Investor 1. To account for this, carrying value should be incorporated in the calculation of attachment point



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Proposed Modifications to SSFA as Proposed

- **PNC is supportive of the proposed modifications outlined in ASF's comment letter and summarized below which result in more risk sensitive and appropriate capital charges for securitization exposures**
  - The examples on the following slides highlight some of flaws in the SSFA as proposed as well as illustrating how application of ASF's proposed modifications improves risk sensitivity
  - All inputs for the modified formula are readily accessible by banks of all sizes, including community banks
  - For ease of presentation, carrying value of each tranche in the examples is assumed to be 100% of par

Proposed Modifications

- Incorporate collateral quality into K_G
  - K_G should be scaled appropriately for the risk of the asset pool
    - For example, 4% for prime auto and prime bank cards

- Replace the supervisory floor and modify K_G to make K_{SSFA} more risk sensitive
  - K_G should be calculated using the following formula:

$$K_G = \text{Performing Collateral} \cdot \text{Initial } K_G + \text{Delinquent Collateral} \cdot \text{Historical Loss Severity}$$

  - This modification eliminates the need for a dynamic supervisory floor, by incorporating the higher capital requirement for deteriorating collateral
    - To the extent a dynamic floor is utilized, it should be more granular and incorporate the attachment point as follows:

$$\text{Supervisory Floor Metric} = \frac{\text{Cum. Losses. On Issued Securities}}{K_G + A_{\text{modified}}}$$

  - A ceiling is included on the capital charge of the most senior tranche in a securitization that is equal to modified K_G

- Incorporate the carrying value into the attachment point
  - The carrying value of the bond should be incorporated into the attachment point parameter of the K_{SSFA} formula

$$A_{\text{modified}} = A + (D - A) \cdot (1 - C)$$

$$\text{where, } C = \frac{\text{Carrying Value of Security}}{\text{Par Value of Security}}$$

CMBS Example: CD 2007-CD4

Problem: Mezzanine CMBS bond with poor performance would require only floor level capital charge under SSFA as proposed

- Proposed SSFA requires 1.6% capital on the thin mezzanine bond (AMFX) even though it has only 22.01% credit enhancement and 90+ day delinquencies have reached 19.13%

1. NPR K_G remains at 8% even though collateral performance has deteriorated substantially, whereas the ASF K_G has increased to 16.03%
2. NPR SSFA results in a capital charge of 1.6% for both the thick senior (A2B) and thin mezzanine (AMFX) bonds, whereas the ASF SSFA results in a capital charge on the mezzanine bond that is more than 18 times what is required on the thick senior tranche

Key Variables: CD 2007-CD4

	A2B	AMFX
Inputs		
NPR K_G	8.00%	8.00%
ASF K_G	16.03%	16.03%
Attachment Point	33.32%	22.01%
Detachment Point	100.00%	33.32%
90+ Delinquencies	19.13%	19.13%
Severity	50.00%	50.00%
Carrying Value	100.00	100.00
Cumulative Loss (Assets)	0.53%	0.53%
Cumulative Loss (IS)	0.00%	0.00%
Memo Items		
Moody's Rating	Aaa	Baa3
S&P Rating	AAA	BB+
As of Date	Mar-12	Mar-12
CUSIP	12513YAC4	12513YAH3
Factor	0.88	0.88
Outputs		
NPR SSFA (Issued Securities Based Table)	1.60%	1.60%
NPR SSFA (Underlying Assets Based Table)	1.60%	1.60%
ASF SSFA (Static Floor)	1.39%	25.43%
ASF SSFA (Granular Floor)	1.39%	25.43%

Subprime RMBS Example: HEAT 2006-5

Problem: Subprime mortgage bond with poor performance would require only floor level capital charge under SSFA as proposed

- K_G is based on broad asset categories and does not change over time, potentially resulting in inappropriate capital charges (either insufficient or excessive)
  1. In the example below, despite poor collateral performance, K_G would remain at 8% for the life of the transaction
  2. In July 2008, the 2A4 tranche, with only 31.1% credit enhancement and 37.7% of 90+ day delinquencies would require only the minimum capital charge of 1.6% using the NPR SSFA

Example of Issues with the NPR SSFA

HEAT 2006-5: Subprime RMBS Example	Jul-06			Jul-08		
Pool Factor	100.0%			58.1%		
Collateral Cumulative Losses	0.0%			4.1%		
Cumulative Losses on Issued Securities	0.0%			0.9%		
Delinquency: 90+ Days Past Due	0.0%			37.7%		
3-Month Loss Severity	0.0%			53.5%		
Proposed SSFA K_G Value in the NPR	8.0%			8.0%		
Supervisory Floor Capital Charge (NPR)	1.60%			1.60%		
Tranche	Rating	C/E	NPR SSFA Capital Charge	Rating	C/E	NPR SSFA Capital Charge
2A1	AAA	51.48%	1.60%	AAA	82.31%	1.60%
2A4	AAA	20.65%	1.98%	AAA	31.14%	1.60%

Subprime RMBS Example: HEAT 2006-5

Solution: ASF proposed changes result in riskier bond holding more capital

- Incorporating the ASF proposed modifications to include a K_G value that is updated to reflect a pool's current collateral performance results in capital charges that are more risk sensitive and more appropriate
  1. In July 2008, the modified ASF SSFA incorporates the 37.7% of 90+ day delinquencies into its K_G calculation, resulting in a K_G of 25.1% and a capital charge for the 2A4 tranche of 40.4%

Example of ASF Modified SSFA Correcting Flaws in the Original SSFA

HEAT 2006-5: Subprime RMBS Example	Jul-06	Jul-08
Pool Factor	100.0%	58.1%
Collateral Cumulative Losses	0.0%	4.1%
Cumulative Losses on Issued Securities	0.0%	0.9%
Delinquency: 90+ Days Past Due	0.0%	37.7%
3-Month Loss Severity	0.0%	53.5%
Proposed SSFA K_G Value in the NPR	8.0%	8.0%
Modified ASF SSFA K_G Value	8.0%	25.1%
Supervisory Floor (NPR) Capital Charge	1.60%	1.60%

Tranche	Jul-06 Rating	Jul-06 C/E	Jul-06 NPR SSFA Capital Charge	Jul-06 ASF SSFA Capital Charge	Jul-08 Rating	Jul-08 C/E	Jul-08 NPR SSFA Capital Charge	Jul-08 ASF SSFA Capital Charge
2A1	AAA	51.48%	1.60%	0.56%	AAA	82.31%	1.60%	0.56%
2A4	AAA	20.65%	1.98%	1.98%	AAA	31.14%	1.60%	40.35%

Subprime RMBS Example: HEAT 2006-5

Problem: Under proposed SSFA, senior tranche with large amounts of credit enhancement would require inappropriately high capital charges that are the same as a more junior bond with significantly less credit enhancement

- The SSFA relies on the supervisory floor to increase capital charges as principal losses increase. However, the supervisory floor does not incorporate a securitization exposure's seniority or thickness
  1. In July 2009, the proposed SSFA produces a 52% capital charge for the most senior tranche (2A1) with over 95% of credit enhancement and an equivalent 52% capital charge for the riskier, more junior tranche (2A4) with under 25% of credit enhancement
  2. The 2A1 tranche pays down only 5 months later, further illustrating the inappropriateness of the 52% capital charge

Example of Issues with the NPR SSFA

HEAT 2006-5: Subprime RMBS Example	Jul-09	Dec-09
Pool Factor	41.3%	36.7%
Collateral Cumulative Losses	13.5%	19.2%
Cumulative Losses on Issued Securities	8.9%	11.4%
Delinquency: 90+ Days Past Due	52.4%	56.8%
3-Month Loss Severity	69.6%	69.9%
Proposed SSFA K_G Value in the NPR	8.0%	8.0%
Supervisory Floor Capital Charge (NPR)	52.00%	100.00%

Tranche	Jul-09 Rating	Jul-09 C/E	Jul-09 NPR SSFA Capital Charge	Dec-09 Rating	Dec-09 C/E	Dec-09 NPR SSFA Capital Charge
2A1	AAA	95.19%	52.00%	FULLY PAID DOWN		
2A4	C	24.80%	52.00%	C	21.24%	100.00%

Subprime RMBS Example: HEAT 2006-5

Solution: ASF proposed changes result in capital charges that reflect the different risk profiles of senior and junior tranches

- Incorporating the ASF proposed modifications to eliminate a risk insensitive supervisory floor in favor of a more risk sensitive K_G produces more appropriate capital charges
  1. In July 2009, the modified ASF SSFA results in a capital charge of 5.8% for the 2A1 tranche with over 95% of credit enhancement and a capital charge of 99.5% for the 2A4 tranche with under 25% credit enhancement

Example of ASF Modified SSFA Correcting Flaws in the Original SSFA

HEAT 2006-5: Subprime RMBS Example	Jul-09	Dec-09
Pool Factor	41.3%	36.7%
Collateral Cumulative Losses	13.5%	19.2%
Cumulative Losses on Issued Securities	8.9%	11.4%
Delinquency: 90+ Days Past Due	52.4%	56.8%
3-Month Loss Severity	69.6%	69.9%
Proposed SSFA K_G Value in the NPR	8.0%	8.0%
Modified ASF SSFA K_G Value	40.3%	43.2%
Supervisory Floor (NPR) Capital Charge	52.00%	100.00%

Tranche	Rating	C/E	NPR SSFA Capital Charge	ASF SSFA Capital Charge	Rating	C/E	NPR SSFA Capital Charge	ASF SSFA Capital Charge
2A1	AAA	95.19%	52.00%	5.82%	FULLY PAID DOWN			
2A4	C	24.80%	52.00%	99.47%	C	21.24%	52.00%	100.00%