

July 11, 2011

The Agencies set forth on Attachment 1

Re: Margin and Capital Requirements for Covered Swap Entities

Ladies and Gentlemen:

The American Securitization Forum ("ASF")¹ appreciates the opportunity to submit this letter in response to the request of (x) the Office of the Comptroller of the Currency (the "OCC"), the Board of Governors of the Federal Reserve System (the "FRB"), the Federal Deposit Insurance Corporation (the "FDIC"), the Farm Credit Administration (the "FCA") and the Federal Housing Finance Agency (the "FHFA" and together with the OCC, the FRB, the FDIC, the FCA, collectively, the "Prudential Regulators") for comments regarding the notice of proposed rulemaking (the "Prudential Regulators' Release") with the RIN numbers set forth on Attachment 1 and (v) the Commodity Futures Trading Commission (the "CFTC" and together with the Prudential Regulators, the "Agencies") for comments regarding the notice of proposed rulemaking with the RIN number set forth on Attachment 1 (the "CFTC Release" and together with the Prudential Regulators' Release, each a "Release" and collectively, the "Releases"), regarding the Agencies' proposed rules to prescribe margin and capital requirements for covered swap entities under Sections 731 and 764² of Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the "Dodd-Frank Act"). This comment letter focuses on the text of the proposed rules contained in the Prudential Regulators' Release (the "Prudential Regulators' Proposed Margin Rules") and the proposed rules contained in the CFTC Release (the "CFTC Proposed Margin Rules" and together with the Prudential Regulators' Margin Rules, collectively, the "Proposed Uncleared Swap Margin Rules"). ASF supports appropriate reforms within the over-the-counter ("OTC") derivatives market as it relates to the securitization market and we commend the Agencies for seeking industry input regarding their proposed rules on these critically important issues. Over the past decade, ASF has become the preeminent forum for

¹ The American Securitization Forum is a broad-based professional forum through which participants in the U.S. securitization market advocate their common interests on important legal, regulatory and market practice issues. ASF members include over 330 firms, including issuers, investors, servicers, financial intermediaries, rating agencies, financial guarantors, legal and accounting firms, and other professional organizations involved in securitization transactions. ASF also provides information, education and training on a range of securitization market issues and topics through industry conferences, seminars and similar initiatives. For more information about ASF, its members and activities, please go to www.americansecuritization.com.

² While Structured Finance SPVs (as defined below) may use both "swaps" and "security-based swaps", they generally utilize swaps more frequently and hence our focus in this letter is on Section 731.

ASF Title VII Margin and Capital Requirements Comment Letter to Agencies Page 2 July 11, 2011

securitization market participants³ to express their views and ideas. ASF was founded as a means to provide industry consensus on market and regulatory issues, and we have established an extensive track record of providing meaningful comment to various regulatory agencies on issues affecting our market. Our views as expressed in this letter are based on feedback received from our broad membership.

The Proposed Uncleared Swap Margin Rules, among other things, generally require covered swap entities to collect initial and variation margin from their counterparties for noncleared swaps, depending upon the type of counterparty, and, with certain exceptions under the CFTC Proposed Margin Rules, limit the type of eligible collateral for margin to immediately available cash funds, treasuries and for initial margin only, senior debt obligations of certain government sponsored entities (hereinafter, "Liquid Margin"). For the reasons set forth below relating to how swaps are used by Structured Finance Participants (as hereinafter defined), we believe that the application of the Proposed Uncleared Swap Margin Rules to Structured Finance Swaps (as defined below) is not required by the Dodd-Frank Act and will contravene certain provisions of the Dodd-Frank Act. Moreover, the Releases would not serve the policy embedded in the Dodd-Frank Act to reduce systemic risk and will lead to less liquidity in the structured finance market. Prior to setting forth these arguments, however, we would like to provide some background in the use of swaps by Structured Finance Participants.

I. <u>Background on the Use of Swaps by Structured Finance Participants</u>

A universally accepted policy definition of a structured finance issuance does not exist. However, we believe that the Agencies should follow the definition set forth in Regulation AB ("<u>Regulation AB</u>"). Regulation AB provides in pertinent part that the term:

"(c)(1) *Asset-backed security* means a security that is primarily serviced by the cash flows of a discrete pool of receivables or other financial assets, either fixed or revolving, that by their terms convert into cash within a finite time period, plus any rights or other assets designed to assure the servicing or timely distributions of proceeds to the security holders; provided that in the case of financial assets that are leases, those assets may

³ A recent study by the Board of Governors of the Federal Reserve (the "<u>Federal Reserve Study</u>") provides background and context on the current size and trends in the securitization market. As noted by the Federal Reserve Study, different segments of the ABS and RMBS markets have recovered at varying levels during the 18 months since the "end" of the recession. Auto and auto-related ABS accounted for \$53.9 billion in issuance in 2009, which represents 80.7% of the auto and auto-related ABS issuance of \$66.8 billion during 2007, just before the downturn. \$7.2 billion in equipment ABS was issued during 2009, in contrast with the 2007 issuance of \$6.1 billion. In 2009, credit card ABS accounted for \$46.6 billion in issuance, down 50.7% from 2007 issuance of \$94.5 billion. Meanwhile, the student loan sector issued \$20.8 billion in ABS during 2009, down 64.2% from 2007 issuance of \$58.1 billion. On the RMBS side, \$48.1 billion of RMBS were issued in 2009, down 92.5% from 2007 issuance of \$641.8 billion.

ASF Title VII Margin and Capital Requirements Comment Letter to Agencies Page 3 July 11, 2011

convert to cash partially by the cash proceeds from the disposition of the physical property underlying such leases.⁴"

The following discussion of Structured Finance Swaps focuses on their use by cash-based structured finance instruments, as opposed to synthetic structures. Structured finance instruments are frequently issued through finite-lived, standalone special purpose vehicles. Structured finance special purpose vehicles ("<u>Structured Finance SPVs</u>") are typically legal entities created by the sponsor or originator by transferring assets to the Structured Finance SPV, to facilitate a specific purpose or defined activity, or a series of such transactions. Structured Finance SPVs have no other purpose than the transactions for which they were created, and the Structured Finance SPV can make no operational decisions; the rules governing them are prescribed in advance and carefully limit their activities. The legal entity for a Structured Finance SPVs may be a limited partnership, a limited liability company, a trust or a corporation.⁵ Structured Finance SPVs may be structured to be either off or on the balance sheet of the sponsor or originator.⁶

Financing structures commonly included within structured finance include securitizations and cash flow obligations. Depending upon the particular structure, participants in a structured financing generally can include originators and/or sellers of assets, servicers (collectively, the "<u>Sponsoring Group</u>") and the Structured Finance SPVs (collectively with the Sponsoring Group, the "<u>Structured Finance Participants</u>") which typically act as the issuer of the debt instruments that back the particular asset pool.

The Sponsoring Group may have established the Structured Finance SPV with a majority of ownership held by the sponsor or originator (directly or through its affiliates) and/or, through the board of directors, to the extent that it may exercise a certain amount of control over the

⁴ In adopting the Regulation AB definition, we are using a more limited definition of asset-backed security than the broader definition of asset-backed security contained in Section 941(a) of the Dodd-Frank Act, which includes structures such as collateralized debt obligations of collateralized debt obligations or "CDO squared." Section 941(a) of the Dodd-Frank Act provides in pertinent part that "[A] a fixed income or other security collateralized by any type of self-liquidating financial asset (including a loan, a lease, a mortgage or a secured or unsecured receivable) that allows the holder of the security to receive payments that depend primarily on cash flow from the asset, including—

⁽i) a collateralized mortgage obligation;

⁽ii) a collateralized debt obligation;

⁽iii) a collateralized debt obligation of asset-backed securities;

⁽iv) a collateralized debt obligation of collateralized debt obligations; and

⁽v) a security that the [Securities and Exchange] Commission by rule, determines to be an asset-backed security for purposes of this section;"

⁵ See Frank J. Fabozzi, Henry A. Davis and Moorad Choudhry, "Introduction to Structured Finance: Introduction" (Wiley & Sons 2006) ("<u>Introduction to Structured Finance</u>").

⁶ Typically, off-balance sheet Structured Finance SPVs have the following characteristics: (a) they do not have independent management or employees; (b) their administrative functions are performed by a trustee who follows set rules with regard to the distribution of cash; there are no other decisions; (c) assets held by the SPV are serviced through a servicing agreement; and (d) they are structured so that they are bankruptcy remote. See <u>Introduction to Structured Finance</u>, Introduction.

ASF Title VII Margin and Capital Requirements Comment Letter to Agencies Page 4 July 11, 2011

Structured Finance SPV. The economic risk of the issuance and the Structured Finance Swap, however, often remains with the Structured Finance SPV. The assets that are the subject of the structured financing are transferred to the Structured Finance SPV and typically become the source of repayment and cash flows for the servicing of the structured finance debt instrument as well as the Structured Finance Swaps. Structured Finance SPVs are typically self-contained, closed, insulated entities. Accordingly, the failure of the Structured Finance SPV to meet its obligations under the Structured Finance Swap (or in general) is not likely to have ripple effects to the Sponsoring Group where there is no or little recourse to the assets of the Sponsoring Group. The transfer of assets is typically the subject of a true sale opinion and, as mentioned above, a characteristic of Structured Finance SPVs is that they are structured to be bankruptcy remote.

Structured Finance Participants utilize many different types of swaps but interest rate and currency derivatives are among the most commonly used. Typically, Structured Finance Swaps are used to hedge the floating interest rate liabilities related to a structured finance debt issuance, and are not used for speculative purposes. Structured Finance Participants typically use few (often not more than one per tranche) Structured Finance Swaps per structured financing, so the volume of swaps is limited.

There are many different features that vary among the swaps used by Structured Finance Participants, but frequently swaps used by such entities are either entered into by the Structured Finance SPV directly ("<u>SPV Swaps</u>") and/or do not have a fixed notional amount, but either accrete or amortize according to a fixed schedule ("<u>Predetermined Schedule Notional Swap</u>") or in accordance with the prepayment schedule of the structured finance note, which may vary depending upon the prepayments made on the underlying structured finance note ("<u>Floating Notional Swap</u>", collectively with the SPV Swaps and the Predetermined Schedule Notional Swap, the "<u>Structured Finance Swaps</u>"). Structured Finance Swaps are frequently not margined with cash or liquid securities but share in the collateral pool underlying the structured finance as security.

Further, obligations under Structured Finance Swaps are usually secured by a security agreement (along with the obligations under a debt instrument), which gives the counterparty to the swap (acting through a collateral agent or a collateral trustee) rights to direct (or share in the direction of) foreclosure upon the collateral upon certain events.

It is also important to understand where the Structured Finance Swap typically falls within the capital structure of the Structured Finance SPV. Unless there has been a default relating to the swap counterparty, Structured Finance Swaps are often senior to other obligations of the Structured Finance SPV (i.e., "Super-Senior") and are at least pari passu with the Structured Finance SPV's other obligations. In the hierarchy of payments (i.e., the "waterfall"), other than in a default situation, Structured Finance Swaps are usually up-front and at the top. There is full recourse to the Structured Finance SPV.

In addition, Structured Finance Swaps are often overcollateralized with the collateral of the securitization (the receivables). On Attachment 2 we show an example of an automobile loan securitization. The example shows that at t-1 under scenario 2, which assumes a 1.5x maximum

ASF Title VII Margin and Capital Requirements Comment Letter to Agencies Page 5 July 11, 2011

interest rate movement, without liquid margining, the structure would have 3.9 times as many assets as (in terms of receivables) it would need to cover the required collateral on the swap, which level of collateralization is by far higher than the default initial and variation margin levels contained in the releases proposing the margin rules.

In sum, Structured Finance Swaps are typically overcollateralized, hedging instruments that are pari passu, if not senior, to the Structured Finance SPVs' other obligations. Accordingly, they are likely to pose less of a risk to their counterparties (such as covered swap entities) than swaps entered into by operating vehicles.

II. <u>Structured Finance Swaps should be Assessed in Terms of their Effect on the</u> <u>Safety and Soundness of Swap Dealers and Risk Appropriateness</u>

Section 731 of the Dodd-Frank Act amends the Commodities Exchange Act (the "<u>CEA</u>") to add new section 4s relating to the registration and regulation of Swap Dealers and Major Swap Participants. Section 4s(e) provides that Swap Dealers and Major Swap Participants shall meet minimum capital and margin requirements to be prescribed by the applicable regulators. Section 4(s)(e)(3) provides that "to offset the greater risk to the swap dealer or major swap participant and the financial system arising from the use of swaps that are not cleared" the minimum margin requirements imposed on Swap Dealers and Major Swap participants shall:

"(i) help ensure the safety and soundness of the swap dealer or major swap participant; and

(ii) be appropriate for the risk associated with the non-cleared swaps held as a swap dealer or major swap participant."

In applying this mandate through the Proposed Uncleared Swap Margin Rules, the Agencies have adopted an approach that uses the status of the counterparty to the Swap Dealer or Major Swap Participant (i.e., whether the counterparty is a "financial entity"⁷) as a proxy for determining whether margin is required to "help ensure the safety and soundness" and is "appropriate for the risk associated with the non-cleared swaps" and hence whether margin will be required. In doing so, the Agencies adopt into the Section 731 rulemaking (and build on) the concept of "financial entity" from the end-user exception to the clearing requirement contained in Section 723 of the Dodd-Frank Act.

We do not believe that a test for margin for uncleared swaps based on whether or not the counterparty to the Swap Dealer or Major Swap Participant is or is not a "financial entity" is required by the statute, nor is it warranted. Section 4s(e)(3) does not make any reference to financial entity or any entity when referring to the margin standards. Rather, the language is

⁷ While some Structured Finance SPVs may not fall within the definition of "financial entity" as set forth in Section 723 of the Dodd-Frank Act, others may be deemed to be a financial entity, particularly as they may fall within those class of entities designated as a private fund as defined in Section 202(a) of the Investment Advisers Act of 1940 since they rely upon the exemptions from the Investment Company Act of 1940 under Section 3(c)(1) or 3(c)(7) of the Investment Company Act.

ASF Title VII Margin and Capital Requirements Comment Letter to Agencies Page 6 July 11, 2011

transactional, not entity based, and it refers to the "use of swaps that are not cleared." The Agencies approach would read in the use of the words by "financial entities" after "swaps" and before the word "that" in the above referenced text. There is nothing in the language of the text or the legislative history which suggests congressional intent to do so. Rather, the standards set forth in the statutory language are "to help ensure the safety and soundness" and "be appropriate for the risk associated with the non-cleared swaps".

We believe that the exemption from clearing provided to non-financial end-users in Section 723 of the Dodd-Frank Act should also apply to exempt non-financial end-users from the margin provisions in Section 731 of the Dodd-Frank Act. This has been Congress' intent all along as evidenced in many Congressional discussions, debates, colloquies, and letters. At the same time, we believe that the exemption from the margin provisions should not be limited to non-financial end-users, as it is with respect the clearing requirement, but should encompass a broader set of swaps; otherwise the margin requirement would be superfluous. Although the Dodd Frank Act does not exempt financial entities from clearing requirements, as set forth above, the statutory language does not impose margin requirements on uncleared derivatives entered into by financial entities.⁸

Moreover, the rationale for a mandatory clearing requirement and limitations of exceptions to non-financial entities, does not and should not necessarily apply to a margin requirement for uncleared swaps. A mandatory clearing requirement (and any exceptions thereto) is not based solely on the safety and soundness of the Swap Dealers and Major Swap Participants and the appropriateness of the risk but also additional factors such as those set forth in Section 2(h)(2)(D) of the CEA including those factors related to enhancing transactional and price transparency. While it may make sense to draw the line at financial entities vs. non-financial entities if one of the goals of the applicable requirement is transparency, such as it is with clearing, such a line drawing would not effectuate the purpose of a margin requirement based more broadly upon safety and soundness and risk appropriateness. Rather, we believe that the Agencies were provided with more discretion under Section 731 to expand the scope of exceptions from the margin requirement beyond (and in addition to) the end-user exception contained in Section 723.

III. Applying Liquid Margin Requirements to Structured Finance Swaps would not enhance the safety and soundness of Swap Dealers and Major Swap Participants, is not appropriate for the risks of Structured Finance Swaps and would reduce liquidity in consumer and mortgage finance

Applying the margin requirements in the Proposed Uncleared Swap Margin Rules to Structured Finance SPVs would have serious negative consequences for structured finance

⁸ Our position with respect to the Proposed Uncleared Swap Margin Rules should not be interpreted as a concession that we believe that Structured Finance Swaps would be required to be cleared under the mandatory clearing rules of Section 723. On the contrary, because of the uniqueness and non-standard nature of Structured Finance Swaps (as described in Section I above) and in particular Floating Notional Swaps, we believe (and have expressed this position in prior comment letters) that it would be difficult to clear a Structured Finance Swap.

ASF Title VII Margin and Capital Requirements Comment Letter to Agencies Page 7 July 11, 2011

issuances. As special purpose vehicles, the Structured Finance SPVs would not be able to comply with these requirements standing alone. Structured Finance SPVs do not typically have access to Liquid Margin as would operating vehicles. Applying Liquid Margin requirements to Structured Finance SPVs would face the Sponsoring Group with a choice to either retain more of the economic risk of the structured finance issuances⁹ or forego such issuances. The application of a Liquid Margin requirement may render many structured financings uneconomic as the Structured Finance SPV would be required to post cash and liquid securities which it does not have. As mentioned above, the source of repayment for structured financings is generally the cash flow from the assets or receivables which is generated over time. Requiring the posting of liquid collateral would affect the cash flow analysis for a structured financing and cause adverse effects on the functioning of this market, including ultimately reducing the available amount of loans or other financing for the assets underlying the structured financing. The resulting effect will be less liquidity in these markets (e.g. for mortgages, auto loans and credit cards), thereby creating adverse consequences as the economy struggles to recover.

Attachment 2 illustrates the foregoing point. Attachment 2 assumes an interest rate swap related to an automobile securitization offering, that the size of the automobile securitization offering and related notional amount of the swap is \$100, the duration of the offering is 4.25 years, the required initial margin is 2% of the notional amount (which is consistent with the standardized minimum initial margin requirements on Appendix A of the Release), the offering and swap notional amortize according to historical prepayment levels and variation margin is posted dollar for dollar with no threshold. Attachment 2 shows the effect of posting Liquid Margin under two scenarios. In Scenario #1, we assume that interest rates have moved during the relevant time period by the 95% percentile of the historical movement in interest rates over such a period since January 1984. Scenario 1 may understate the required amount of the margin reserve if the sponsor of the securitization intends to seek a triple-A credit rating for any class of securities being offered in the securitization. For that reason in Scenario #2, we assume that interest rates have moved during the relevant time period 150% of the historical movement in interest rates over such a period. In order to create a margin reserve under both scenarios there will be less cash flow initially to make loans under either scenario. In Scenario #1, there will be \$9.83 less available at inception to make loans, while in Scenario #2, there will be \$21.13 less available at inception to make loans. Accordingly, requiring the posting of Liquid Margin can have significant effects on the availability of auto financing and hence automobile sales-part of the real economy.

The cost of this reduced liquidity could conceivably be justified if it was achieved along with the benefit of a reduction in risk to the Structured Finance SPVs' counterparty and a reduction overall in systemic risk. However, as described above, under current market practice, Structured Finance Swaps are typically overcollateralized with the collateral-receivables that are the subject of the structured financing.

⁹ The regulation of retention of economic risk by Sponsoring Groups is the subject of other provisions of Dodd-Frank, notably Section 941. There is no evidence that the Title VII derivatives provisions were also intended to be applied in a manner so as to reinforce securitization risk retention requirements contained elsewhere in Dodd-Frank.

ASF Title VII Margin and Capital Requirements Comment Letter to Agencies Page 8 July 11, 2011

Moreover, as set forth in Section I, Structured Finance Swaps do not typically have a fixed set notional schedule, rather they amortize or accrete either according to a predetermined fixed schedule, such as the Predetermined Schedule Notional Swap, or according to the prepayments on the underlying debt instrument as in the case of the Floating Notional Swap. The example in Attachment 2 represents a Predetermined Schedule Notional Swap, which may be an unrealistic assumption to make given the prepayment features of many structured finance issuances since Floating Notional Swaps are used. This presents inherent difficulties in how to periodically margin with Liquid Margin. How would initial and variation margin requirements be set if the notional schedule is not fixed? It would be extremely difficult, if not impossible, to margin a Floating Notional Swap with Liquid Margin, without forcing the counterparties to modify the material terms so it becomes a swap with a fixed set notional schedule.

IV. <u>Margin Requirements under Section 4s(e)(3) should be based upon whether the</u> swap is a systemically important swap, rather than the nature of the counterparty

Accordingly, as set forth above in Section I, based upon the statutory analysis, we believe that the rules relating to the margin requirements in Section 4s(e)(3) should not hardwire the nature of the counterparty into the requirements, namely whether they are a financial entity or not.¹⁰ Further, it is our position that Structured Finance Swaps meet the standards set forth in Section 4s(e)(3) of the CEA because they are low risk, with built-in safety and soundness protections and to impose the Liquid Margin requirements would reduce liquidity in the consumer economy.

We propose, therefore, that instead of margin rules that depend upon the nature of the counterparty, the margin rules should focus on the nature of the swap itself. Accordingly, we propose that the Proposed Uncleared Swap Margin Rules should be modified so that margin requirements or zero thresholds are imposed only upon swaps designated as Systemically Important Swaps. While there may be other components to this definition¹¹, with respect to Structured Finance Swaps we propose that this definition specifically adopt the following exclusion:

A "Systemically Important Swap" shall not include a swap entered into in order to hedge or mitigate commercial risk (as defined in rules promulgated pursuant to the Dodd-Frank Act) by a special purpose vehicle issuing an Asset-Backed Security (as defined under Regulation AB).

¹⁰ If the Agencies believe that they are mandated to impose a "financial entity" test in the context of Section 4s(e)(3), as an alternative to what we request below, we believe that the Agencies have the discretion to modify the definition of "financial entity" contained in Section 723 so that the definition of "private fund" does not include Structured Finance Swaps. This could be done by adding the following after the phrase "a private fund as defined in section 202(a) of the Investment Advisers Act of 1940 (15 U.S.C. Section 1002)": "except by a special purpose vehicle issuing an Asset Backed Security (as defined Regulation AB under the Exchange Act) that is relying upon the exemptions under Sections 3(c)(1) or 3c(7) of the Investment Company Act".

¹¹ For example, also carving out entities that meet the "captive finance company" exclusion to the clearing requirement set forth in Section 723 of the Dodd-Frank Act.

ASF Title VII Margin and Capital Requirements Comment Letter to Agencies Page 9 July 11, 2011

The Agencies could either not apply the margin requirements with respect to swaps that are not Systemically Important Swaps or permit such swaps to use the non-liquid collateral held in the securitization trust, consistent with current market practice.

* * * *

ASF very much appreciates the opportunity to provide the foregoing views in connection with the Agencies' rulemaking process. Should you have any questions or desire any clarification concerning the matters addressed in this letter, please do not hesitate to contact me at 212.412.7107 or at tdeutsch@americansecuritization.com, Evan Siegert, ASF Managing Director, Senior Counsel at 212.412.7109 or at esiegert@americansecuritization.com, or ASF's outside counsel on this matter, Evan M. Koster of Dewey & LeBoeuf at 212.259.6730 or at ekoster@dl.com.

Sincerely,

Jam Deutsch

Tom Deutsch Executive Director American Securitization Forum

ASF Title VII Margin and Capital Requirements Comment Letter to Agencies Page 10 July 11, 2011

Attachment 1-Agencies

Department of the Treasury (RIN: 1557-AD43) Board of Governors of the Federal Reserve System (RIN: 7100 AD74 Federal Deposit Insurance Corporation (RIN: 3064-AD79) Farm Credit Administration (RIN: 3052-AC69) Federal Housing Finance Agency (RIN: 2590-AA45) Commodity Futures Trading Commission (RIN: 3038-AC97)

ASF Title VII Margin and Capital Requirements Comment Letter to Agencies Page 11 July 11, 2011

Attachment 2—Illustration of a swap used in an Automobile Loan Securitization

95th percentile historical interest rate movement						
	t=1	t=2	t=3	t=4		
Size	\$100.00	\$100.00	\$100.00	\$100.00		
Duration at inception	4.25	4.25	4.25	4.25		
Required upfront	2%	2%	2%	2%		
Required upfront \$	\$2.00	\$2.00	\$2.00	\$2.00		
95% interest rate movement	2.87%	4.65%	5.37%	5.25%		
Remaining duration at that time	3.25	2.25	1.25	0.25		
Remaining balance at that time	\$81.94	\$62.97	\$43.01	\$22.04		
Swap 95% mtm movement	\$7.63	\$6.59	\$2.89	\$0.29		
Collateral haircut	98%	98%	98%	98%		
Total required collateral	\$9.83	\$8. 77	\$4.99	\$2.34		
Effective existing overcollateralization	8.3x	7.2x	8.6x	9.4x		
Funding cost (bps)	50	50	50	50		
Collateral earnings (bps)	0	0	0	0		
Negative carry (bps)	-50	-50	-50	-50		
Total net running collateral cost \$	-\$0.05	-\$0.04	-\$0.02	-\$0.01		
Total net running collateral cost (bps)	-4.92	-4.38	-2.49	-1.17		

Budgeting for collateral reserve allocated at time zero 95th percentile historical interest rate movement

Budgeting for collateral reserve allocated at time zero

1.5x maximum historical interest rate movement

	t=1	t=2	t=3	t=4
Size	\$100.00	\$100.00	\$100.00	\$100.00
Duration at inception	4.25	4.25	4.25	4.25
Required upfront	2%	2%	2%	2%
Required upfront \$	\$2.00	\$2.00	\$2.00	\$2.00
Max x 1.5 interest rate movement	7.02%	7.94%	9.09%	10.69%
Remaining duration at that time	3.25	2.25	1.25	0.25
Remaining balance at that time	\$81.94	\$62.97	\$43.01	\$22.04
Swap max x 1.5 mtm movement	\$18.71	\$11.24	\$4.89	\$0.59
Collateral haircut	98%	98%	98%	98%
Total required collateral	\$21.13	\$13.51	\$7.03	\$2.64
Effective existing overcollateralization	3.9x	4.7x	6.1x	8.3x
Funding cost (bps)	50	50	50	50
Collateral earnings (bps)	0	0	0	0
Negative carry (bps)	-50	-50	-50	-50
Total net running collateral cost \$	-\$0.11	-\$0.07	-\$0.04	-\$0.01
Total net running collateral cost (bps)	-10.57	-6.76	-3.52	-1.32