

Client Update

Bank Agencies Adopt Margin and Capital Rules for Non-Cleared Derivatives

NEW YORK

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The Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") required the Board of Governors of the Federal Reserve System (the "FRB"), Federal Credit Administration, Federal Deposit Insurance Corporation, the Federal Housing Finance Agency (the "FHFA"), and Office of the Comptroller of the Currency (each, an "Agency," and collectively referred to as the "Agencies") to adopt rules jointly to establish initial and variation margin requirements and capital requirements with respect to all non-cleared swaps and non-cleared security-based swaps (collectively, "Covered Swaps") of certain entities registered with the Commodity Futures Trading Commission (the "CFTC") or the Securities Exchange Commission (the "SEC") as swap dealers ("SDs") or security-based swap dealers ("SBSDs") for which one of the Agencies is the prudential regulator.

To comply with their mandate under the Dodd-Frank Act to adopt margin and capital rules, in April 2011, the Agencies released their first proposed non-cleared swap margin and capital rules (the "2011 Proposal")¹. Following the Agencies' 2011 Proposal, the Basel Committee on Banking Supervision and the Board of the International Organization of Securities Commissions adopted in September 2013 an international framework for margin requirements for non-cleared derivatives in order to create an international standard for all non-cleared derivatives (the "2013 International Framework"). After reviewing the comments received on the 2011 Proposal and the 2013 International Framework, the Agencies published a re-proposal of their margin and capital rules (the "2014 Proposal") that made certain changes to their 2011 Proposal, including replacing the 2011 Proposal's "collection-only" approach to margin requirements with a

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For a discussion of the 2011 Proposal and the CFTC's proposed margin rules, please refer to our client memorandum, "Release of Proposed Rules on Swap Capital and Margin Requirements Under Title VII of the Dodd-Frank Act," dated April 28, 2011, available at: http://www.debevoise.com/newseventspubs/publications/detail.aspx?id=6b43be87-2152-475f-8bf2-563775d57e80.



requirement that all Covered Swap Entities must both collect and post initial and variation margin, to and from, certain counterparties.

In late October 2015, the Agencies published joint final rules (the "Final Rules") establishing minimum margin and capital requirements for Covered Swap Entities (defined below). The Final Rules will become effective on April 1, 2016.²

On the same day, the Agencies also adopted interim final rules (the "Interim Margin Exemptions") to exempt from the margin requirements of the Final Rules certain Covered Swaps with nonfinancial end users and certain other counterparties that qualify for an exception or exemption from the clearing requirement for swaps and security-based swaps in section 2(h)(1)(A) of the Commodity Exchange Act (the "CEA") and section 3C(a)(1) of the Securities Exchange Act (the "Exchange Act"), respectively. The Interim Margin Exemptions will also become effective on April 1, 2016. The comment period for the Interim Margin Exemptions will end on January 31, 2016.

MARGIN REQUIREMENTS

Who Is Subject to the Final Rules?

The margin requirements in the Final Rules, like those in both the 2011 Proposal and 2014 Proposal (together, the "Proposals"), apply only to Covered Swaps entered into by Covered Swap Entities. A "Covered Swap Entity" is a "Swap Entity" for which one of the Agencies is the prudential regulator. "Swap Entities" include SDs and major swap participants ("MSPs") registered with the CFTC, as well as SBSDs and major security-based swap participants ("MSBSPs") registered with the SEC.⁴

A Covered Swap Entity's counterparty to a Covered Swap is not directly subject to the margin requirements in the Final Rules if such counterparty is not itself a Covered Swap Entity. For instance, a bank that is not required to register as an SD or SBSD, because it only engages in a *de minimis* amount of swap and security-based swap dealing activities, will not be subject to the margin

The text of the Final Rules is available at: https://www.fdic.gov/news/news/press/2015/pr15081.html.

The text of the Interim Margin Exemptions is available at: https://www.fdic.gov/news/news/press/2015/pr15081.html.

The Dodd-Frank Act requires (1) the CFTC to adopt capital and margin requirements for registered SDs and MSPs without prudential regulators and (2) the SEC to adopt such requirements for SBSDs and MSBSPs without prudential regulators.



requirements in the Final Rules, nor will a nonbank entity that is not regulated by any of the Agencies be subject to such requirements. However, to the extent an entity enters into Covered Swaps with a Covered Swap Entity, it will be indirectly impacted by the margin requirements because the Covered Swap Entity will be required to collect margin from, and in certain situations, post margin to, its counterparty in the manner prescribed in the Final Rules.

Classification of Swap Counterparties

Generally

The Final Rules adopt a risk-based approach to margin requirements to ensure the safety and soundness of each Covered Swap Entity, taking into account the risk posed by the Covered Swap Entity's counterparties in establishing minimum initial and variation margin amounts that a Covered Swap Entity must exchange with its counterparties. To that end, the Final Rules divide a Covered Swap Entity's counterparties into the following four categories:

- Counterparties that are themselves Swap Entities,
- Counterparties that are financial end users with a material swaps exposure,
- Counterparties that are financial end users without a material swaps exposure, and
- Counterparties that are neither Swap Entities nor financial end users, including nonfinancial end users, sovereigns and multilateral development banks, to the extent their Covered Swaps do not qualify for an exemption under the Interim Margin Exemptions from the margin requirements in the Final Rules ("Other Counterparties").

Financial End Users

Under the Final Rules, a financial end user is an entity that is not a Swap Entity and is one of a number of enumerated types of entities⁵, including bank holding companies, savings and loan holding companies, depository institutions, foreign banks, federal and state credit unions, insurance companies, investment funds and nonbank financial institutions supervised by the FRB. The Final Rules also exclude certain enumerated entities from the "financial end user" definition.

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See <u>Attachment 1</u> to this memorandum for a full list of the enumerated types of financial end users as well as a list of entities that are excluded from this category.



The Final Rules treat financial end users with a "material swaps exposure" ("Material Financial End Users") differently from those without a material swaps exposure. A financial end user has a "material swaps exposure" if such entity and its affiliates have an average daily aggregate notional amount of Covered Swaps and foreign exchange forwards and swaps⁶ with all counterparties for June, July and August of the previous calendar year that exceeds \$8 billion, where such amount is calculated only for business days. While the Final Rules impose margin requirements only on Covered Swaps (and not on foreign exchange forwards and swaps, which the Treasury Department has exempted from the definition of "swap"), the Final Rules provide that the determination of material swaps exposure must also include foreign exchange forwards and swaps. But a party shall not count any swap or security-based swap that is exempt from the Final Rules under the Interim Margin Exemptions. Although the Final Rules do not explicitly provide how a Covered Swap Entity should determine whether a financial end user has a material swaps exposure, the Agencies believe that it would be reasonable for a Covered Swap Entity to rely in good faith on the reasonable representations of its counterparties as to their status.

A financial end user is required to count its Covered Swaps and foreign exchange forwards and swaps with all of its counterparties, including its affiliates. However, to avoid double-counting, the Final Rules clarify that inter-affiliate swaps should be counted only one time.

Additionally, an entity's designation as a Material Financial End User is not permanent; rather, the Final Rules permit an entity that is a Material Financial End User in one year (based on its swaps exposure in June, July and August of the prior year) to recalculate its swaps exposure in each successive year to determine whether its status has changed.

 If a Covered Swap Entity's counterparty's status changes such that a Covered Swap with that counterparty becomes subject to stricter margin requirements, the Covered Swap Entity must comply with the stricter margin requirements for Covered Swaps entered into with that counterparty after the status change, but not for Covered Swaps entered into prior to such

A "foreign exchange forward" and a "foreign exchange swap" refer to those foreign exchange products defined in Section 1a(24) and 1a(25), respectively, of the CEA, and which are those products that are excluded from the definition of "swap" by the determination of the Secretary of the Treasury. Please refer to our client memorandum, "Treasury Secretary Exempts Certain Foreign Exchange Swaps and Forwards from the Swap Definition," dated November 20, 2012, available at: http://www.debevoise.com/newseventspubs/publications/detail.aspx?id=2b8b2e69-ddd6-4731-8694-146012c12dc7.



status change. The parties may document the old and new swaps as separate portfolios for netting purposes under an "eligible master netting agreement" (as defined below), and exchange initial margin only for the new portfolio of Covered Swaps entered into during the calendar year after the counterparty became a Material Financial End User.

• If a Covered Swap Entity's counterparty's status changes such that a Covered Swap with that counterparty becomes subject to less strict margin requirements, the Covered Swap Entity may comply with the less strict margin requirements for Covered Swaps entered into with that counterparty after the status change, as well as for any outstanding Covered Swaps entered into before the status change. Any initial margin that had previously been collected while the counterparty had a material swaps exposure could be returned if agreed by both parties.

Compliance Dates and Eligible Master Netting Agreements

Compliance Dates

As we describe in more detail at the end of this memorandum, the Final Rules set forth a number of different compliance dates by which Covered Swap Entities would be required to begin complying with the margin requirements. The compliance date for initial margin requirements ranges from September 1, 2016 to September 1, 2020, and the compliance date for variation margin requirements is either September 1, 2016 or March 1, 2017, in each case depending on the measured swaps exposure ⁷ of the Covered Swap Entity and its affiliates, on the one hand, and its counterparty and its affiliates, on the other hand.

The margin requirements would become effective with respect to any Covered Swap to which a Covered Swap Entity becomes a party on or after the relevant compliance date, and would continue to apply regardless of future changes in swaps exposure of the Covered Swap Entity or its counterparty for the purposes of determining the applicable phase-in compliance date.

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While the margin requirements in the Final Rules apply only to Covered Swaps, the applicable compliance date for initial and variation margin requirements with respect to a particular Covered Swap is based on a Covered Swap Entity's and its counterparty's exposure arising from both Covered Swaps and foreign exchange forwards and swaps.



Eligible Master Netting Agreement

Because the 2014 Proposal would not have permitted the establishment of separate netting sets under a single "eligible master netting agreement" ("EMNA") for purposes of the margin requirements, a Covered Swap Entity would have faced a choice between (1) applying the margin requirements to both pre-compliance date and post-compliance date transactions or (2) separating their pre-compliance date and post-compliance date transactions into two separate master netting agreements with the risk that the two master netting agreements may be deemed to be two separate EMNAs.

The Final Rules, on the other hand, permit the establishment of separate netting portfolios, for purposes of the margin rules (if each netting portfolio independently meets the requirement for close-out netting), under a single EMNA, such that a Covered Swap Entity may avoid subjecting its precompliance date Covered Swaps to the margin requirements while still maintaining both its pre- and post-compliance date Covered Swaps under a single EMNA. A netting portfolio that contains only post-compliance date Covered Swaps will subject that entire netting portfolio to the margin requirements of the Final Rules, while a netting portfolio that contains only precompliance date Covered Swaps is not subject to such requirements.

However, if a Covered Swap Entity cannot conclude after sufficient legal review with a well-founded basis that a netting agreement (including a netting agreement with two separate netting sets) meets the definition of "eligible master netting agreement," the Covered Swap Entity must treat the Covered Swaps covered by the agreement on a gross basis for the purposes of calculating and complying with the margin collection requirements in the Final Rules, but the Covered Swap Entity would still be permitted to net such Covered Swaps for purposes of its margin posting requirements.

In addition, the Final Rules permit the establishment of separate netting portfolios for Covered Swaps entered into before and after a financial end user's change into a higher risk status (e.g., where a counterparty's swaps exposure increases such that it becomes a Material Financial End User). This addresses the possibility that a Covered Swap Entity might accumulate a portfolio of Covered Swaps with a financial end user that does not have a material swap exposure, but

This refers to the requirement that an EMNA (or, in this case, a netting portfolio covered by an EMNA) must create a single legal obligation for all individual transactions covered by the relevant agreement (or all transactions within the netting portfolio) upon an event of default, including insolvency.



which later becomes a Material Financial End User, such that only those additional Covered Swaps entered into after that change in the counterparty's status would be subject to both initial and variation margin requirements (while those Covered Swaps entered into prior to the status change would only be subject to variation margin requirements).

The Final Rules define "eligible master netting agreement" as a written, legally enforceable agreement that (1) creates a single legal obligation for all individual transactions covered by the agreement upon an event of default (following certain permitted stays, such as in receivership or resolution under the Federal Deposit Insurance Act, Title II of the Dodd-Frank Act, or similar laws of foreign jurisdictions), including upon an event of receivership, conservatorship, insolvency, liquidation or similar proceeding, of the counterparty, and (2) provides the Covered Swap Entity the right to accelerate, terminate and close out on a net basis all transactions under the agreement and to liquidate or set off collateral promptly upon an event of default including upon an event of receivership, conservatorship, insolvency, liquidation or similar proceeding, of the counterparty, without being stayed or avoided under applicable law (other than certain permitted stays).

In order to rely on an EMNA for purposes of calculating margin on a net basis, the Covered Swap Entity must also (1) conduct sufficient legal review to conclude with a well-founded basis that the foregoing requirements are satisfied, that, in the event of a legal challenge (including one resulting from default or insolvency or a similar proceeding), the relevant court and administrative authorities would find the agreement to be legal, valid, binding and enforceable under the laws of the relevant jurisdictions, and (2) establish and maintain written procedures to monitor changes in relevant law and to ensure that the agreement continues to satisfy the foregoing requirements.

General Application of Initial and Variation Margin Requirements

Initial Margin Threshold

The Final Rules permit a Covered Swap Entity to adopt a maximum initial margin threshold amount of \$50 million, below which it need not collect or post initial margin. The threshold will be applied on a consolidated basis with respect to both the Covered Swap Entity (and its affiliates) and its counterparty (and its

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In addition, in order to qualify as an EMNA, the agreement must not contain a "walkaway clause," defined as a provision permitting a non-defaulting counterparty to make a lower payment than it otherwise would make (or no payment at all) to a defaulter (or its estate), even if the defaulter is a net creditor under the agreement.



affiliates). This threshold applies only to initial margin and not to variation margin. As noted in the adopting release accompanying the Final Rules (the "Adopting Release"), the initial margin threshold does not prevent parties from contracting with each other to require the collection of initial margin under a threshold of less than \$50 million.

Definition of "Affiliate" and "Subsidiary"

Unlike the 2014 Proposal, which defined the term "affiliate" based on whether a company owned or controlled 25% or more of another company's voting securities or equity interests, the Final Rules provide that a company is an "affiliate" of another company for purposes of the Final Rules¹¹ if:

- either company consolidates the other on financial statements prepared in accordance with U.S. GAAP, International Financial Reporting Standards ("IFRS"), or similar standards;
- both companies are consolidated with a third company on a financial statement prepared in accordance with such principles or standards;
- for a company that is not subject to such principles or standards, if consolidation as described in the foregoing items would have occurred if such principles or standards had applied; or
- the relevant prudential regulator for a company has determined that the company is an affiliate of another company, based on such regulator's conclusion that either company provides significant support to, or is materially subject to the risks of losses of, the other.

The Final Rules provide a similar definition for the term "subsidiary." 12

The Agencies declined to incorporate the suggestions of certain commenters to apply separate initial margin thresholds to each "separate account" of a single investment fund vehicle or pension plan despite the fact that separate managers acting for the same fund or plan do not currently take steps to inform the fund or plan of their Covered Swap exposures on behalf of their principal on a frequent basis.

The definition of "affiliate" is relevant for purposes of applying the special margin requirements applicable to inter-affiliate swaps (discussed below), determining the applicable compliance date for the Final Rules with respect to a Covered Swap Entity, applying the initial margin threshold, and determining a financial end user has a material swaps exposure.

The Final Rules provide that a company is a "subsidiary" of another company for purposes of the Final Rules if: (1) the company is consolidated by the other company on financial statements prepared in accordance with U.S. GAAP, IFRS, or other similar standards; (2) for a company that is not subject to such principles or standards, if consolidation as described above would have occurred if such principles or standards had



Timing of Compliance with Margin Requirements

A Covered Swap Entity must collect and post initial margin and variation margin on each business day, for a period beginning on or before the business day following the day of execution of the Covered Swap and ending on the date the Covered Swap terminates or expires. "Day of execution" means the calendar day at the time the parties enter into the Covered Swap, subject to special rules when the location of the Covered Swap Entity is in a different time zone than the location of its counterparty. If each party is in a different calendar day at the time the parties enter into the Covered Swap, the day of execution is deemed to be the latter of the two calendar dates. Additionally, if a Covered Swap is entered into after 4:00 p.m. in the location of a party or is entered into on a day that is not a business day in the location of a party, the Covered Swap is deemed to have been entered into on the immediately succeeding day that is a business day for both parties.

Application of Minimum Transfer Amount

A Covered Swap Entity need not collect or post initial or variation margin from or to any single counterparty (for which such margin requirements would otherwise apply) unless and until the required cumulative amount of initial and variation margin transfer is greater than \$500,000. Unlike the initial margin threshold discussed above, this minimum transfer amount applies to Covered Swaps with a single counterparty, rather than to a consolidated group of the counterparty and its affiliates. Therefore, a Covered Swap Entity will not have to pay or collect variation margin to or from a financial end user without a material swaps exposure until the cumulative variation margin exceeds \$500,000.

Counterparty Refusal to Post or Collect Margin

A Covered Swap Entity is not deemed to have violated its obligations to post or collect initial or variation margin from or to a counterparty where its counterparty has refused or otherwise failed to provide or accept the required margin to or from the Covered Swap Entity, if the Covered Swap Entity has (1) made the necessary efforts to collect or post the required margin (including the timely initiation and pursuit of formal dispute resolution mechanisms) or has otherwise demonstrated upon request to the satisfaction of the appropriate

applied; or (3) the relevant prudential regulator for a company has determined that the company is a subsidiary of the other company, based on its conclusion that either company provides significant support to, or is materially subject to the risks of losses of, the other company. We note that the term "subsidiary" is used throughout the cross-border provisions of the Final Rules (discussed below).



Agency that it has made appropriate efforts to collect or post the required margin, or (2) commenced termination of the Covered Swap with the counterparty promptly following the applicable cure period and notification requirements.

Application of Margin Requirements to Transactions with Different Types of Counterparties

Transactions with Swap Entities

<u>Initial Margin</u>. A Covered Swap Entity that enters into a Covered Swap with another Swap Entity must collect initial margin for such Covered Swap in an amount that is not less than the positive difference of (1) the initial margin collection amount for the Covered Swap <u>less</u> (2) the initial margin threshold amount (excluding any portion of the initial margin threshold already applied by the Covered Swap Entity or its affiliates to other Covered Swaps with the counterparty or its affiliates). The other Swap Entity will also be subject to initial margin collection requirements applicable to it under either the Final Rules or another regulatory regime applicable to it (e.g., CFTC or SEC margin rules).

<u>Variation Margin</u>. A Covered Swap Entity that enters into a Covered Swap with another Swap Entity must post variation margin to or collect variation margin from such counterparty, as applicable, depending on the value of the Covered Swap.

Transactions with Financial End Users

<u>Initial Margin</u>. For a Covered Swap between a Covered Swap Entity and a Material Financial End User, the minimum amount of initial margin that must be collected by the Covered Swap Entity is the same as the minimum required collection amount for its transactions with another Swap Entity. In addition, a Covered Swap Entity must post initial margin to the Material Financial End User in at least the same amount that the Covered Swap Entity would be required to collect (under the Final Rules) if the Covered Swap Entity were in the place of the Material Financial End User counterparty.

A Covered Swaps Entity transacting with a financial end user without a material swaps exposure is not subject to the initial margin requirements in the Final Rules, and is only required to collect the amount of initial margin that it determines to be appropriate to address the credit risk posed by such financial end user and the risk of the transaction.



<u>Variation Margin</u>. A Covered Swap Entity that enters into a Covered Swap with any financial end user (whether or not a Material Financial End User) must post variation margin to or collect variation margin from such counterparty, as applicable (depending on the value of the Covered Swap).

Transactions with Other Counterparties

The Final Rules neither provide a general exemption for transactions between a Covered Swap Entity and an Other Counterparty from the Agencies' mandatory initial and variation margin requirements (except as provided in the Interim Margin Exemptions), nor set any specific numerical requirements for initial or variation margin with respect to such transactions. Instead, a Covered Swap Entity must collect initial or variation margin as it determines appropriate to address the credit risk posed by such Other Counterparty and the risks of such transactions.

Segregation of Initial Margin

The Final Rules impose margin segregation requirements with respect to initial margin, but not to variation margin. A Covered Swap Entity that posts any collateral (other than variation margin) for a Covered Swap must require its counterparty to segregate all such funds or other property at one or more independent third-party custodians. This applies not only to the minimum initial margin that the Covered Swap Entity is required to post under the Final Rules, but also to any collateral (other than variation margin) posted for other reasons, including as a result of negotiations between the parties, that is in excess of or in addition to what is required under the Final Rules (such as initial margin posted to a financial end user without a material swaps exposure or to another Covered Swap Entity where the exposure is below the \$50 million initial margin threshold amount).

Additionally, a Covered Swap Entity that collects initial margin amounts required under the Final Rules for a Covered Swap must hold such initial margin at one or more independent third-party custodians. This segregation requirement, unlike the margin posting requirement, applies only to the minimum initial margin that the Covered Swap Entity is required to collect under the Final Rules (*i.e.*, any additional margin collected by a Covered Swap Entity does not have to be segregated).

An independent third-party custodian must act pursuant to a custody agreement that prohibits the custodian from rehypothecating, re-pledging, reusing, or otherwise transferring (through securities lending, repurchase agreement or



other means) any initial margin it holds, except that cash collateral may be held in a general deposit account with the custodian provided that the funds in the account must be used to purchase other forms of eligible collateral, such eligible noncash collateral must be segregated in compliance with the Final Rules, and such purchase must take place within a time period reasonably necessary to consummate such purchase after the cash collateral is posted.

A custody agreement may permit the posting party to substitute or direct any reinvestment of posted collateral held by the custodian so long as, with respect to the minimum initial margin that is required to be posted or collected by a Covered Swap Entity, the agreement requires the posting party to:

- substitute only funds or other property that would qualify as eligible collateral and for which the amount (net of applicable haircuts)¹³ would be sufficient to meet the initial margin posting requirements; and
- direct reinvestment of funds only in assets that would qualify as eligible collateral and for which the amount (net of applicable haircuts) would be sufficient to meet the initial margin posting requirements.

The restrictions on the substitution of collateral described above apply only to the initial margin that is required to be posted or collected pursuant to the Final Rules and do not apply to any collateral that has been posted in excess of or in addition to the required initial margin minimum amounts.

INITIAL MARGIN CALCULATION

The Final Rules permit a Covered Swap Entity to select from two alternative methods to calculate its initial margin requirements on a daily basis. First, the Covered Swap Entity may calculate its initial margin using a standardized look-up table (set forth as Appendix A to the Final Rules)¹⁴ specifying the minimum initial margin requirement, expressed as a percentage of the notional amount of the Covered Swap. Alternatively, the Covered Swap Entity may calculate its minimum initial margin requirement using an internal model, so long as the

Appendix B to the Final Rules includes a table with the applicable haircut percentages for various types of initial margin collateral. The table is attached to this memorandum as Attachment 2.

This standardized look-up table is attached as <u>Attachment 3</u> to this memorandum.



internal model satisfies certain criteria¹⁵ on an ongoing basis and is approved in advance by the relevant prudential regulator.

The Final Rules allow for the recognition of portfolio effects and offsetting exposures within a portfolio of swaps with a counterparty under both approaches.

It is worth noting that because a Covered Swap Entity is permitted to use its own internal model in determining the initial margin amount for a Covered Swap, a valuation dispute on the initial margin amount of a Covered Swap entered into between two Covered Swap Entities may occur as the parties may not be using the exact same internal model. The Final Rules leave the resolution of any such dispute to the parties (based on the terms of the parties' required trading documentation regarding procedures for resolving such disputes, as discussed below). However, if there is an unresolved dispute between the two Covered Swap Entities, they may be subject to adverse consequences under the Agencies' risk-based capital rules in determining the counterparty credit mitigation impact of collateral.

Internal Models for Calculating Initial Margin

The Final Rules permit a Covered Swap Entity to use an internal model to calculate initial margin for a Covered Swap or netting set thereof covered by an EMNA, subject to certain criteria described in <u>Attachment 4</u> to this memorandum.

Standardized Initial Margin Calculation

Covered Swap Entities that are unable or unwilling to implement the technology and make the related infrastructure investments necessary to satisfy the foregoing criteria must calculate their initial margin using the standardized look-up table. The standardized initial margins in the table depend on the asset class, and in the case of the credit and interest rate asset classes, the duration of the underlying non-cleared swap. As in the case of internal-model-generated initial margins, the standardized initial margin calculation must also be performed on a daily basis.

The standardized calculation in the Final Rules allows for the recognition of risk offsets/offsetting exposures through the use of a "net-to-gross ratio" in cases

The Agencies note that the modeling standards for internal models under the Final Rules are broadly similar to the modeling standards that are already required for such models in the context of risk-based capital rules.



where a portfolio of Covered Swaps is governed by an EMNA. Under the standardized calculation, the initial margin amount for multiple Covered Swaps subject to an EMNA is calculated using the formula described in <u>Attachment 5</u> to this memorandum.

The "net-to-gross ratio" calculation is applied only to swaps subject to the same EMNA.¹⁶ However, unlike the internal model approach (which allows netting only within each asset class), the standardized calculation of "net-to-gross ratio" is performed across transactions in disparate asset classes that are all governed by a single EMNA (consistent with the standardized counterparty credit risk capital requirements).

Combined Use of Internal Models and Standardized Approaches

The Agencies acknowledge that it is appropriate under certain circumstances for a Covered Swap Entity to employ both an internal model-based and standardized approach to calculating initial margins. However, the Agencies stress that it would not be appropriate for a Covered Swap Entity to cherry-pick by choosing whichever approach produces the lowest margin requirement (based on differences between the two approaches across different types of swaps); rather, the choice of which method to use should be based on fundamental considerations apart from which produces the more favorable result. Furthermore, since the Agencies do not anticipate a need for Covered Swap Entities to switch between the two approaches for a particular counterparty absent a significant change in the nature of the entity's swap activities, a Covered Swap Entity must provide a rationale for changing methodologies if so requested by its prudential regulator.

VARIATION MARGIN CALCULATION

A Covered Swap Entity transacting with another Swap Entity or with a financial end user must collect and post daily variation margin on a Covered Swap in an amount that is at least equal to the cumulative mark-to-market change in value (to the Covered Swap Entity) of the Covered Swap, as measured from the date it is entered into (or, in the case of a Covered Swap that has a positive or negative value on the date it is entered into, such positive or negative value plus any cumulative mark-to-market change in value of the Covered Swap after such

Where a party maintains multiple swap portfolios under one or multiple EMNAs, the standardized initial margin amounts would be calculated separately for each portfolio with each calculation using the gross initial margin and NGR relevant to the portfolio (and would then be added together to arrive at the total standardized initial margin).



date), <u>less</u> the value of all variation margin previously collected, <u>plus</u> the value of all variation margin previously posted with respect to the Covered Swap.

A Covered Swap Entity may calculate variation margin requirements on an aggregate net basis across all Covered Swaps with a counterparty that are executed under a single EMNA (or, where an EMNA includes multiple netting sets, across only those Covered Swaps within a single netting set, separate from and exclusive of any other swaps covered by the EMNA).

TRANSACTIONS WITH AFFILIATES

The margin requirements generally apply to Covered Swaps between a Covered Swap Entity and its affiliates, unless (1) the Covered Swap Entity qualifies for an exemption under the Interim Margin Exemptions from the margin requirements in the Final Rules (based on an exemption or exception from clearing) or (2) certain special rules for inter-affiliate transactions (set forth in the Final Rules) apply. To the extent that the other provisions of the Final Rules are inconsistent with the special rules for inter-affiliate transactions, the special rules apply.

Initial Margin

The special rules provide that a Covered Swap Entity does not need to post initial margin to an affiliate that is not a Covered Swap Entity (*i.e.*, an affiliate that is a Material Financial End User), but must calculate the amount of initial margin that would be required to be posted to an affiliate and provide documentation of such amount to each affiliate daily.

Initial Margin Threshold Amount

The Final Rules provide a special initial margin threshold amount of \$20 million for purposes of calculating the amount of initial margin to be collected from each affiliate that is a Covered Swap Entity or the amount of initial margin that would have been posted to an affiliate that is a Material Financial End User. For example, if a Covered Swap Entity engages in three inter-affiliate swaps with an initial margin amount of \$100 million each with three separate affiliates, the total amount of initial margin that the Covered Swap Entity would be required to collect would be ((\$100m - \$20m) + (\$100m - \$20m) + (\$100m - \$20m)) = \$240m. This calculation excludes Covered Swaps that are exempt from the margin requirements under the Interim Margin Exemption.



Variation Margin

The variation margin requirements applicable to Covered Swaps between affiliates are the same as the variation margin requirements that apply to Covered Swaps between unaffiliated counterparties.

Custodian for Noncash Collateral

To the extent that a Covered Swap Entity collects from an affiliate initial margin required by the Final Rules in the form of noncash collateral, the Covered Swap Entity (or any affiliate thereof) may serve as the custodian for the noncash collateral, but all other requirements (including the prohibition of re-hypothecation) will apply with respect to such collateral. Initial margin collected from an affiliate in cash must be held at an independent third-party custodian and must promptly be reinvested pursuant to the Final Rules.

Model Holding Period, Netting, and the Standardized Initial Margin Calculation

To calculate initial margin using an internal model for an inter-affiliate Covered Swap (or a netting portfolio thereof) that would have been required to be cleared under section 2(h)(1)(A) of the CEA or 3C(a)(1) of the Exchange Act but for a clearing exemption (under the CEA, the Exchange Act, or regulations of the CFTC or the SEC thereunder), the initial margin model calculation may use a holding period equal to the shorter of five (5) business days or the maturity of the Covered Swap or netting portfolio (instead of the 10-day holding period for transactions between unaffiliated counterparties).

However, for the purposes of calculating initial margin requirements using an internal model, a Covered Swap Entity must identify and separate netting portfolios that contain any Covered Swaps with a 5-day (or shorter) holding period from any other netting portfolio, and must calculate initial margin separately for those swaps margined on a 5-day basis and those swaps margined on a 10-day basis. The total initial margin that must be collected on the portfolio is equal to the aggregate initial margin required to be collected on the netting sets with a 5-day holding period and that which is required to be collected on the netting sets with a 10-day holding period.

For a Covered Swap Entity that calculates its initial margin using a standardized look-up table (set forth in Appendix A to the Final Rules), the initial margin amount for inter-affiliate swaps is reduced by 30% (that is, the Gross Initial Margin is multiplied by 0.7).



ELIGIBLE COLLATERAL

The Final Rules establish a list of eligible collateral that may be used to meet minimum initial and variation margin requirements, depending on the type of counterparty with which a Covered Swap Entity enters into a Covered Swap. With respect to transactions and counterparties for which there is no minimum initial or variation margin requirement under the Final Rules, the Covered Swap Entity can accept any form of collateral that is agreed to with its counterparties.

Transactions with Swap Entities

A Covered Swap Entity that enters into a Covered Swap with another Swap Entity must collect variation margin solely in the form of immediately available cash (denominated either in U.S. dollars, another major currency, or in the currency of settlement).

However, with respect to initial margin that is required for Covered Swaps entered into between a Covered Swap Entity and a Swap Entity, the Final Rules permit the use of cash collateral (denominated either in U.S. dollars, another major currency, ¹⁷ or in the currency of settlement ¹⁸) and any of the following: ¹⁹

- A security issued by, or unconditionally guaranteed as to the timely payment of principal and interest by, the U.S. Treasury Department;
- A security issued by, or unconditionally guaranteed as to the timely payment of principal and interest by, a U.S. government agency (other than the U.S. Treasury Department) whose obligations are fully guaranteed by the full faith and credit of the U.S. government;

The Final Rules define the following as a "major currency": United States Dollar, Canadian Dollar, Euro, United Kingdom Pound, Japanese Yen, Swiss Franc, New Zealand Dollar, Australian Dollar, Swedish Kronor, Danish Kroner, Norwegian Krone, and any other currency as determined by the prudential regulator of the covered swap entity.

The Final Rules define "currency of settlement" as a currency in which a party has agreed to discharge payment obligations related to a Covered Swap or a group of Covered Swaps subject to a master agreement at the regularly occurring dates on which such payments are due in the ordinary course. The Agencies note that, in determining the currency of settlement, the Agencies will look to the contractual and operational practice of the parties in liquidating their periodic settlement obligations for a Covered Swap in the ordinary course, absent a default by either party.

The Agencies note that counterparties that wish to rely on assets that do not qualify as eligible collateral may still pledge those assets with a cash or securities lender in a separate arrangement, using the cash or other eligible collateral received from that separate arrangement to meet the minimum margin requirements.



- A security issued by or fully guaranteed as to the timely payment of principal and interest by the European Central Bank or a sovereign entity that is assigned no higher than a 20% risk weight under the Agencies' capital rules applicable to the Covered Swap Entity;
- A publicly traded debt security issued by, or an asset-backed security fully
 guaranteed as to the timely payment of principal and interest by a U.S.
 Government-sponsored enterprise ("GSE") that is operating with capital
 support or other direct financial assistance received from the U.S.
 government that enables the repayments of the GSE's eligible securities;
- A publicly traded debt security (other than an asset-backed security), that is
 issued by a GSE not operating with capital support or another form of direct
 financial assistance from the U.S. government and that the Covered Swap
 Entity determines is "investment grade" (as defined by the appropriate
 prudential regulator);
- A security issued by or unconditionally guaranteed as to the timely payment
 of principal and interest by the Bank for International Settlements, the
 International Monetary Fund or a multilateral development bank;
- A publicly traded debt security that the Covered Swap Entity determines is "investment grade" (as defined by the appropriate prudential regulator);
- A publicly traded common equity security included in the S&P Composite 1500 Index, an index that a Covered Swap Entity's supervisor in a foreign jurisdiction recognizes for the purposes of including publicly traded common equity as initial margin, or any other index for which a Covered Swap Entity can demonstrate that the equities represented are as liquid and readily marketable as those included in the S&P's Composite 1500 Index;
- Certain redeemable government bond funds;²⁰ and
- Gold.

Redeemable government bond funds are eligible collateral if they are redeemable securities in a pooled investment fund that only holds securities issued by, or unconditionally guaranteed by, the U.S. Treasury Department and U.S. dollars. To provide a parallel collateral option for non-cleared swaps not denominated in dollars, the Final Rules also permit a pooled investment fund that only holds securities denominated in the common currency and issued by or fully guaranteed by the European Central Bank or a sovereign entity that is assigned no higher than a 20% risk weight under the capital rules applicable to the Covered Swap Entity and cash funds denominated in the same foreign currency. The Final Rules additionally require that such pooled investment funds must issue redeemable securities representing the holder's proportional interest in the fund's net assets, issued and redeemed only on the basis of the fund's net assets prepared each business day after the holder makes its investment commitment or redemption request to the fund. The Final Rules also provide that assets of the fund may not be transferred or otherwise rehypothecated.



Transactions with Financial End Users

Under the Final Rules, assets that are eligible as initial margin for transactions where a Covered Swap Entity enters into a Covered Swap with a Swap Entity (as described above) are also eligible as initial margin and variation margin for transactions where a Covered Swap Entity enters into a Covered Swap with a financial end user (with or without a material swap exposure).

Exceptions, Haircuts, and Other Issues

To avoid general "wrong way risk," the Final Rules restrict eligible collateral to exclude any securities issued by (1) a bank holding company, a savings and loan holding company, a U.S. intermediate holding company established or designated for purposes of compliance with the FRB's Regulation YY, a foreign bank, a depository institution, a market intermediary, or any company that would be one of the foregoing if it were organized under the laws of the United States or any state thereof, or an affiliate of one of the foregoing; or (2) a nonbank systemically important financial institution designated by the Financial Stability Oversight Council. In addition, to avoid specific "wrong way" risk, the Final Rules also prohibit the use of any security issued by a counterparty or its affiliates as eligible collateral with respect to Covered Swaps entered into with that counterparty.

A Covered Swap Entity must monitor the market value and eligibility of all collateral collected and posted to satisfy its minimum initial and variation margin requirements and to ensure that all applicable minimum margin requirements remain satisfied on a daily basis.

The value of the eligible collateral posted to satisfy the initial margin or variation margin requirements is subject to certain haircuts that vary by asset class, as set forth in Appendix B to the Final Rules (see Attachment 2 to this memorandum). In addition to the haircuts by asset class, the Final Rules also impose a further 8% discount to the value of any eligible collateral collected or posted to satisfy the margin requirements: (1) for variation margin collateral denominated in a currency that is not the currency of settlement for the Covered Swap, except when the collateral is immediately available cash denominated in U.S. dollars or another major currency; and (2) for initial margin collateral denominated in a currency that is not the currency of settlement for the Covered Swap, except for eligible types of collateral denominated in a single termination currency designated as payable to the non-posting counterparty as part of the EMNA.



TRADE DOCUMENTATION

The Final Rules require Covered Swap Entities to execute trading documentation with Swap Entities or financial end users regarding credit support arrangements. The documentation must:

- provide the Covered Swap Entity and its counterparty with the contractual rights and obligations to collect and post initial and variation margin in the form and amounts and under such circumstances required by the Final Rules;
- specify the methods, procedures, rules, and inputs for determining the value of each Covered Swap for purposes of calculating variation margin requirements;
- specify the procedures by which any disputes concerning the valuation of such Covered Swaps, or the valuation of assets collected or posted as initial or variation margin, may be resolved; and
- describe the methods, procedures, rules, and inputs used to calculate initial
 margin for Covered Swaps entered into between the Covered Swap Entity
 and the counterparty.

Compliance with the applicable CFTC or SEC swap trading documentation requirements²¹ is not deemed to constitute compliance with the Final Rules' documentation requirements.

CROSS-BORDER APPLICATION

The Final Rules provide a limited exception for foreign swaps and security-based swaps of a foreign Covered Swap Entity. More specifically, the extraterritorial application of the Final Rules can be divided into three groups of transactions:

- U.S. Covered Swap Entities transacting with a foreign counterparty;
- Foreign Covered Swap Entities transacting with a foreign counterparty (without any guarantee²² from a U.S. entity or an entity controlled by a U.S. entity); and

For CFTC final rules, see Part 23, subpart I of the CFTC regulations; see also 77 Fed. Reg. 55903 (Sep. 11, 2012). For SEC proposed rules, 76 Fed. Reg. 3859 (Jan. 21, 2011); see also 78 Fed. Reg. 30800 (May 23, 2013) (reopening of comment period).

The Final Rules define "guarantee" as an arrangement pursuant to which one party to a Covered Swap has rights of recourse against a third-party guarantor, with respect to its counterparty's obligations under the Covered Swap. For these purposes, a party to a Covered Swap has rights of recourse against a guarantor if the party has a conditional or unconditional legally enforceable right to receive or otherwise collect, in whole or in part, payments from the guarantor with respect to its counterparty's obligations under the



• Foreign Covered Swap Entities transacting with a U.S. counterparty (or with a foreign counterparty, where one party is guaranteed by a U.S. entity or an entity controlled by a U.S. entity).

U.S. Covered Swap Entities Transacting with Foreign Counterparties

A U.S. Covered Swap Entity's margin posting obligation to a foreign counterparty that is subject to a foreign regulatory margin framework can be satisfied by relying on a substituted compliance determination obtained by the foreign counterparty with respect to the counterparty's margin collection requirement (unless otherwise stated in the substituted compliance determination) as long as the foreign counterparty does not have a U.S. guarantee, but the U.S. Covered Swap Entity must collect the amount of margin required under the Final Rules.

Foreign Covered Swap Entities Transacting with Foreign Counterparties with No Guarantee

The Final Rules establish a limited exception to their reach for those swap activities that are significantly outside of the direct interests of any U.S.-based entity. Specifically, the margin requirements would not apply to a "Foreign Covered Swap" of a "Foreign Covered Swap Entity."

A "Foreign Covered Swap" includes any non-cleared swap or security-based swap of a Foreign Covered Swap Entity to which neither the counterparty nor any guarantor (on either the side of the counterparty or the Foreign Covered Swap Entity) is (1) an entity organized under the laws of the U.S. or any state thereof (including a U.S. branch, agency or subsidiary²³ of a foreign bank), or a natural person who is a resident of the U.S., (2) a branch or office of an entity organized under the laws of the U.S. or any state thereof, or (3) a Swap Entity that is a

Covered Swap. In addition, any arrangement pursuant to which the guarantor has a conditional or unconditional legally enforceable right to receive or otherwise collect, in whole or in part, payments from any other third-party guarantor with respect to the counterparty's obligations under the Covered Swap will be deemed a guarantee of the counterparty's obligations under the swap by the other guarantor.

The Final Rules state that a company is a "subsidiary" of another if (1) the company is consolidated by the other company on financial statements prepared in accordance with U.S. Generally Accepted Accounting Principles, the International Financial Reporting Standards, or other similar standards; (2) for a company that is not subject to such accounting principles or standards, if consolidation as described above would have occurred if such accounting principles or standards had applied; or (3) an Agency has determined that a company is a subsidiary of the other company, based on the Agency's conclusion that either company provides significant support to, or is materially subject to the risks of losses of, the other company.



subsidiary of an entity that is organized under the laws of the United States or any state thereof.

A "Foreign Covered Swap Entity" is a Covered Swap Entity that is not (1) an entity organized under the laws of the U.S. or any state thereof (including a U.S. branch, agency or subsidiary of a foreign bank), (2) a branch or office of an entity organized under the laws of the U.S. or any state thereof, or (3) an entity that is a subsidiary of an entity that is organized under the laws of the U.S. or any state thereof. In other words, a Covered Swap Entity is eligible to be treated as a "Foreign Covered Swap Entity" only if it is located outside of the U.S., organized under foreign law and is not a subsidiary of a U.S. company (such as a foreign bank). ²⁴ As such, neither the U.S. branch of a foreign bank nor the U.S. subsidiary of a foreign company would be considered to be a "Foreign Covered Swap Entity" under the Final Rules.

Foreign Covered Swap Entities Transacting with U.S. Counterparties and Transactions Subject to U.S. Guarantees

The exemption from the Final Rules is not available for a Foreign Covered Swap Entity's transactions (1) with U.S. counterparties or (2) with foreign counterparties, where one of the parties is guaranteed by a U.S. person. Therefore, substituted compliance with a foreign jurisdiction's margin requirement is not available to a swap or security-based swap entered into by a Covered Swap Entity if its obligations are guaranteed by a U.S entity or a natural person that is a U.S. resident.

Substituted Compliance

Substituted compliance with the margin requirements of a foreign jurisdiction may be available for a Covered Swap Entity in certain situations if the Agencies jointly determine that such foreign regulatory framework is comparable to the requirements of the Final Rules. The determination will be made on a jurisdiction-by-jurisdiction basis and may be conditional or unconditional.

Additionally, since the Dodd-Frank Act requires SDs and SBSDs for which one of the Agencies is the prudential regulator (for purposes of Title VII) to comply with that Agency's margin rule for non-cleared swaps, and since the CFTC and the SEC have adopted interpretive guidance and final rules clarifying that foreign subsidiaries of U.S. firms engaging in swaps activities abroad are not required to register with the CFTC or SEC solely on account of their parent's presence in the United States, the Agencies note that there may be circumstances in which, for instance, a foreign subsidiary of a U.S. insured depository institution, including foreign subsidiaries of Edge Act corporations, may engage in non-cleared swaps activities abroad without having to register with the CFTC or SEC, and thus without being covered by the margin requirements of the Final Rules.



Therefore, certain types of Covered Swap Entities operating in foreign jurisdictions would be able to meet the requirements of the Final Rules by complying with the foreign margin regulations as long as the Covered Swap Entities' obligations under the swaps are not guaranteed by a U.S. entity or a natural person that is a U.S. resident.

A Covered Swap Entity may be eligible for substituted compliance determination (a "Substituted Compliance Eligible CSE") if:

- Its obligations under the Covered Swap are not guaranteed by (1) an entity organized under the laws of the United States or any state thereof (other than a U.S. branch or agency of a foreign bank) or a natural person who is a resident of the U.S. or (2) a branch or office of an entity organized under the laws of the U.S. or any state thereof; and
- The Covered Swap Entity is (1) a Foreign Covered Swap Entity, (2) a U.S. branch or agency of a foreign bank or (3) a foreign subsidiary of a depository institution, Edge corporation or agreement corporation.

A Substituted Compliance Eligible CSE may request a substituted compliance determination with respect to its Covered Swap activities only if its swap activities are directly supervised by the authorities administering the relevant foreign regulatory framework. The request must include a description of:

- the scope and objectives of the foreign regulatory framework;
- the specific provisions of the foreign regulatory framework that govern (1) the scope of transactions covered, (2) the determination of required initial and variation margin amounts and the calculations used, (3) the timing of margin requirements, (4) any documentation requirements, (5) the forms of eligible collateral, (6) any segregation and rehypothecation requirements and (7) the approval process and standards for models used in calculating initial and variation margin;
- the supervisory compliance program and enforcement authority exercised by the foreign financial regulatory authority (or authorities) to support its oversight of the application of this regulatory framework and how that framework applies to the Covered Swap Entity's Covered Swaps; and
- any other descriptions and documentation the prudential regulators determine appropriate.

In determining whether to permit substituted compliance with respect to a particular foreign regulatory framework, the Agencies will jointly make a



comparability determination that will focus on the outcomes produced by the entire foreign framework (e.g., margin posting requirements, collection requirements, model requirements, eligible collateral and segregation requirements) as compared to the U.S. framework. The Agencies generally will not require that every aspect of the foreign regulatory framework be comparable to every aspect of the U.S framework but will take a holistic view and take into consideration factors such as the scope, objectives and specific provisions of the foreign framework and the effectiveness of the supervisory compliance program administered, and the enforcement authority exercised, by the relevant foreign regulatory authorities.

While the Agencies would accept a request from a Covered Swap Entity for a determination that it be allowed to comply with a foreign regulatory framework if a favorable comparability determination were made with respect to the foreign framework, once the Agencies make a favorable comparability determination for a foreign regulatory framework, any Covered Swap Entity could comply with the foreign framework (to satisfy its obligations under the Final Rules) without making a specific request.

The Final Rules additionally provide a *de minimis* exception for swap activities conducted in jurisdictions for which substituted compliance is not available, including in jurisdictions that do not have a legal framework to support netting and segregation. Specifically, the Final Rules provide that the requirements to post and segregate collateral do not apply to a Covered Swap entered into by (1) a foreign branch of a Covered Swap Entity that is a U.S. depository institution or (2) a Covered Swap Entity that is not organized under the laws of the U.S. or any state thereof and is a subsidiary of a U.S. depository institution, Edge corporation, or agreement corporation if all of the following requirements are met:

- Inherent limitations in the legal or operational infrastructure in the foreign
 jurisdiction make it impracticable for the Covered Swap Entity and the
 counterparty to post any form of eligible initial margin collateral in
 compliance with the segregation requirements;
- The Covered Swap Entity is subject to foreign regulatory restrictions that
 require the Covered Swap Entity to transact in the Covered Swap with the
 counterparty through an establishment within the foreign jurisdiction and
 do not accommodate the posting of collateral for the Covered Swap outside
 the jurisdiction;
- The counterparty and its obligations under the Covered Swap are not guaranteed by: (i) an entity organized under the laws of the United States or any state thereof or a natural person who is a resident of the United States or



- (ii) a branch or office of an entity organized under the laws of the United States or any state thereof;
- The Covered Swap Entity collects initial margin for the Covered Swap in the form of cash (denominated either in U.S. dollars, another major currency, or in the currency of settlement of the Covered Swap), and posts and collects variation margin in the form of cash (denominated either in U.S. dollars, another major currency, or in the currency of settlement of the Covered Swap); and
- The prudential regulator of the Covered Swap Entity approves in writing in advance for the Covered Swap Entity's reliance on this exception for the foreign jurisdiction.

COMPLIANCE DATES

The dates on which a Covered Swap Entity must begin complying with the initial and variation margin requirements with respect to Covered Swaps entered into on or after such dates depend on the average daily aggregate notional amount of all outstanding Covered Swaps and foreign exchange forwards and swaps (such amount, the "Phase-In Trigger Amount") of the Covered Swap Entity (combined with its affiliates) and its counterparty (combined with its affiliates) over a specified three-month period. A Covered Swap Entity must calculate the Phase-In Trigger Amount only for business days, must count the average daily aggregate notional amount of Covered Swaps and foreign exchange forwards and swaps between the entity and an affiliate only one time, and must not count a Covered Swap that is exempt under the Interim Margin Exemptions from the margin requirements in the Final Rules.

- September 1, 2016, with respect to initial margin and variation margin where both (1) the Covered Swap Entity combined with all its affiliates and (2) the counterparty combined with all its affiliates have a Phase-In Trigger Amount for March, April, and May 2016 that exceeds \$3 trillion;
- March 1, 2017, with respect to variation margin for any other Covered Swap Entity with respect to Covered Swaps entered into with any other counterparty;
- September 1, 2017, with respect to initial margin where both (1) the Covered Swap Entity combined with all its affiliates and (2) the counterparty combined with all its affiliates have a Phase-In Trigger Amount for March, April, and May 2017 that exceeds \$2.25 trillion;
- September 1, 2018, with respect to initial margin where both (1) the Covered Swap Entity combined with all its affiliates and (2) the counterparty



combined with all its affiliates have a Phase-In Trigger Amount for March, April, and May 2018 that exceeds \$1.5 trillion;

- September 1, 2019, with respect to initial margin where both (1) the Covered Swap Entity combined with all its affiliates and (2) the counterparty combined with all its affiliates have a Phase-In Trigger Amount for March, April, and May 2019 that exceeds \$0.75 trillion; and
- September 1, 2020, with respect to initial margin for any other Covered Swap Entity with respect to Covered Swaps entered into with any counterparty.

Once a Covered Swap Entity and its counterparty become subject to compliance with the margin requirements based on the foregoing timeline, both the Covered Swap Entity and its counterparty will remain subject to the margin requirements of the Final Rules regardless of subsequent decrease in derivatives activities.

INTERIM MARGIN EXEMPTIONS

The Agencies have also issued the Interim Margin Exemptions to exempt, from the margin requirements of the Final Rules, those swaps transactions in which a counterparty qualifies for an exemption or exception from clearing under the Dodd-Frank Act, including commercial end users and certain financial institutions with \$10 billion or less in total assets.

Specifically, the Interim Margin Exemptions, which add a new section to the Final Rules, adopt the exemptions and exceptions as required under the Terrorism Risk Insurance Program Reauthorization Act of 2015 ("TRIPRA"), which provides that the initial and variation margin requirements of the Final Rules do not apply to the Covered Swaps with three types of counterparties, as discussed below. It is important to note that the exemptions granted under TRIPRA are transaction-based, not counterparty-based; for instance, a nonfinancial end user that enters into a swap with a Covered Swap Entity not for hedging purposes may be unable to benefit from this exemption, and the Covered Swap Entity will need to treat that swap as it would otherwise treat any swap with an Other Counterparty under the Final Rules.

Nonfinancial Entities

TRIPRA provides that the margin requirements do not apply to a Covered Swap in which a counterparty qualifies for an exception under section 2(h)(7)(A) of the CEA or section 3C(g)(1) of the Exchange Act.²⁵ Section 2(h)(7)(A) and

¹⁵ 7 U.S.C. 2(h)(7)(A); 15 U.S.C. 78c-3(g)(1).



section 3C(g)(1) except from clearing swaps where one of the counterparties is not a financial entity, is using the swap to hedge or mitigate commercial risk, and notifies the CFTC or SEC how it generally meets its financial obligations associated with entering into Covered Swaps.

- A counterparty that is not a "financial entity" (referred to as nonfinancial end users or commercial end users) that is using swaps to hedge or mitigate commercial risk generally would qualify for an exception from clearing under section 2(h)(7)(A) or section 3C(g)(1) and thus from the margin requirements of the Final Rules.
- Small banks, savings associations, Farm Credit System institutions, and credit unions with total assets of \$10 billion or less have been exempted by the CFTC from the CEA's definition of "financial entity." Thus, such small financial institutions that are using non-cleared swaps to hedge or mitigate commercial risk would qualify for the exemption from the margin requirements of the Final Rules.²⁶
- Certain captive finance companies are exempt from the definition of "financial entity" under the CEA.²⁷ Thus, when such entities use swaps to hedge or mitigate commercial risk, they are exempt from clearing under section 2(h)(7)(A) of the CEA and thus exempt from the margin requirements of the Final Rules.

Treasury Affiliates Acting as Agent

TRIPRA provides that the margin requirements do not apply to a Covered Swap in which a counterparty satisfies the criteria for an exception from clearing in section 2(h)(7)(D) of the CEA or section 3C(g)(4) of the Exchange Act. These sections provide that if a person qualifies for an exception from clearing, then an affiliate of that person also qualifies for an exception from clearing as long as the

The SEC has proposed to exempt security-based swaps used by small depository institutions, small Farm Credit System institutions, and small credit unions with total assets of \$10 billion or less from clearing. See 75 FR 79992 (December 21, 2010). If the SEC were to implement an exclusion for such entities from clearing, non-cleared security-based swaps with those entities would qualify for the exemption from the margin requirements of the Final Rules (provided they met the other requirements for the clearing exemption).

Section 2(h)(7)(C) of the CEA provides that the definition of "financial entity" does not include an entity whose primary business is providing financing and uses derivatives for the purposes of hedging underlying commercial risks relating to interest rate and foreign exchange exposures, 90% or more of which arise from financing that facilitates the purchase or lease of products, 90% or more of which are manufactured by the parent company or another subsidiary of the parent company.



affiliate is acting on behalf of the qualifying person as an agent and uses the swap to hedge or mitigate the commercial risk of the qualifying person or other affiliate of the qualifying person that is not a financial entity. Such an affiliate acting as agent that meets the requirements for a clearing exemption is also exempt from the margin requirements of the Final Rules.

Certain Cooperative Entities

TRIPRA provides that the margin requirements do not apply to a Covered Swap in which a counterparty qualifies for an exemption issued under section 4(c)(1) of the CEA from the clearing requirement of the CEA that would otherwise apply to cooperative entities. The CFTC adopted a regulation that allows cooperatives that are financial entities to elect an exemption from mandatory clearing of swaps that: (1) they enter into in connection with originating loans for their members or (2) hedge or mitigate commercial risk related to loans to members or swaps with their members which are not financial entities or are exempt from the definition of a financial entity. Thus, the swaps of cooperatives that would qualify for an exemption from clearing would also qualify for an exemption from the margin requirements of the Final Rules.

CAPITAL REQUIREMENTS

With respect to capital requirements, the Final Rules only require a Covered Swap Entity to comply with the risk-based and leverage capital requirements already applicable to it as part of its prudential regulatory regime, and do not impose any additional capital requirements under the Agencies' Title VII rulemaking authority.

* * *

Please feel free to contact us with any questions.



Attachment 1

I. List of Financial End Users

Under the Final Rules, a counterparty that is not a Swap Entity is a financial end user if it is:

- a bank holding company or an affiliate thereof, a savings and loan holding company, a U.S. intermediate holding company established or designated for purposes of compliance with the FRB's Regulation YY, or a nonbank financial institution supervised by the FRB under Title I of the Dodd-Frank Act;
- a depository institution, a foreign bank, a federal credit union or state credit union as defined in section 2 of the Federal Credit Union Act, an institution that functions solely in a trust of fiduciary capacity as described in section 2(c)(2)(D) of the Bank Holding Company Act, an industrial loan company, an industrial bank, or other similar institution described in section 2(c)(2)(H) of the Bank Holding Company Act;
- an entity that is state-licensed or registered as a credit or lending entity, including a finance company, money lender, installment lender, consumer lender or lending company, mortgage lender, broker, or bank, motor vehicle title pledge lender, payday or deferred deposit lender, premium finance company, commercial finance or lending company, or commercial mortgage company, except entities registered or licensed solely on account of financing the entity's direct sales of goods or services to customers;
- a money services business, including a check casher, money transmitter, currency dealer or exchange, or money order or traveler's check issuer;
- a regulated entity as defined in section 1303(20) of the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 and any entity for which FHFA or its successor is the primary federal regulator;
- any institution chartered and regulated by the Farm Credit Administration in accordance with the Farm Credit Act of 1971;
- a securities holding company, a broker or dealer, an investment adviser as defined in section 202(a) of the Investment Advisers Act of 1940 ("Investment Advisers Act"), an investment company registered with the SEC under the Investment Company Act of 1940 (the "Investment Company Act"), or a company that has elected to be regulated as a business development company pursuant to section 54(a) of the Investment Company Act;



- a private fund as defined in section 202(a) of the Investment Advisers Act, an entity that would be an investment company under section 3 of the Investment Company Act but for section 3(c)(5)(C), or an entity that is deemed not to be an investment company under section 3 of the Investment Company Act pursuant to Rule 3a-7;
- a commodity pool, a commodity pool operator, or a commodity trading advisor as defined, respectively, in section 1a(10), 1a(11) and 1a(12) of the CEA; a floor broker, a floor trader, an introducing broker as defined, respectively, in section 1a(22), 1a(23) and 1a(31) of the CEA; or a futures commission merchant as defined in section 1a(28) of the CEA;
- an employee benefit plan as defined in paragraphs (3) and (32) of section 3 of the Employee Retirement Income and Security Act of 1974;
- an entity that is organized as an insurance company, primarily engaged in
 writing insurance or reinsuring risks underwritten by insurance companies,
 or is subject to supervision as such by a state insurance regulator or foreign
 insurance regulator;
- an entity, person, or arrangement that is, or holds itself out as being, an
 entity, person, or arrangement that raises money from investors, accepts
 money from clients, or uses its own money primarily for the purposes of
 investing or trading or facilitating the investing or trading in loans, securities,
 swaps, funds, or other assets for resale or other disposition or otherwise
 trading in loans, securities, swaps, funds or other assets; or
- an entity that would be a financial end user described in the Final Rules, if it were organized under the laws of the United States or any state thereof.

II. Entities Excluded from Financial End User Definition

The Final Rules exclude the following entities from the definition of "financial end user":

- a sovereign entity;
- a multilateral development bank;
- the Bank for International Settlements;
- an entity that is exempt from the definition of financial entity pursuant to section 2(h)(7)(C)(iii) of the CEA and implementing regulations; and
- an affiliate that qualifies for the exemption from clearing pursuant to section 2(h)(7)(D) of the CEA or section 3C(g)(4) of the Securities Exchange Act and implementing regulations.



Attachment 2 <u>Margin Values for Eligible Noncash Margin Collateral</u>

Asset Class ²⁸	Discount (%)
Eligible government and related (<i>e.g.</i> , central bank, multilateral development bank, GSE securities as defined in the Final Rules) debt: residual maturity less than one year	0.5
Eligible government and related (<i>e.g.</i> , central bank, multilateral development bank, GSE securities as defined in the Final Rules) debt: residual maturity between one and five years	2.0
Eligible government and related (<i>e.g.</i> , central bank, multilateral development bank, GSE securities as defined in the Final Rules) debt: residual maturity greater than five years	4.0
Eligible GSE debt securities: residual maturity less than one year	1.0
Eligible GSE debt securities: residual maturity between one and five years	4.0
Eligible GSE debt securities: residual maturity greater than five years	8.0
Other eligible publicly traded debt: residual maturity less than one year	1.0
Other eligible publicly traded debt: residual maturity between one and five years	4.0
Other eligible publicly traded debt: residual maturity greater than five years	8.0
Equities included in S&P 500 or related index	15.0
Equities included in S&P 1500 Composite or related index but not S&P 500 or related index	25.0
Gold	15.0

The discount to be applied to an eligible investment fund is the weighted average discount on all assets within the eligible investment fund at the end of the prior month. The weights to be applied in the weighted average should be calculated as a fraction of the fund's total market value that is invested in each asset with a given discount amount. As an example, an eligible investment fund that is comprised solely of \$100 of 91-day Treasury bills and \$100 of 3-year U.S. Treasury bonds would receive a discount of (100/200)*0.5+(100/200)*2.0=(0.5)*0.5+(0.5)*2.0=1.25 percent.



The value of initial or variation margin collateral for any collateral asset class (calculated using this Attachment 2) will be calculated as:

(Market value of the eligible collateral in any asset class) x (1 - H), where "H" is the applicable haircut percentage in the above table.



Attachment 3
Standardized Minimum Gross Initial Margin Requirements for Covered Swaps

Asset Class	Gross Initial Margin (% of Notional Exposure)
Credit: 0-2 year duration	2
Credit: 2-5 year duration	5
Credit: 5+ year duration	10
Commodity	15
Equity	15
Foreign Exchange/Currency	6
Cross-Currency Swaps: 0-2 year duration	1
Cross-Currency Swaps: 2-5 year duration	2
Cross-Currency Swaps: 5+ year duration	4
Interest Rate: 0-2 year duration	1
Interest Rate: 2-5 year duration	2
Interest Rate: 5+ year duration	4
Other	15



Attachment 4

Using an Internal Model to Calculate Initial Margin

Criteria for Using Internal Model

The Final Rules permit a Covered Swap Entity to use an internal model to calculate initial margin for a Covered Swap or netting set thereof covered by an EMNA, subject to the following criteria:

- The internal model must calculate an amount of initial margin that is equal to the potential future exposure of the Covered Swap or netting portfolio thereof covered by an EMNA, consistent with a one-tailed 99% confidence interval for an increase in the value of the Covered Swap or netting portfolio due to an instantaneous price shock that is equivalent to a movement in all material underlying risk factors (including prices, rates and spreads), over a holding period equal to the shorter of 10 business days²⁹ or the maturity of the Covered Swap or netting portfolio (with the calculation performed directly over a 10-day close-out period, with no option to indirectly compute a calculation over a shorter horizon (e.g., 1 day) and then scaling it to a longer 10-day horizon);
- All data used to calibrate the model must be based on an equally weighted
 historical observation period of at least one year and not more than five
 years³⁰ and must incorporate a period of significant financial stress for each
 broad asset class that is appropriate to the Covered Swaps to which the
 model is applied;³¹

The Agencies note that they chose a 10-day minimum close-out period, rather than the typical three to five business days used by CCPs, because non-cleared swaps are expected to be less liquid than cleared swaps. They also note that the 10-day period is consistent with counterparty credit risk capital requirements for banks.

The purpose of this requirement is to balance the trade-off between shorter and longer data spans, since longer spans are less sensitive to evolving market conditions and may place insufficient emphasis on periods of financial stress, while shorter spans may overreact to short-term, idiosyncratic spikes in volatility, yielding procyclical margin requirements.

The Agencies note that the stress calibration employed for each asset class must be appropriate to the specific asset class in question, and that a common stress period calibration would be appropriate for multiple (or all) asset classes only if it is appropriate for each specific underlying asset class.



- The model must use risk factors sufficient to measure all material price risks inherent in the transactions for which initial margin is being calculated,³² including (without limitation) foreign exchange or interest rate risk, credit risk, equity risk, and commodity risk, as appropriate (the "Specified Risk Categories"), plus certain additional risks for significant currencies and markets:³³
- For option positions or positions with embedded optionality, the model must include all material risks arising from the nonlinear price characteristics of such positions and the sensitivity of the market value of such positions to changes in the volatility of the underlying rates, prices and other material risk factors;³⁴
- The model must use the sum of the initial margins calculated for each Specified Risk Category to determine the aggregate initial margin due from the counterparty;
- The model may not incorporate any proxy or approximation used to capture the risks of the Covered Swaps without the prior approval of its prudential regulator; and
- The level of sophistication of the model must be commensurate with the complexity of the Covered Swaps to which it is applied.³⁵

Exception for Cross-Currency Swaps

For non-cleared cross-currency swaps, ³⁶ the model need not recognize any risks or risk factors associated with the fixed, physically settled foreign exchange

A Covered Swap Entity may not omit from the calculation of its initial margin any risk factor that it uses in its internal model without the prior approval of its prudential regulator.

For material exposures in significant currencies and markets, modeling techniques must capture spread and basis risk and must incorporate a sufficient number of segments of the yield curve to capture differences in volatility and imperfect correlation of rates along the yield curve.

For instance, the initial margin calculation for a swap that is an option on an underlying asset, such as a credit default swap, must capture material non-linearities arising from changes in the price of the underlying asset or changes in its volatility.

The model may make use of any of the generally accepted approaches for modeling the risk of a single instrument or portfolio of instruments.

The Final Rules define a "cross-currency swap" as a swap in which one party exchanges with another party principal and interest rate payments in one currency for principal and interest rate payments in another currency, and the exchange of principal occurs on the date the swap is entered into, with a reversal of the exchange of principal at a later date fixed at the date the swap is entered into.



transactions associated with the exchange of principal embedded in the swap, but it must recognize all material risks and risk factors associated with all other payments and cash flows over the life of the swap.

The initial margin requirements for cross-currency swaps do not apply to the portion of the swap that is the fixed exchange of principal payments. This treatment of cross-currency swaps is consistent with the treatment recommended in the 2013 International Framework and with the treatment of foreign exchange forwards and swaps.

Offsetting Exposures Using Internal Model—No Offset of Initial Margins

To the extent that Covered Swaps are executed pursuant to the netting arrangement under an EMNA between a Covered Swap Entity and its counterparty that is a Swap Entity or financial end user, the Final Rules permit an internal model's initial margin calculation to be performed on an aggregate basis with respect to all such transactions governed by the same EMNA. While the Final Rules generally require that all Covered Swaps subject to an EMNA be included in the aggregate netting portfolio (for margin calculation purposes) where an EMNA covers any Covered Swaps entered into on or after the applicable compliance date, since the Final Rules permit the establishment of separate netting sets under a single EMNA, a Covered Swap Entity may satisfy its margin requirements under the Final Rules by using an internal model that calculates initial margin (on an aggregate basis) only for those Covered Swaps entered into on or after such compliance date (where all such Covered Swaps are included in a netting portfolio separate from the pre-compliance date swaps).

The Final Rules permit internal models to reflect offsetting exposures, diversification and other hedging benefits for transactions covered by an EMNA by recognizing empirical correlations within each of the Specified Risk Categories, provided the Covered Swap Entity validates and demonstrates the reasonableness of its process for modeling and measuring hedging benefits. But the Final Rules do not permit internal models to reflect offsetting exposures, diversification or other hedging benefits across Specified Risk Categories.³⁷

If the model does not explicitly reflect offsetting exposures, diversification and hedging benefits between subsets of Covered Swaps within a Specified Risk

The Agencies note that the correlations of exposures across Specified Risk Categories are not stable enough over time to be recognized for margin purposes. The Agencies also declined to adopt certain commenters' suggestion that internal models be permitted to reflect portfolio offsets between Covered Swaps and other products that are not subject to the margin requirements in the Final Rules (*e.g.*, cleared swaps, securities).



Category, the Covered Swap Entity must calculate an amount of initial margin separately for each subset of Covered Swaps for which offsetting exposures, diversification and other hedging benefits are explicitly recognized by the model. The sum of the initial margin amounts calculated for each such subset will be used to determine the aggregate initial margin due from the counterparty for the portfolio of Covered Swaps within the Specified Risk Category.

The model may not permit the calculation of any initial margin collection amount of the Covered Swap Entity to be offset by, or otherwise take into account, any initial margin that may be owed or otherwise payable by the Covered Swap Entity to its counterparty. In other words, the parties may not offset their initial margin posting and collection amounts from each other.

Periodic Review of Internal Model by Covered Swap Entity and Documentation Requirement

In addition to the foregoing requirements, the Final Rules require a Covered Swap Entity that uses an internal model to have a rigorous and well-defined process for reestimating, reevaluating and updating its model to ensure continued applicability and relevance, and requires the Covered Swap Entity to review and, as necessary, revise the data used to calibrate the model at least annually (and more frequently as market conditions warrant), to ensure that the data incorporate a period of significant financial stress appropriate to the transactions to which the model is applied.

The Final Rules require a Covered Swap Entity to maintain a risk control unit that reports directly to senior management and is independent from the business trading units. The risk control unit is required to validate its model prior to implementation and on an ongoing basis, and this validation process must either be independent of the development, implementation and operation of the model or be subject to an independent review of its adequacy and effectiveness. The validation process must also include:

- an evaluation of the conceptual soundness of the model (including supporting developmental evidence);
- an ongoing monitoring process that includes verification of processes and benchmarking by comparing the model's outputs (estimates of initial margin) with relevant alternative internal and external data sources or estimation techniques,³⁸ including benchmarking against observable margin

The Final Rules require that such benchmark(s) address the chosen model's limitations. In addition, the Final Rules provide that, when applicable, the Covered Swap Entity



standards(when applicable) to ensure that the initial margin required is not less than what a central counterparty ("CCP") (specifically, a derivatives clearing organization or clearing agency)³⁹ would require for similarly cleared transactions; and

 an outcomes analysis process that includes back-testing the model and recognizes and compensates for the challenges inherent in such back-testing over periods that do not contain significant financial stress.

If the validation process reveals any material problems with the model, the Final Rules require the Covered Swap Entity to notify its prudential regulator of the problems, describe any remedial actions being taken and adjust the model to ensure an appropriately conservative amount of initial margin is being calculated.

Additionally, the Final Rules require a Covered Swap Entity to review its internal model at least annually in light of developments in financial markets and modeling technologies and enhance the model as appropriate to ensure that it continues to meet the foregoing requirements. Specifically, a Covered Swap Entity must have an internal audit function independent of business-line management and the risk control unit that at least annually (1) assesses the effectiveness of the controls supporting the model's measurement systems (including the activities of the business trading units and risk control unit, compliance with policies and procedures and calculation of initial margin requirements) and (2) reports its findings to the board of directors or a committee thereof.

The Final Rules require a Covered Swap Entity to document all material aspects of its internal model, including the management and valuation of the Covered Swaps to which the model applies, the control, oversight and validation of the model, any review processes and the results of such processes.

Review by Prudential Regulator

Under the Final Rules, the appropriate prudential regulator would review a Covered Swap Entity's internal model for approval upon the request of the

should consider benchmarks that allow for non-normal distributions (such as historical and Monte Carlo simulations).

A "derivatives clearing organization" ("DCO") is a CCP for swaps, registered with the CFTC under section 5b of the CEA. A "clearing agency" is a CCP for security-based swaps, registered with the SEC under section 17A(g) of the Exchange Act.



Covered Swap Entity. Models that are reviewed for approval would be analyzed and subjected to certain tests to ensure compliance with the Final Rules. ⁴⁰

If the relevant prudential regulator determines, in its sole discretion, that an internal model no longer complies with the above criteria, it may rescind its approval of the model, in whole or in part, or may impose additional conditions or requirements. In addition, the relevant prudential regulator may, in its sole discretion, require a Covered Swap Entity to collect a greater amount of initial margin than that determined by its internal model if the regulator determines that the additional collateral is appropriate due to the nature, structure or characteristics of the relevant transactions, or is commensurate with the risks associated with the transactions.

Extending an Internal Model to Additional Products and Other Material Changes to Model

For internal models that have been approved by the relevant prudential regulator, the Final Rules require a Covered Swap Entity to notify the regulator in writing 60 days prior to:

- extending the use of the model to an additional product type;
- making any change to the model that would result in a material change in the Covered Swap Entity's assessment of initial margin requirements; or
- making any material change to modeling assumptions used by the model.

A Covered Swap Entity is required to adequately document internal authorization procedures, including escalation procedures, that require review and approval of any change to the initial margin calculation under the model, demonstrable analysis that any basis for any such change is consistent with the requirements of the Final Rules and independent review of such analysis and approval.

The Agencies note that, since they expect specific internal models will vary across Covered Swap Entities (based on their "highly specialized business lines"), the specific analyses that will be undertaken in the context of any single review will be tailored to the intended uses of the model. The Agencies further note that they expect the nature and scope of these reviews to be similar to those conducted in the context of other model review processes (such as for regulatory capital purposes).



Attachment 5

Standardized Initial Margin Calculation

Under the standardized calculation, the initial margin amount for multiple Covered Swaps subject to an EMNA is calculated using the formula:

Initial Margin = (0.4 x Gross Initial Margin) + (0.6 x NGR x Gross Initial Margin), where:

- "Gross Initial Margin" is the sum of (1) the notional value of each Covered Swap multiplied by (2) the appropriate (gross) initial margin requirement percentage (from the look-up table) for each non-cleared swap subject to the EMNA; and
- "NGR" (the "net-to-gross ratio") is the ratio of the net current replacement cost to the gross current replacement cost, where the "gross current replacement cost" is the sum of the replacement costs (if positive) for each transaction subject to the EMNA, and the "net current replacement cost" is the total replacement cost for all such transactions. ⁴¹

With respect to cross-currency swaps, the Final Rules set the gross initial margin rates for the standardized approach equal to those for interest rate swaps, recognizing that cross-currency swaps are subject to risks arising from fluctuations in interest rates, without recognizing any risks associated with the fixed exchange of principal (since principal is typically not exchanged on interest rate swaps).

As an example of the NGR, the Agencies note that a portfolio with two non-cleared swaps under an EMNA in which the mark-to-market value of the first is \$10 (in favor of the Covered Swap Entity), while that of the second is -\$5 (in favor of its counterparty) would yield a net current replacement cost of \$5, a gross current replacement cost of \$10 and an NGR of 0.5 (*i.e.*, 5 divided by 10).

As an example of the standardized initial margin calculation, the Agencies note that if both of these swaps have a notional value of \$100 and the swap with the

Since at the time a non-cleared swap is entered into, its net and gross current replacement costs are often both zero (thereby precluding the NGR calculation), in cases where a new swap is added to an existing portfolio that is being executed under an existing EMNA, the NGR may be calculated with respect to the existing portfolio of swaps. Where an entirely new swap portfolio is being established, the initial value of the NGR should be set to 1.0 and recalculated only after the first day's mark-to-market valuation has been recorded for the portfolio.



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mark-to-market value of \$10 is a sold 5-year credit default swap, while the swap with the -\$5 value is an equity swap, the standardized initial margin requirement would be:

 $[0.4 \times (100 \times 0.05 + 100 \times 0.15) + 0.6 \times 0.5 \times (100 \times 0.05 + 100 \times 0.15)] = 8 + 6 = 14.$