

## U.S. Banking Agencies Clarify Capital Treatment of Cleared Derivatives with Settled-to-Market Variation Margin

August 21, 2017

Recently, certain derivatives clearinghouses, in particular the Chicago Mercantile Exchange and LCH.Clearnet Limited, have changed their rulebooks to treat daily payments of mark-to-market variation margin as settlement payments of the derivatives transactions rather than pledges or transfers of collateral. In response to this trend and industry questions about its effect on regulatory capital requirements, on August 14, 2017 the U.S. banking agencies (the Federal Reserve Board, OCC and FDIC) released interagency guidance clarifying that cleared derivative contracts and netting sets of cleared derivatives contracts for which variation margin represents true settlement payments may, for purposes of calculating the trade exposure amount to central counterparties, be treated as having a remaining maturity equal to the time between variation margin payments, subject to several important conditions.

This guidance is based on an existing provision of the capital rules for calculating the exposure amount of OTC derivatives contracts using the current exposure method. This provision allows the potential future exposure of a derivative contract or netting set of derivative contracts which are structured so that on specified dates any outstanding exposure is settled and the terms are reset so that the fair value of the contract is zero to be based on a remaining maturity of the time to the next reset date instead of the time to maturity of the contract itself. As the guidance itself states, it "is based on the application of the regulatory capital rules to the facts and circumstances presented. [It] does not represent new rules or regulations."<sup>1</sup> The guidance by its terms only applies to cleared derivative contracts and netting sets of cleared derivative contracts.

### Collateralized-to-Market vs. Settled-to-Market Derivatives<sup>2</sup>

A party to a cleared derivative is required to transfer to the clearinghouse two forms of "margin" to mitigate the credit risk the party poses to the clearinghouse.<sup>3</sup> Variation margin is a (typically daily) payment of cash or very liquid securities to reflect the change in fair value of the derivative since the last variation margin payment. By collecting variation margin, the clearinghouse limits its exposure, in the ordinary course while its counterparty is performing under the contract, to the change in fair value between any two variation margin payments, rather than allowing the exposure to build up during the entire time the derivative is outstanding. Initial margin, provided by a party to a cleared swap to the clearinghouse at inception of the trade, is an additional buffer amount intended to protect the clearinghouse from the change in fair value of the derivative during a time when the counterparty is in default and is not posting variation margin.

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<sup>1</sup> See Office of the Comptroller of the Currency, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, *Regulatory Capital Treatment of Certain Centrally Cleared Derivative Contracts Under Regulatory Capital Rules* (August 14, 2017).

<sup>2</sup> In this memorandum, we use the term "derivative" to refer to a derivative contract or a netting set of derivative contracts, as applicable.

<sup>3</sup> Counterparties to derivatives may exchange the same two forms of margin. Because the guidance by its terms only applies to cleared derivatives, in this memorandum we focus on margin in the context of derivatives cleared through central counterparties.

The guidance focuses on the legal and accounting distinctions between two contractual approaches for characterizing variation margin transfers – the traditional collateralized-to-market (“**CTM**”) approach and the more recent settled-to-market (“**STM**”) approach. Under the CTM approach, variation margin is considered collateral. The collateral is either pledged or transferred to the party collecting the margin, and that party is obligated to return it or equivalent collateral when the derivative matures or is terminated, as is typical for collateral, unless there is an early termination and close-out upon a counterparty default, in which case the party can liquidate the collateral and net or set off the value of the collateral against the amount of its exposure under the derivative. Under the STM approach, the transfer of variation margin is considered a settlement of the outstanding exposure of the derivative, with title to the variation margin transferring to the receiving party, which has no obligation to return it or equivalent collateral. As a result, because any outstanding exposure under the derivative has been settled by the payment of variation margin, the mark-to-market value of the derivative contract is now zero and any new exposure that arises by the next day will be fully settled by the next day’s variation margin payment (assuming daily margin calls and payments).

## Calculating Regulatory Capital for Cleared Derivatives

Under the U.S. Basel III capital rules, the amount of capital that a banking organization must hold against a derivative cleared through a central counterparty (CCP) is determined by the calculation of risk-weighted assets (RWAs) under the provisions for cleared transactions.<sup>4</sup> For a banking organization that is a clearing member, the amount of cleared derivative RWAs is a function of (1) its trade exposure amount to the CCP and (2) any contributions it has made to the default fund of the CCP.<sup>5</sup> The trade exposure amount is, in turn, the aggregate of:

- the exposure amount for the cleared derivative, calculated under the provisions for calculating the exposure amount of OTC derivatives, and
- the fair value of the collateral posted by the clearing member and held by the CCP in a manner that is not bankruptcy remote.<sup>6</sup>

For a standardized approach banking organization, the exposure amount of an OTC derivative is generally calculated using the current exposure method under Section 217.34 of Regulation Q.<sup>7</sup> For an advanced approaches banking organization, the exposure amount of an OTC derivative may be calculated using either the current exposure method or, with supervisory approval, the internal models method, in each case under Section 217.132 of Regulation Q.<sup>8</sup> Once the trade exposure amount has

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<sup>4</sup> See, e.g., 12 C.F.R. §217.35 (standardized approach) (Federal Reserve Board rules), 12 C.F.R. §217.133 (advanced approaches) (Federal Reserve Board rules). For the sake of simplicity, all specific citations to the U.S. Basel III capital rules in this memorandum will be to the Federal Reserve Board’s rules in Regulation Q, which apply to bank holding companies with total consolidated assets of \$1 billion or more, covered savings and loan holding companies with total consolidated assets of \$1 billion or more, state member banks, and (except for subpart E of Regulation Q) the U.S. intermediate holding companies of foreign banking organizations established pursuant to Regulation YY.

<sup>5</sup> See 12 C.F.R. §217.35(a)(2) (standardized approach), 12 C.F.R. §217.133(a)(2) (advanced approaches). For the sake of simplicity, in this memorandum we refer only to the calculation of cleared derivative RWAs for banking organizations that are clearing members rather than clearing member clients.

<sup>6</sup> See 12 C.F.R. §217.35(c)(2)(i) (standardized approach), 12 C.F.R. §217.133(c)(2)(i) (advanced approaches).

<sup>7</sup> See 12 C.F.R. §217.34(a)(1) (single OTC derivative contract), 12 C.F.R. §217.34(a)(2) (OTC derivative contracts subject to a qualified master netting agreement).

<sup>8</sup> See 12 C.F.R. §217.132(c)(1) (single OTC derivative contract), 12 C.F.R. §217.132(c)(2) (OTC derivative contracts subject to a qualified master netting agreement).

been determined, to calculate the associated RWAs a banking organization must apply a risk weight of 2 percent if the CCP is a Qualified Central Counterparty (QCCP) or, if the CCP is not a QCCP, the applicable risk weight under the provisions governing general risk weights for counterparty credit risk.<sup>9</sup>

If a banking organization uses the current exposure method to calculate its exposure amounts for cleared derivatives, it must calculate its current credit exposure (which is the fair value of the derivative if greater than zero) as well as its potential future exposure (PFE), subject to netting calculations in the case of multiple derivative contracts subject to a qualifying master netting agreement.<sup>10</sup> One step in the calculation of PFE requires multiplying the derivative’s notional principal amount by the applicable conversion factor in the following table, which varies by type of derivative and its remaining maturity:<sup>11</sup>

Conversion Factor Matrix for Derivative Contracts							
Remaining maturity	Interest rate	Foreign exchange rate and gold	Credit (investment grade reference asset)	Credit (non-investment-grade reference asset)	Equity	Precious metals (except gold)	Other
One year or less	0.00	0.01	0.05	0.10	0.06	0.07	0.10
Greater than one year and less than or equal to five years	0.005	0.05	0.05	0.10	0.08	0.07	0.12
Greater than five years	0.015	0.075	0.05	0.10	0.10	0.08	0.15

Footnote 2 to the table (“**Footnote 2**”) provides that, for a derivative contract “that is structured such that on specified dates any outstanding exposure is settled and the terms are reset so that the fair value of the contract is zero, the remaining maturity equals the time until the next reset date,” subject to a floor on the resulting conversion factor for interest rate derivatives of 0.005.<sup>12</sup> This treatment reduces the PFE amount to the extent that a shorter remaining maturity until the next reset date results in a lower conversion factor.

<sup>9</sup> See 12 C.F.R. §217.35(c)(3) (standardized approach), 12 C.F.R. §217.133(c)(3) (advanced approaches). Under certain circumstances, the advanced approaches rules permit a banking organization to apply a zero percent risk weight. 12 C.F.R. §217.133(c)(3)(iii).

<sup>10</sup> See 12 C.F.R. §§217.34(a)(1) and (2) (standardized approach current exposure method for single OTC derivative contracts and OTC derivative contracts subject to a qualified master netting agreement), 12 C.F.R. §§217.132(c)(5) and (6) (advanced approaches current exposure method for single OTC derivative contracts and OTC derivative contracts subject to qualifying master netting agreements).

<sup>11</sup> See 12 C.F.R. §217.34, Table 1 (standardized approach), 12 C.F.R. §217.132, Table 2 (advanced approaches).

<sup>12</sup> 12 C.F.R. §217.34, Table 1, footnote 2 (standardized approach), 12 C.F.R. §217.132, Table 2 (advanced approaches). No derivative can achieve a conversion factor of less than 0.005 because, other than the interest rate swap category, no other category has a conversion factor of less than 0.01.

## The Guidance

The guidance clarifies that a banking organization may treat a cleared derivative for which variation margin is a settlement payment as meeting the requirements of Footnote 2. As a result, in the case of daily variation margin payments, the remaining maturity would be the next day and thus would fall into the category of one year or less, subject to the floor for interest rate derivatives. In order to apply this treatment, the banking organization must conduct an “accounting and legal analysis” to determine that:

- (1) the variation margin payment on the derivative settles any outstanding exposure on the contract, and
- (2) the terms of the contract reset and accordingly its fair value resets to zero upon each variation margin payment.

According to the guidance, in conducting the legal analysis, the banking organization should evaluate whether:

- the transferor of the variation margin has relinquished all legal claims to the variation margin, and
- the payment of variation margin will constitute settlement of the derivative under
  - the CCP’s rulebook,<sup>13</sup>
  - any other applicable agreements governing the derivative contract, and
  - any other applicable law.

In considering whether the payment of variation margin constitutes the settlement of any outstanding exposure, the guidance specifically notes that a settlement would generally involve, among other factors:

- a clear and unequivocal transfer of ownership of the variation margin from the transferor to the transferee,
- the transferee taking possession of the variation margin, and
- the termination of any claim of the transferor to the variation margin, including any security interest in the margin. According to the guidance, any right of the transferor to repurchase or similarly recover the variation margin payment from the transferee would generally be inconsistent with treating the derivative as having been settled for purposes of the capital rules.

The guidance does not specifically address the scope of the accounting analysis that a banking organization must conduct to determine whether the STM treatment of variation margin meets the above requirements. Presumably the analysis would, among other things, consider whether U.S. GAAP would derecognize any assets transferred as a variation margin settlement payment from the transferor’s balance sheet. We are not accountants, however, and thus defer to the expertise of accountants and accounting firms in addressing this issue.

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<sup>13</sup> If a CCP’s rulebook requires an institution to satisfy additional obligations, such as payment of expenses and fees, in order to recognize payment of variation margin as constituting settlement under the rulebook, the guidance advises that a banking organization’s analysis should take all such requirements into account.

### Effect of the Guidance

As noted above, the guidance has the effect of decreasing the PFE of certain cleared derivatives that meet its requirements. Two examples for a standardized approach banking organization may be helpful in illustrating this point.

First, we consider a cleared interest rate derivative contract with a remaining contractual maturity of seven years and a notional principal amount of \$1 billion. If the CCP uses a CTM approach for variation margin, such that Footnote 2 would not apply, the remaining maturity will be seven years, the conversion factor will be 1.5%, and the PFE will be \$15 million. If, however, the CCP uses the STM approach for variation margin with daily margining and the operational requirements of the guidance are met, the remaining maturity will be treated as one day (and thus one year or less) under Footnote 2, resulting in a conversion factor of 0.5% due to the floor on the interest rate conversion factor in Footnote 2, and a PFE of \$5 million.

Assuming a current credit exposure of zero, leaving aside the impact of any other collateral having been posted to the CCP and held by the CCP in a manner that is not bankruptcy remote, and assuming that the CCP is a QCCP<sup>14</sup> and thus qualifies for a risk weight of 2%, a banking organization managing itself to a total risk-based capital ratio of 13% would see a decrease of 67%, from \$39,000 to \$13,000, in its regulatory capital requirement in respect of this cleared derivative by applying the STM approach.

	Interest rate contract CTM Approach	Interest rate contract STM Approach
<b>Notional principal amount</b>	\$1 billion	\$1 billion
<b>Remaining maturity</b>	7 years	1 day
<b>Applicable conversion factor</b>	.015	0.005
<b>PFE</b>	\$15 million	\$5 million
<b>RWA<sup>15</sup></b>	\$300,000	\$100,000
<b>Related regulatory capital requirement<sup>16</sup></b>	\$39,000	\$13,000

Second, we consider a cleared foreign exchange swap with a remaining contractual maturity of seven years and a notional principal amount of \$1 billion. If the CCP uses a CTM approach for variation margin, such that Footnote 2 would not apply, the remaining maturity will be seven years, the conversion factor will be 7.5% and the PFE will be \$75 million. If, however, the CCP uses the STM approach for variation margin with daily margining and the operational requirements of the guidance are met, the remaining maturity will be treated as one day (and thus one year or less) under Footnote 2, resulting in a conversion factor of 1% and a PFE amount of \$10 million.

Assuming a current credit exposure of zero, leaving aside the impact of any other collateral having been posted to the CCP and held by the CCP in a manner that is not bankruptcy remote, and assuming that the CCP is a QCCP and thus qualifies for a risk weight of 2%, a banking organization managing itself to a total risk-based capital ratio of 13% would see a decrease of 87%, from \$195,000 to \$26,000, in its regulatory capital requirement in respect of this cleared derivative by applying the STM approach.

<sup>14</sup> Both the Chicago Mercantile Exchange and LCH.Clearnet Limited are QCCPs.

<sup>15</sup> This example assumes that the CCP is a QCCP and thus qualifies for a risk weight of 2%.

<sup>16</sup> The example assumes that a banking organization is managing itself to a total risk-based capital ratio of 13%.

	FX swap CTM Approach	FX swap STM Approach
Notional principal amount	\$1 billion	\$1 billion
Remaining maturity	7 years	1 day
Applicable conversion factor	.075	0.01
PFE	\$75 million	\$10 million
RWA <sup>17</sup>	\$1.5 million	\$200,000
Related regulatory capital requirement <sup>18</sup>	\$195,000	\$26,000

For certain types of derivatives, such as credit derivatives, for which the conversion factor does not change based on remaining maturity, the guidance would not have any impact on PFE, although it would have the effect of reducing the amount of collateral posted to a CCP that is not held in a bankruptcy remote manner to the extent that the collateral consisted of variation margin.

### Scope of Guidance

The guidance is consistent with the approach taken by the Basel Committee on Banking Supervision ("**Basel Committee**") for OTC derivatives, as set forth in the Basel Committee and Board of the International Organization of Securities Commissions ("IOSCO")'s September 2013 report on margin requirements and their March 2015 revised report on margin requirements. In both cases, the Basel Committee specifically noted: "In the case of variation margin, the [Basel Committee] and IOSCO recognize that the regular and timely exchange of variation margin **represents the settlement of the running profit/loss of a derivative** and has no net liquidity costs given that variation margin represents a transfer of resources from one party to another".<sup>19</sup>

As already noted above, however, notwithstanding that the guidance is based on the existing U.S. Basel III capital rules that apply to both OTC derivatives and cleared derivatives, by its terms the guidance applies only to cleared derivatives.

<sup>17</sup> This example assumes that the CCP is a QCCP and thus qualifies for a risk weight of 2%.

<sup>18</sup> The example assumes that a banking organization is managing itself to a total risk-based capital ratio of 13%.

<sup>19</sup> See Basel Committee on Banking Supervision, Board of the International Organization of Securities Commissions, *Margin Requirements for Non-centrally Cleared Derivatives*, at 8 (September 2013) (emphasis added); Basel Committee on Banking Supervision, Board of the International Organization of Securities Commissions, *Margin Requirements for Non-centrally Cleared Derivatives*, at 9 (March 2015) (emphasis added).

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