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Re: Standardized Approach for Calculating the Exposure Amount of Derivative Contracts[1]

Ladies and Gentlemen:

We appreciate the opportunity to comment on the notice of proposed rulemaking published by the Board of Governors of the Federal Reserve System (the "**Board**"), the Federal Deposit Insurance Corporation ("**FDIC**") and the Office of the Comptroller of the Currency ("**OCC**") (collectively, the "**Agencies**") to implement the standardized approach for counterparty credit risk in derivative contracts ("**SA-CCR**") and related changes to the regulatory capital framework (the "**Proposal**").[2]

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We support the Agencies' policy objective in SA-CCR of improving risk-sensitivity in the measurement of derivatives counterparty credit risk. We encourage the Agencies to consider comment letters submitted by trade associations and Commercial End Users ("**CEUs**") that raise various policy and

[1] Docket No. R–1629 and RIN 7100–AF22; RIN 3064–AE80; Docket ID OCC–2018–0030, RIN 1557–AE44.
[2] 83 Fed. Reg. 64,660 (Dec. 17, 2018).

technical issues, in particular potential impacts to CEUs' ability to access derivative markets to hedge and mitigate commercial risk.[3] Our comments in this letter are focused on the potential impacts of SA-CCR on CEUs, SA-CCR calibrations for commodity and equity-related counterparty exposures and the role of SA-CCR within the regulatory capital framework.

I. Executive Summary

- **CEU accommodations (II.A)**. The Proposal should be modified to include appropriate accommodations for transactions with CEUs to better align with Congressional and regulatory actions designed to ensure CEU access to derivative markets for purposes of hedging and mitigating commercial risk. In particular, the SA-CCR "alpha factor" should be reduced to 1.0 for all transactions with CEUs and further downward adjustments to the alpha factor should be recognized where a CEU is either investment grade ("**IG**") rated or provides a banking organization with a first-priority lien on assets that would be sufficient to meet any anticipated credit exposure in the event of the CEU's default. In addition, letters of credit supporting CEU transactions should be recognized as collateral in the SA-CCR calculation.

- **Improving risk-sensitivity in commodity derivatives (II.B)**. We support the Agencies' recognition of a single energy asset class within the SA-CCR commodities framework encompassing oil, natural gas and electricity transactions, which is consistent with observed volatility and counterparty activity in these markets. We recommend, however, that the Agencies assign a supervisory factor of approximately 10 percent to this energy asset class, which more accurately reflects risks in energy derivative counterparty relationships, as evidenced in forward markets, than an elevated 40 percent supervisory factor. We also believe that the Agencies should clarify that the notional value of a "basis derivative contract" is the spread between the two underlying factors multiplied by the number of units rather than the gross notional value of one factor in the spread.

- **Improving risk-sensitivity in equity derivatives (II.C)**. SA-CCR should permit banking organizations to fully recognize the credit risk benefits of heavily over-collateralized portfolios, a frequent risk management practice in equity derivative transactions. In addition, we recommend that the Agencies revise the uniform one-size-fits-all equity derivative supervisory factors to incorporate risk-based distinctions in equity counterparty portfolios, following similar approaches in related regulatory standards.

- **Coherence of the regulatory capital framework (II.D)**. We recommend that the Agencies align the mandatory effective date of SA-CCR with the effective dates of related revisions to the capital framework, in particular pending changes to market risk

[3] See the Financial Services Forum comment letter, the International Swaps and Derivatives Association and other trade associations comment letter, the Futures Industry Association Supplemental Letter on behalf of Commodities Members, the Coalition for Derivatives End Users comment letter, as well as other comment letters submitted by CEUs and "real economy" market participants. All letters are dated March 18, 2019.

standards associated with the Fundamental Review of the Trading Book standardized approach ("**FRTB SA**") and standardized counterparty risk-weight changes in the Basel Committee's revised Basel III Accord ("**Revised Basel III**"), both of which have target effective dates of January 1, 2022.[4] Staggered implementation of SA-CCR and Revised Basel III, in particular, would result in significant short-term volatility in risk-based capital requirements, and would limit firms' ability to provide credit to CEUs, which could be avoided by a single, aligned effective date. Delayed adoption of SA-CCR would also provide the Board with adequate time to ensure a coherent integration of SA-CCR with the Board's Comprehensive Capital Analysis and Review ("**CCAR**") stress loss analysis and the Board's open rulemaking to implement a Stress Capital Buffer ("**SCB**").

II. Discussion

A. SA-CCR should include appropriate accommodations for CEU transactions

The Agencies predicted in the Proposal that adoption of SA-CCR would result in increases to counterparty credit risk measurements for transactions with CEUs.[5] We have three concerns with the potential impact of SA-CCR on CEUs.

First, adoption of the Proposal in its current form would effectively undermine CEU exemptions from margin and clearing requirements provided by Congress and the Agencies, which were designed to ensure that CEUs have access to derivatives markets for purposes of hedging and mitigating underlying commercial risk.[6] Instead, the Agencies' regulatory capital framework should work harmoniously with margin and clearing requirements to ensure ongoing CEU access to these markets, with appropriately tailored capital requirements imposed on banking organizations facing CEUs.

Second, there appears to be a significant divergence between SA-CCR CEU counterparty credit risk exposures, on the one hand, and banking organizations' actual underlying counterparty credit risk economic exposures, on the other hand. SA-CCR does not account for whether a counterparty is IG-rated, which many CEUs are, or distinguish among the varying amounts of leverage in a counterparty's capital structure, even though CEUs are generally less levered than many trading counterparties or not levered at all. In addition, SA-CCR does not assign any value to non-margin forms of collateralization, such as first-priority liens or letters of credit, both of which are regularly used by CEUs to collateralize derivative transactions otherwise exempt from regulatory margin and clearing requirements. While SA-CCR improves risk-sensitivity for margined transactions, it should be adapted for margin-exempt transactions to ensure a similar degree of risk-sensitivity across all counterparty relationships.

Third, in the absence of CEU accommodations in SA-CCR, there appears to be a meaningful risk of negative impact to the real economy. A wide range of CEUs—electricity cooperatives, oil and gas

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[4] Basel Committee on Banking Supervision ("**Basel Committee**"), *Minimum capital requirements for market risk*, Introduction (2019); Basel Committee, Revised Basel III (2017), Introduction ¶ 9.

[5] 83 Fed. Reg. at 64,685 ("the exposure amount of unmargined derivative contracts . . . would increase by approximately 90 percent").

[6] Pub. L. 114-1 § 302 (Jan. 12, 2015), which added Securities Exchange Act § 15F(e)(4) and Commodity Exchange Act § 4s(e)(4); 80 Fed. Reg. 74,916 (Nov. 30, 2015) (recognizing CEU exemptions in the Agencies' regulatory margin rules).

companies, municipalities, airlines and agricultural companies, among others—rely on derivatives to hedge or mitigate underlying commercial risk, and the design and calibration of final SA-CCR standards should avoid disruptions to CEUs' ability to efficiently provide goods and services to the real economy.

1. 1.0 alpha factor for all CEU transactions

In response to the Agencies' request for comment on incorporation of the alpha factor within SA-CCR, we recommend that the Agencies recognize a 1.0 alpha factor for all derivative contracts involving CEU counterparties.[7]

The 1.4 alpha factor in the Proposal is rooted in the Agencies' Internal Models Methodology ("**IMM**") as a conservative adjustment to address risks that may be unaccounted for in IMM calculations, such as concentration risk, systemic market risk and wrong-way risk.[8] In turn, the Agencies have proposed to incorporate the same 1.4 alpha factor into SA-CCR "to instill a level of conservatism . . . in order to produce exposure measure outcomes that generally are no lower than those amounts calculated using IMM."[9] The Proposal includes no analysis of the effect of applying a 1.4 alpha factor to CEU transactions.

We believe that application of a 1.0, rather than 1.4, alpha factor to CEU transactions is warranted for three reasons. First, our analysis demonstrates that SA-CCR exposure measurements for CEU transactions would continue to exceed IMM exposure measurements even after application of a 1.0 (or lower) alpha factor. In other words, if the primary rationale for imposing the 1.4 alpha factor in SA-CCR is to ensure conservatism relative to IMM, application of the 1.4 alpha factor to CEU transactions is unnecessary to achieve this objective.

Second, applying a 1.0 alpha factor to CEU transactions would avoid frustrating Congressional and prior Agency regulatory actions designed to ensure uninterrupted CEU access to derivatives markets. Applying a 1.0 alpha factor to CEU transactions would harmonize the Agencies' regulatory capital standards with the Agencies' regulatory margin and clearing frameworks.

Third, CEUs are typically less-levered or unlevered entities engaged in providing goods and services to the real economy, thereby posing lower counterparty credit risk than more highly levered counterparty relationships where application of a 1.4 alpha factor may potentially guard against unforeseen risks.

2. The alpha factor should be further reduced to 0.65 for CEU transactions involving IG counterparties or Non-IG counterparties providing first-priority liens

While application of a 1.0 alpha factor to all CEU transactions would substantially improve accuracy in counterparty credit risk measurements and more coherently align SA-CCR with related areas of law and regulation, further adjustments to the alpha factor for certain CEU transactions would strengthen risk sensitivity. In particular, an alpha factor below 1.0 should apply to CEU transactions

[7] 83 Fed. Reg. at 64,666 (Question 3).
[8] 83 Fed. Reg. at 64,665 n. 20.
[9] 83 Fed. Reg. at 64,666.

where either (i) the CEU is IG-rated or (ii) if the CEU is Non-IG-rated, the CEU provides a first-priority lien to the banking organization on underlying assets that would be sufficient to meet any anticipated credit exposures in the event of the Non-IG CEU's default. An alpha factor of 0.65 in both cases would improve risk-sensitivity and would mirror the treatment of IG corporate counterparty risk-weights in Revised Basel III, with any potential "double-count" reductions addressed when Revised Basel III is ultimately implemented.[10]

i. IG-rated CEU exposures

A banking organization's risk appetite when facing CEUs in non-margined derivative transactions is informed by the IG status of the CEU counterparty. Stated simply, an IG CEU poses lower counterparty credit risk, and therefore the banking organization may be more willing to execute long-dated or larger derivative positions with the CEU even in the absence of receiving margin. Conversely, in the absence of appropriate collateralization arrangements, a Non-IG CEU poses greater counterparty risk, and a banking organization may moderate the scale or duration of its counterparty exposure accordingly.

The Agencies explain in the Proposal that SA-CCR is designed to "provide important improvements to risk-sensitivity" relative to existing derivative counterparty exposure measurements.[11] While, in principle, we agree that SA-CCR improves risk sensitivity in many areas, the Proposal does not include a risk-sensitive methodology for distinguishing among CEU transactions exempt from regulatory margin or clearing requirements. The most direct approach for improving risk-sensitivity would be to apply a 0.65 alpha factor to IG-rated CEU transactions.

The 0.65 IG-rated calibration is grounded in Revised Basel III, which permits banking organizations to apply a 65 percent risk-weight to IG-rated counterparties in the standardized risk-based capital framework.[12] Since application of a 0.65 alpha factor in SA-CCR together with a 65 percent counterparty risk-weight would provide an unwarranted double-reduction in risk-based capital requirements, we recommend that the Agencies only recognize a 0.65 alpha factor for IG CEU exposures if and to the extent that SA-CCR is implemented before the IG-rated counterparty risk-weighting in Revised Basel III takes effect (e.g., a 1.0 alpha factor would apply to IG-rated CEU transactions after implementation of the Revised Basel III 65 percent IG-rated counterparty risk-weighting).

To the extent that the Agencies require mandatory adoption of SA-CCR before adoption of Revised Basel III risk-weightings, application of a 0.65 alpha factor to IG-rated CEU transactions would eliminate volatility in counterparty exposure measurements that would otherwise occur between initial application of a 100 percent counterparty risk-weighting followed less than two years later by application of a 65 percent counterparty risk-weighting. More importantly, however, a 0.65 alpha factor, even if only applied temporarily or on an interim basis pending Revised Basel III implementation, would improve risk sensitivity in SA-CCR calculations based on IG status, a key counterparty credit risk criterion. Finally, application of a 0.65 alpha factor to IG CEU transactions would result in more equivalent outcomes with foreign jurisdictions, where a 1.4 alpha factor can be combined under Revised Basel III with external

[10] For example, the 0.65 alpha factor applied in this case could become 1.0 when the Revised Basel III 65 percent IG counterparty risk-weight is implemented.
[11] 83 Fed. Reg. at 64,662.
[12] Revised Basel III, "Standardised approach for counterparty credit risk," ¶ 42.

ratings-based counterparty risk-weights as low as 20 percent (which would be equivalent in some portfolios to applying a 0.28 alpha factor and a 100 percent counterparty risk weighting).[13]

ii. Non-IG CEU exposures involving first-priority liens

We also recommend that the Agencies incorporate greater risk sensitivity into SA-CCR by recognizing a reduced alpha factor when a banking organization receives a first-priority lien on underlying assets that would be sufficient to meet any anticipated credit exposures in the event of the Non-IG CEU's default.

As noted above, SA-CCR seeks to improve risk-sensitivity in measuring derivative collateralization practices, but by design limits collateral recognition to margin, which CEUs generally do not provide in derivative transactions (unless exposures exceed agreed-upon thresholds). Non-IG CEUs, however, often provide banking organizations with liens on physical assets, which can provide the banking organization with a substantial collateralization benefit in the event of the Non-IG CEU's default. Often such liens provide the banking organization with "right-way risk," meaning that the value of the assets covered by the lien increases when the counterparty is "out of the money" on the derivative contract and the banking organization has greater potential counterparty exposure.[14]

By way of illustration, an oil exploration and production company may own land with substantial reserves of un-extracted oil. To mitigate the risk of declines in oil prices, the company may execute a commodity derivative with a banking organization that provides the company with short exposure to oil (e.g., the company is "in the money" if oil prices decline). In this example, the banking organization, as the derivative counterparty, would have long exposure through the derivative to oil prices. If the company provided the banking organization with a lien on underlying oil reserves, the banking organization would have right-way risk: if oil prices rise to the point where the company is "out of the money" on the derivative, the company would be selling its physical oil for a higher price and generating higher revenues with which to pay the banking organization. In this scenario, the banking organization has a legal claim through the lien to oil reserves that have increased in value during the derivative transaction.

The lien in this example operates in a manner similar, although not identical, to initial margin recognized as a credit risk mitigant in the Proposal. Like initial margin, the lien provides the banking organization with access to resources that can offset potential exposures in the event of the counterparty's default. In addition, similar to initial margin, an appropriately structured lien can ensure that the value of resources to cover a default will not decline when the counterparty owes money to the banking organization on the derivative.

However, in the context of SA-CCR, liens are dissimilar to initial margin in that they may involve timing delays between a counterparty's default and the banking organization's ultimate receipt of liquid and marketable assets that offset any exposure at default. Also, liens do not have daily mark-to-market values comparable to initial margin values recognized as collateral in SA-CCR. For these reasons, while we believe that SA-CCR should recognize the value of first-priority liens in counterparty credit risk

[13] Revised Basel III, "Standardised approach for credit risk," Table 10 (e.g., 20 percent counterparty risk-weight x 1.4 alpha factor is mathematically equivalent to a 100 percent counterparty-risk weight x 0.28 alpha factor).
[14] 78 Fed. Reg. 62018, 62133-34 (Oct. 11, 2013) (discussing "wrong-way risk"); §_.2 (defining "wrong-way risk").

exposures, we believe it would be challenging to incorporate estimated lien vales as collateral in the SA-CCR calculation.

Instead, we believe that first-priority liens are better viewed as credit risk management practices that, when structured correctly, effectively reduce a banking organization's risk of loss and bolster a Non-IG CEU's credit risk profile. Following our recommendation to apply a reduced alpha factor when a banking organization faces an IG CEU, SA-CCR should also apply a lower alpha factor, potentially 0.65, when a Non-IG CEU provides a first-priority lien to a banking organization on underlying assets that would be sufficient to meet any anticipated credit exposures in the event of the Non-IG CEU's default. A reduced alpha factor could be conditioned in these cases, as relevant, on the absence of wrong-way risk.

3. SA-CCR should recognize letters of credit as collateral in CEU transactions

The Proposal would limit collateral recognition in SA-CCR to "financial collateral," the definition of which does not include letters of credit. We recommend that, in the case of CEU transactions, letters of credit issued by an "eligible guarantor" should receive recognition as collateral in the SA-CCR calculation.[15]

In some cases, CEUs use letters of credit issued by a depository institution as a substitute for posting cash margin. Letters of credit operate in a very similar manner to initial margin, since the banking organization would be permitted to draw cash against them from a bank in the event that a CEU defaults or, in some cases, approaches default. Similarly, letters of credit may serve as a variation margin substitute, with the banking organization permitted to draw against them based on mark-to-market changes in a CEU's derivatives portfolio. Since letters of credit, when drawn, result in the banking organization receiving cash, which is financial collateral, there is little practical difference between cash margin and letters of credit.

We recognize that the Agencies' regulatory capital framework includes a mechanism through which the value of an "eligible guarantee," including letters of credit, can be reflected in some cases in a risk-weight substitution approach.[16] To avoid double-counting, we recommend that letters of credit receive collateral recognition in the SA-CCR formula only if the banking organization has not separately applied the letter of credit to achieve an "eligible guarantee" risk-weight substitution (which, for derivative products, would generally be inapplicable).

This approach would improve risk-sensitivity in banking organizations' credit exposure measurements, accommodate a well-established commercial practice utilized by CEUs, accurately reflect financial resources that would be available to a banking organization in the event of a CEU's default, and rely on existing concepts and defined terms in the Agencies' regulatory capital framework. Collateral recognition in non-CEU transactions would remain limited to financial collateral, consistent with the margin standards applied by the Agencies to such transactions.

[15] § _.2.
[16] §§ _.2, _.36.

B. Improving risk-sensitivity in commodity derivatives

While we expect that the Proposal will have wide-ranging impacts across a variety of derivative contract asset classes, we believe that the most significant impacts may be to commodity derivative transactions. We provide the recommendations below to improve counterparty credit risk measurement principles for commodity derivatives to ensure that banking organizations continue to have the ability to serve as market intermediaries in the real economy with electricity cooperatives, oil and gas companies, municipalities, airlines, agricultural companies and similar entities that rely on commodity derivatives to hedge or mitigate underlying commercial risk or otherwise access commodity markets.

The Proposal modifies the Basel Committee's SA-CCR framework by grouping together electricity, oil and natural gas into a single energy commodity asset class and applying a relatively high supervisory factor of 40 percent to all positions in this energy asset class.[17] We support the Proposal's recognition of a single, combined energy asset class, but believe that the associated supervisory factor should be based on observed stress market volatility in energy forward contract markets rather than spot markets, which would suggest a supervisory factor of approximately 10 percent rather than 40 percent. Volatility in forward contract markets provides, we believe, a much stronger basis for calibrating SA-CCR supervisory factors than spot market data given that banking organizations' counterparty credit risk in energy derivatives typically extends at least several years in the future and their exposures are to price movements in these future periods. In addition, we request the Agencies to clarify that, for "basis derivative contracts," the notional value should be measured as the absolute value of the spread between the two underlying factors (whether positive or negative) multiplied by the number of units, which would provide a more accurate measurement of counterparty credit risk than defining the notional value with reference to the gross notional value of one factor of the spread.

Our comments in this section are informed by the fact that many commodity transactions are long-dated. Clients regularly execute multi-year, even multi-decade, transactions to hedge structural risks in their businesses or to obtain reliable multi-year access to commodity inputs or distribution networks. In its current design, the Proposal would upend the economic calculations underpinning commodity legacy portfolios, potentially resulting in disruptions to long-standing arrangements as banking organizations attempt to rescale these portfolios to meet SA-CCR-based return expectations. We are particularly concerned about the impact to energy markets and distribution networks in light of the Proposal's high supervisory factor applied to the energy asset class, which could result in firms significantly reducing their capital allocation to such asset class.

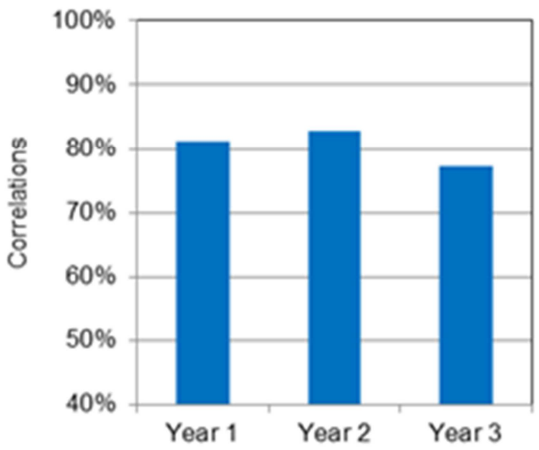
1. Energy asset class

Asset-class based counterparty buckets in SA-CCR should reflect products widely used as offsetting hedges to one another as well as the presence of market participants that are active across products within the same bucket. Based on these considerations, we believe that recognition of a single energy bucket is more appropriate than separate groupings for electricity versus oil and natural gas counterparty relationships.

[17] 83 Fed. Reg. at 64,671.

For example, there is a strong, observable correlation between the prices of North America electricity and natural gas, as demonstrated by Chart 1. Market regulators, including the U.S. Commodity Futures Trading Commission ("**CFTC**"), have solicited comments and evidence on the correlation between electricity and natural gas.[18] The strong correlation between North America electricity and natural gas is further demonstrated by the fact that market participants, including banking organizations but also industrial and commercial firms, regularly rely on natural gas futures contracts to hedge electricity power price exposure and vice versa.

Chart 1: Correlation between PJMW Peak and NYMEX natural gas for the front three years in forward markets (October 2008 to March 2019)[19]



2. Supervisory factor

The Basel Committee, when developing SA-CCR, may have applied a higher supervisory factor to electricity than oil or natural gas based on the greater observed volatility of electricity in spot markets in particular stress moments, as reflected in Chart 2, resulting in a Basel Committee-specified supervisory factor of 40 percent for electricity derivatives and an 18 percent supervisory factor for each of oil and natural gas derivatives. This volatility is not present, however, in longer-dated forward markets, where electricity is less volatile in most periods of recent market observation than either oil or natural gas, as reflected in Chart 3.

[18] See, e.g., Comment Letter from Morgan Stanley Capital Group, Inc. to the CFTC (Feb. 10, 2014), pp. 11-18; Comment Letter from ISDA and SIFMA to the CFTC, pp. 7-8 (Feb. 10, 2014).
[19] Source: Morgan Stanley data. Each year column in this chart represents all contracts in the defined period (e.g., Year 2 represents forward contracts with remaining maturities of 13 to 24 months).

Chart 2: Energy asset class front month contract market volatility[20]

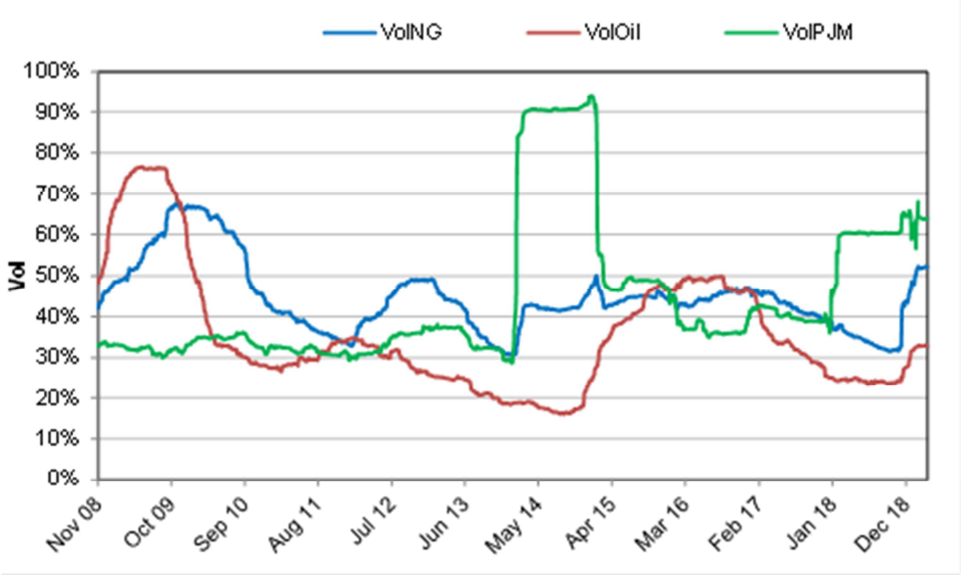
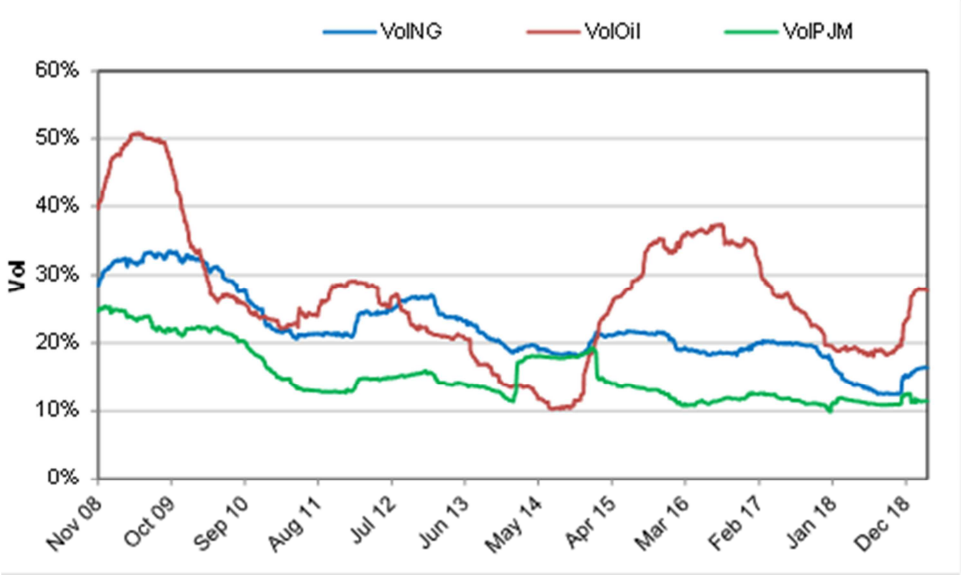


Chart 3: Energy asset class front two years forward market volatility[21]



Forward markets, we believe, provide a stronger conceptual and empirical foundation for calibrating SA-CCR supervisory factors than spot markets.[22] Market participants often hedge their

[20] Source: Morgan Stanley data. The data in this chart represent front-month market prices across each of electricity (PJM), oil (Oil) and natural gas (NG), which are utilized in this chart as the closest reliable proxy for comparable spot prices across the three subclasses.

[21] Source: Morgan Stanley data. The data in this chart represent the front two years of forward contracts (i.e., the mean price of forward contracts with remaining maturities of 1 to 24 months).

[22] See generally Glen Swindle, Valuation and Risk Management in Energy Markets (New York: Cambridge University Press, 2014), p. 91 (noting that "the empirical fact that forward curves can show periods of significant backwardation and contango requires that the volatility of forward prices decrease with tenor . . .").

forward commodity exposure to plan for future capital expenditures such as power plant construction and oil field drilling. These are medium- to long-term plans that require hedges in the corresponding time frame. Therefore, the supervisory factors should represent the periods of risk being managed rather than spot market prices. Electricity wind farms, for example, may execute ten-year energy forward contracts with banking organizations to "lock in" supply prices in support of lending covenants necessary to obtain financing for building new turbines. In addition, banking organizations' energy derivative exposures typically have maturities far beyond day-to-day fluctuations in spot markets; by definition, a contract executed for immediate purchase or sale in spot markets is not a derivative contract subject to SA-CCR.

Our analysis indicates that an energy class supervisory factor of approximately 10 percent would more accurately capture counterparty credit risk in energy derivative transactions—including electricity, oil and natural gas—than a 40 percent supervisory factor, as explained in greater technical detail in Annex A to this letter. In summary, our 10 percent supervisory factor recommendation is based on the analytical methodology described in the Basel Committee's SA-CCR working paper but updated to incorporate energy forward market data.[23]

While we have framed our comments in the context of the supervisory factor for energy derivatives, the same forward contract-based methodology should be applied generally to all commodity derivatives.

3. Basis derivative contracts

The Proposal introduces a new defined term, "basis derivative contract," into the Agencies' regulatory capital framework and provides a new methodology for measuring the notional value of such contracts. We support the recognition of basis derivative contracts as a distinct product in the regulatory capital framework, but believe that the notional value of such contracts should be measured as the absolute value of the spread between the two underlying factors (whether positive or negative) multiplied by the number of units. By contrast, modifying the supervisory factor applicable to the contract, but applying that factor to the gross notional value of one factor in the spread, is less risk-sensitive.

A basis derivative contract provides exposure to the difference between two underlying factors. For example, a common basis derivative contract is a natural gas basis swap providing exposure to the spread between NYMEX Henry Hub and another natural gas venue. In this example, the banking organization's client may seek exposure, over a period of time, to the spread between 100,000 NYMEX MMBtu, at an execution market price of $2.50 per MMBtu, and 100,000 MMBtu from the other location, at an execution market price of $2.55 per MMBtu. In this example, we believe that the correct notional value of the derivative transaction at execution is 100,000 x $0.05 or $5,000 (i.e., 100,000 MMBtu multiplied by the per-MMBtu price difference), rather than $255,000 (i.e., 100,000 MMBtu multiplied by $2.55 per MMBtu) or any other notional value that is calculated with reference to the gross value of one factor in isolation. Because SA-CCR requires the use of floating notional values, the notional value may change after execution based on increases or decreases in the spread.

[23] See Basel Committee, *Working Paper No 26: Foundations of the standardised approach for measuring counterparty credit risk exposures* (Aug. 2014 (rev. Jun. 2017)) (link).

The Proposal acknowledges the unique characteristics of basis derivative contracts by providing that the applicable supervisory factor in a basis derivative contract would be divided by half "because the volatility of a basis between highly correlated risk factors would be less than the volatility of the risk factors (assuming the factors have equal volatility)."[24] While reducing the supervisory factor by half would provide greater risk-sensitivity than applying a supervisory factor at full value to the gross notional of one factor, it would still be applied to an inaccurate notional value. In the example above, the banking organization is not providing its client with exposure to the performance of 100,000 NYMEX MMBtu, but instead to the spread for 100,000 MMBtu at different natural gas venues. For this reason, CFTC notional measurement principles are based on the spread between the factors rather than the gross notional value of one factor.[25]

Finally, we note that this notional value calculation practice is also well-suited for basis derivative contracts involving a fixed spread to a floating price index. For example, a banking organization may provide its client with exposure to the spread between 100,000 NYMEX MMBtu and a fixed amount that is always $0.03/MMBtu greater than the floating NYMEX price. The forward mark-to-market credit exposure is only $0.03/MMBtu regardless of changes in NYMEX natural gas prices (i.e., the notional value of $3,000, or $0.03 x 100,000 MMBtu, will remain constant in all cases).

A fixed-spread basis derivative contract presents significantly lower risk than one in which the banking organization agrees to provide a fixed price rather than a spread. For example, if a banking organization provides exposure to a fixed price of NYMEX $3.00/MMBtu, and NYMEX values decrease to $2.00/MMBtu, the banking organization would have $1.00/MMBtu of credit risk exposure to the counterparty. This scenario presents significantly greater counterparty risk than the prior example, where the quantum of the credit exposure is constant at $0.03/MMBtu regardless of even significant market volatility, such as prices declining from NYMEX $3.00/MMBtu to NYMEX $2.00/MMBtu. Accordingly, we believe that the notional value of a basis derivative contract should be calculated with reference to the spread between the two factors rather than the gross value of a single factor—e.g., $3,000, or $0.03 x 100,000 MMBtu, in the prior example above—even if subject to a reduced supervisory factor.

4. Commodity index supervisory factors

The Proposal applies lower supervisory factors to equity and credit indices, as opposed to single-name positions in those asset classes, in recognition of the diversification benefits of indices.[26] We recommend that the Proposal apply a similar downward adjustment for commodity indices in recognition of the same diversification benefits. Commodity indices are typically comprised of commodity assets

[24] 83 Fed. Reg. at 64,675.
[25] See CFTC, Division of Swap Dealer and Intermediary Oversight, FAQs About Swap Entities (Oct. 12, 2012) (link), p. 1 ("How is the notional amount calculated for locational basis swaps referencing only one physical commodity? For locational basis swaps referencing only one physical commodity, the notional amount should be calculated using the difference in fair market value of the physical commodity at the two locations, multiplied by the number of units referenced in the swap. For example, in a basis swap for 10,000 units of a physical commodity as delivered to Location A and 10,000 units of the same physical commodity as delivered to Location B in which one unit of the physical commodity at Location A has a fair market value of $110 per unit and one unit of the physical commodity at Location B has a fair market value of $100 per unit, the notional value of the swap will be $10 multiplied by 10,000 units, or $100,000.")
[26] 83 Fed. Reg. at 64,671, 64,675.

across various sectors (energy, metals and agriculture and livestock), which are usually not correlated to each other and most commodity risk premium indices are relative value long/short indices that track differentials between related commodities. In addition to diversification benefits, they also have a low volatility.

The diversification benefits associated with commodity indices are demonstrated by the historical volatility of the Bloomberg Commodities Index (BCOM), a leading commodity index, which is comprised of numerous components from across the commodity subclasses. Annex A includes data demonstrating that a lower supervisory factor would more accurately reflect observed volatility in commodity indices.

5. Inclusion of gold with exchange rate derivatives

The Agencies' existing regulatory capital rules require gold to be included in the foreign exchange rate category when calculating derivative counterparty credit risk exposures.[27] The Proposal would recognize a new commodity subclass, "metals," as well as an "exchange rate" asset class, but does not clarify where gold would be included. We request the Agencies to clarify that gold would remain in the exchange rate asset class, consistent with existing practice and market conventions. We also believe that there is no analytical basis to classify gold as a non-commodity product in the Current Exposure Method ("**CEM**") but then classify gold as a commodity product in SA-CCR. This clarification is also necessary to avoid major discrepancies in the treatment of gold across banking organizations subject to SA-CCR on a mandatory basis and other banking organization that will remain subject to CEM.

C. Improving risk-sensitivity in equity derivatives

Our internal analysis suggests that SA-CCR, if adopted in its current form, may have significant impacts on equity derivative markets that exceed the projections forecasted in the preamble to the Proposal. Consistent with the Agencies' stated purpose of improving risk-sensitivity in derivatives contract counterparty credit risk measurement, we believe that there are two key equity derivative issues that should be addressed before the Agencies finalize the SA-CCR framework.

First, banking organizations' margining practices in equity derivatives are, generally speaking, highly conservative, to the point where it is common to collect multiples of the initial margin amount in excess of what would be required under the Agencies' Uncleared Margin Rule ("**UMR**"). SA-CCR, by contrast, includes certain calculation features that prevent a banking organization from applying the full value of margin collected against potential future exposure ("**PFE**"). While we appreciate that the Agencies designed SA-CCR to ensure that collection of UMR-specified collateral would not eliminate PFE requirements, we believe that SA-CCR should also contemplate commercially-negotiated margining arrangements that far exceed UMR-specified levels and nearly eliminate any counterparty credit tail risk. Accordingly, we recommend that SA-CCR should permit greater PFE reductions for heavily collateralized portfolios, which might be achieved through adjustments to the exponential function in the PFE multiplier or through adjustments to the 5 percent PFE multiplier floor.

[27] § _.34 Table 1.

Second, we believe that the equity supervisory factors, as proposed, are risk-insensitive to meaningful distinctions in counterparty credit risk. Applying a uniform 32 percent supervisory factor to all single-name equity derivative transactions, for instance, fails to distinguish by relevant issuer characteristics—such as advanced versus emerging market status, capitalization size, issuer sector, IG status, or even the issuer's securities' liquidity value—that are relied upon in other regulatory frameworks to provide risk-based distinctions. The treatment of equity derivatives in SA-CCR is inconsistent with FRTB SA, which includes more granular distinctions across equity issuers, and introduces a fundamental tension with the treatment of credit derivatives in SA-CCR, where the supervisory factors vary based on IG, speculative grade and sub-speculative grade status even when the same issuer's equity securities would be subject to a uniform 32 percent equity supervisory factor. Accordingly, we recommend that the Agencies recognize more granular and risk-sensitive supervisory factors in SA-CCR for equity derivatives.

1. Heavily over-collateralized equity derivative portfolios

The Agencies request comment in the Proposal on whether the PFE multiplier in SA-CCR can be more appropriately calibrated.[28] We believe that the PFE multiplier should be revised to permit greater recognition of collateral when a counterparty portfolio is heavily collateralized, especially in cases in which collateralization levels exceed UMR-specified levels by multiples. While this recommendation is agnostic to asset class, in practice it is most relevant for equity derivative portfolios, where banking organizations often collect very high initial margin amounts relative to the notional values of portfolios.

We understand that the Agencies designed and calibrated SA-CCR to provide an additional and separate layer of conservatism in counterparty credit risk management beyond UMR. While SA-CCR permits some reduction in counterparty credit risk charges when a banking organization receives UMR-specified initial and variation margin amounts from a derivatives counterparty, it does not permit a banking organization to extinguish its counterparty credit risk exposure entirely through the collection of margin. Instead, regardless of how much initial margin is collected, SA-CCR will still produce a residual counterparty credit risk exposure measurement. While we agree that SA-CCR should not recognize the collection of UMR-specified margin levels as eliminating entirely counterparty credit risk, we believe that SA-CCR should permit greater collateral recognition in cases where a banking organization is heavily over-collateralized and has effectively managed its counterparty credit risk to negligible levels.

SA-CCR prevents complete recognition of margin as an exposure offset in two ways. First, the PFE multiplier includes a negative exponential function that provides gradually decreasing collateral recognition benefits as a portfolio becomes increasingly over-collateralized. In other words, while SA-CCR recognizes additional layers of collateralization as exposure mitigants, the rate of exposure reduction recognized declines as portfolios become more and more collateralized. Second, the PFE multiplier includes a 5 percent floor to ensure that a PFE-based capital requirement will apply to all transactions, even the most heavily over-collateralized.[29]

We understand the rationale for including an exponential function and floor in the PFE multiplier when counterparty portfolios are collateralized in accordance with UMR standards, which by themselves

[28] 83 Fed. Reg. at 64,672 (Question 10).
[29] 83 Fed. Reg. at 64,672.

do not eliminate all tail risk. Many equity derivative transactions, however, involve UMR-exempt counterparties from which the banking organization collects initial margin levels that are multiples of UMR levels—and, in the most heavily collateralized portfolios, involve initial margin levels that approach the notional value of the derivative. In these cases, the exponential function and floor in the PFE multiplier do not appear to result in risk-sensitive measures of counterparty credit risk exposure.

While we believe that the adjustments to the exponential function and 5 percent floor would most directly address these impacts, we note that the Agencies might also permit banking organizations to apply a lower alpha factor to heavily over-collateralized portfolios that meet defined thresholds. A modified alpha factor, if structured appropriately, could effectively achieve greater collateral recognition in PFE-based requirements.

2. More granular and risk-sensitive equity supervisory factors

We recommend that SA-CCR recognize a range of supervisory factors for equity derivatives that are scaled to account for observed risk drivers and otherwise reflect greater conceptual and operational alignment with FRTB SA equity classifications and other related regulatory standards. The Agencies might achieve this objective, for instance, by reducing single-name and index equity supervisory factors for IG-rated equity issuers and advanced market equity issuers, following SA-CCR's approach to credit derivatives and elements of FRTB SA.[30]

Graduated equity supervisory factors would correct for an imbalance in the treatment of credit and equity derivatives in the Proposal in which credit supervisory factors vary based on IG, speculative grade or sub-speculative grade status while equity supervisory factors apply without any similar distinctions. Similarly, graduated equity supervisory factors would better align with the analytical foundations of FRTB SA, as finalized by the Basel Committee in 2019, which recognize 13 distinct equity classification buckets reflecting various combinations of equity issuer advanced versus emerging market status, capitalization size, and industry. Finally, variable equity supervisory factors would also better align, in principle, with the Agencies' Liquidity Coverage Ratio ("**LCR**"), which distinguishes among equity securities based on whether they are included in major global indices and whether, in a 30-day period of observed market stress, they have declined in value by more than 40 percent.[31]

We believe that any final technical revisions to equity supervisory factors should work in tandem with greater collateral recognition in heavily over-collateralized equity portfolios and the Agencies' plans for implementing FRTB SA. As with our prior recommendation, the Agencies might also incorporate greater risk-sensitivity into equity derivative SA-CCR calculations through tailored downward adjustments to the alpha factor as applied to equity derivative portfolios that meet clearly defined risk profile criteria.

[30] See 83 Fed. Reg. at 64,676 (Question 12) (requesting comment on supervisory factors).
[31] See LCR § _.20(c)(3)(i), (iii)(A).

D. SA-CCR should be implemented in a manner that strengthens the coherence of the regulatory capital framework

1. The effective date of mandatory SA-CCR adoption should be aligned with the effective dates of FRTB SA and changes to standardized counterparty risk-weightings

The Agencies request comment on whether the mandatory effective date of SA-CCR should be July 1, 2020 or a different date.[32] We believe that the effective date and final calibration of SA-CCR should take into account related changes to the regulatory capital framework that substantially overlap with SA-CCR's methodology and policy objectives.

Key open or anticipated rulemakings related to SA-CCR include:

- *FRTB SA*: After the Agencies published the Proposal for comment, the Basel Committee published a revised FRTB SA framework with a target global effective date of January 1, 2022. While both SA-CCR and FRTB SA are standardized approaches that would apply to the same derivative transactions (the former focused on credit risk, the latter focused on market risk), there are significant differences in the design and calibration of SA-CCR and FRTB SA. For instance, FRTB SA applies graduated risk-weights of 30 to 70 percent to equity spot positions, whereas SA-CCR applies a uniform supervisory factor to all single-name equity positions. We believe that SA-CCR, originally published by the Basel Committee in 2014 based on data analytics from preceding years, should be reconciled with FRTB SA, published in 2019, and that the two frameworks should be implemented concurrently to avoid unnecessary volatility in capital requirements that would result from staggered adoption over 18 months.

- *Revised counterparty risk-weights*: The Basel Committee has revised the standardized counterparty credit risk framework to recognize, among other changes, an IG corporate counterparty risk-weight of 65 percent, which is scheduled to take effect on January 1, 2022.[33] Mandatory adoption of SA-CCR by July 1, 2020 would introduce significant and avoidable volatility in risk-based capital requirements since counterparty risk-weights utilized by SA-CCR would change 18 months after initial SA-CCR implementation.

- *CCAR analysis*: The Board is considering whether and how to revise trading asset shock assumptions in the annual CCAR stress loss exercise.[34] Calibration of SA-CCR final standards should work harmoniously with CCAR trading asset shock assumptions to avoid double-counting or missing material risks.

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[32] 83 Fed. Reg. at 64,663 (Question 2).
[33] Revised Basel III, "Standardised approach for counterparty credit risk," ¶ 42.
[34] Hon. Randal K. Quarles, Board Vice Chairman for Supervision, "A New Chapter in Stress Testing" (Nov. 9, 2018), p. 5 ("Many have noted that a single market shock does not adequately capture risks in firms' trading book, and we agree with those comments.") (link).

- *Stress Capital Buffer proposal*: The Board has proposed to integrate, through creation of an SCB, its regulatory capital requirements for large bank holding companies ("**BHCs**") with stress loss results from the annual CCAR exercise.[35] It appears likely that SCB requirements will take effect in mid-2020, resulting in an overlap with a mandatory SA-CCR effective date of July 1, 2020.[36] Combining the effective date of SA-CCR with SCB go-live will substantially increase volatility risks in capital management—BHCs would only receive SCB requirements in June 2020 after completion of the annual CCAR exercise, almost concurrent with transition to a revised risk-based capital methodology—even though the Board has expressed concerns with potential volatility issues related to SCB implementation.[37]

For the reasons above, we recommend postponing the mandatory effective date of SA-CCR to align with the effective dates of FRTB SA and revised standardized counterparty risk-weightings, each of which has a target effective date of January 1, 2022.

2. <u>The largest counterparty default component of CCAR should align with SA-CCR analysis and distinguish between margined and un-margined derivatives counterparty relationships</u>

The CCAR exercise requires BHCs to calculate their largest single counterparty default as part of the global market shock component. In current practice, CCAR estimates of the largest counterparty defaults do not distinguish between margined and unmargined counterparties. The Proposal, by contrast, "would differentiate between margined and unmargined derivative contracts such that a netting set that is subject to a variation margin agreement . . . would always have a lower or equal exposure amount than an equivalent netting set that is not subject to a variation margin agreement."[38]

We recommend that the Board revise the CCAR largest counterparty default analysis to distinguish between margined and unmargined counterparty relationships.[39] This approach would improve risk-sensitivity in CCAR stress loss estimates and align the conceptual foundation of the CCAR analysis with the stated rationale of SA-CCR, which distinguishes between margined and un-margined transactions.[40] In addition, this approach would ensure that SCB-based regulatory capital requirements—which are designed to combine CCAR stress loss estimates with generally applicable risk-based capital requirements—would be based on a uniform, harmonious recognition of margining arrangements.

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[35] 83 Fed. Reg. 18,160 (Apr. 25, 2018).
[36] Hon. Randal K. Quarles, Board Vice Chairman for Supervision, "A New Chapter in Stress Testing" (Nov. 9, 2018), p. 4 ("I expect that the first SCB would not go into effect before 2020.").
[37] Hon. Randal K. Quarles, Board Vice Chairman for Supervision, "A New Chapter in Stress Testing" (Nov. 9, 2018), p. 4 ("The issue foremost on my mind is the volatility of the stress test results.").
[38] 83 Fed. Reg. at 64,666.
[39] In practice, a firm's largest counterparty exposure could arise from either a margined or unmargined relationship. Where a firm's largest counterparty exposure arises in a margined relationship, the associated stress loss analysis should take into account the benefits of margining.
[40] Since BHCs' largest counterparty default analysis will almost always involve an exposure to a large financial institution subject to margining arrangements, our recommendations in Part II.A of this letter related to lien recognition are not relevant in the context CCAR largest counterparty default analysis.

3. The Agencies should engage in an active dialogue with banking organizations to facilitate an orderly transition to SA-CCR calculations

Implementing SA-CCR will require banking organizations to make significant changes to their technology infrastructures, in particular for purposes of calculating floating notional amounts in SA-CCR-related regulatory reporting. We encourage the Agencies to engage in an active dialogue with banking organizations in the coming months to discuss approaches to notional amount calculations, as waiting for guidance in a final rulemaking may not permit sufficient time to build, test and implement required control processes by a mandatory July 2020 effective date. Annex B to this letter presents, for the Agencies' consideration, how SA-CCR notional amount calculation principles may apply to volatility derivatives.

III. Conclusion

We support the Agencies' efforts in the Proposal to improve risk-sensitivity in counterparty credit risk and appreciate the opportunity to provide comments on this significant rulemaking. Please contact us if discussion of any of the points from our letter would be helpful.

Respectfully submitted,

[redacted]

Sebastiano Visentini
Managing Director

<u>Annex A</u>: Technical analysis in support of an energy asset class supervisory factor of approximately 10 percent

The SA-CCR methodology is based on a global SA-CCR standard adopted by the Basel Committee in 2014. The Basel Committee has published a working paper (the "**SA-CCR Working Paper**") explaining the design and calibration of SA-CCR.[41] We believe that the methodology described in the SA-CCR Working Paper supports a supervisory factor of approximately 10 percent for the energy asset class when forward, rather than spot, market data is used for energy derivatives.

As explained in the SA-CCR Working Paper, SA-CCR approximates trade-level volatility through the following formula:

$$\sigma_i = \frac{3 \ \mathrm{SF}_i^{(a)}}{2 \ \varphi(0)} \cdot |\ \delta_i\ | \cdot d_i^{(a)}$$

In this formula, "the first factor (the ratio) can be interpreted as the standard deviation of the primary risk factor at a one-year horizon." To calculate the standard deviation, a supervisory factor, or SF, must be included in the calculation. (The two additional formula components, δ_i and $\delta_i^{(a)}$, can be disregarded for purposes of this analysis, as they correspond to portfolio-specific directionality and notional value, respectively, which will vary on a transaction-by-transaction basis.)[42]

A SF of 40 for the energy asset class would suggest a standard deviation at a one-year horizon of approximately 150 percent.

$$\sim 150\% = \frac{3*40}{2*\sqrt{\frac{1}{2\pi}}}$$

By contrast, a SF of 10 would suggest an energy asset class standard deviation at a one-year horizon of approximately 38 percent.

$$\sim 38\% = \frac{3*10}{2*\sqrt{\frac{1}{2\pi}}}$$

We evaluated ten calendar years of market data to identify the most stressful periods of market volatility in the average of two-year forward contract markets involving electricity, oil and natural gas.[43] The results of this analysis were:

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[41] Basel Committee, *Working Paper No. 26: Foundations of the standardised approach for measuring counterparty credit risk exposures* (Aug. 2014 (rev. Jun. 2017)).
[42] SA-CCR Working Paper, p. 6.
[43] While we used calendar years for ease of reference, we expect the results of forward market data would be broadly consistent across any two-year time series within the 2008 to 2018 period.

Asset category	Calendar year of greatest volatility	Standard deviation of forward markets in calendar year of greatest volatility
Electricity	1/1/08-12/31/08	24%
Oil	1/1/08-12/31/08	47%
Natural gas	1/1/09-12/31/09	32%
BCOM	1/1/08-12/31/08	29%

A SF of 10 percent for the energy asset class would result in conservative estimates of electricity and natural gas volatility and would approximate observed volatility in oil markets in the most volatile years in the recent past.

In addition, as noted in Part II.B.4, the relatively lower observed volatility in BCOM in market stress periods suggests that a reduced supervisory factor should apply to commodity indices.

Annex B: Calculating the SA-CCR notional amount in volatility derivatives

The Proposal indicates, with respect to calculating the notional amount of volatility swaps in the equity and commodity asset classes, that "when calculating the adjusted notional amount for an equity derivative contract or a commodity derivative contract that is a volatility derivative contract, the Board-regulated institution must replace the unit price with the underlying volatility referenced by the volatility derivative contract and replace the number of units with the notional amount of the volatility derivative contract."[44]

We believe that the "underlying volatility referenced by the volatility derivative contract" referred to above means the current market volatility of the reference volatility in the derivative contract. For example, consider a volatility swap referencing the CBOE Crude Oil Volatility Index in which the volatility strike is 29.49 but the current market volatility is 31.00 as of the SA-CCR calculation date. We believe that, for SA-CCR purposes, the current market volatility of 31.00 is the "underlying volatility referenced by the volatility derivative contract" for purposes of determining the notional amount of the derivative contract as of the calculation date. This approach is consistent with related guidance in the Proposal that, with respect to equity or commodity derivative contracts, "the adjusted notional amount is the product of the fair value of one unit of the reference instrument underlying the derivative contract and the number of such units referenced by the derivative contract."[45] For volatility swaps, the fair value is equivalent to the market volatility as of the calculation date.

[44] Proposed Rule § 217.132(c)(9)(i)(C)(2). While we have quoted from the Board's proposed rulemaking text for reference, the Proposal includes corresponding amendments to the OCC's and FDIC's regulatory capital frameworks.
[45] 83 Fed. Reg. at 64,674.