Office Of The Inspector General
OIG
Commodity Futures Trading Commission

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June 5, 2017

TO: J. Christopher Giancarlo, Acting Chairman
Sharon Y. Bowen, Commissioner

FROM: A. Roy Lavik
Inspector General

SUBJECT: A Review of the Cost-Benefit Consideration for the Margin Rule for Uncleared Swaps

Please find attached the final version of my office's Review of the Cost-Benefit Consideration for the Margin Rule for Uncleared Swaps.

We received Management's comments to the draft I circulated in April and have made no substantive changes to the report. I am pleased to read that Management agrees with the report's recommendations, particularly with regard to more economically rigorous cost-benefit analysis and my view that the Office of the Chief Economist should engage in more long-term academic research into the markets within the CFTC's purview.

Thank you for your continued support of my office.

Attachment: A Review of the Cost-Benefit Consideration for the Margin Rule for Uncleared Swaps

Cc (with attachment): Daniel J. Davis, General Counsel
Anthony C. Thompson, Executive Director

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A Review of the Cost-Benefit Consideration for the Margin Rule for Uncleared Swaps

Prepared by

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The Office of the Inspector General
Commodity Futures Trading Commission

June 5, 2017

This report has been redacted by the Commodity Futures Trading Commission under Freedom of Information Act Exemption 6, 5 U.S.C. §552(b)(6), not by the CFTC OIG.

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EXECUTIVE SUMMARY

The Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank") was signed into law on July 21, 2010.[†] Among its many provisions, Dodd-Frank mandated the promulgation of rules establishing margin requirements for uncleared swaps. In December 2015, the CFTC finalized its rule ("the Margin Rule") implementing the mandate.[‡] The CFTC is required by law to consider the costs and benefits of new rules. This report evaluates the CFTC's consideration of the costs and benefits of the Margin Rule.

A thorough consideration of costs and benefits based on rigorous economic analysis informs regulators, Congress, and the public of the likely effects of a policy change. But the CFTC lacks an institutional commitment to robust cost-benefit consideration. The cost-benefit consideration for the CFTC's Margin Rule exemplifies this shortcoming.[§]

The CFTC's cost-benefit consideration lacks a clear discussion of the market failure justifying regulatory intervention. It lightly refers to the 2007-2008 financial crisis and asserts without scrutiny that the Margin Rule will reduce systemic risk. It makes no attempt to discern the magnitude of the risk reduction or to quantify any costs other than the cost of maintaining margin collateral. Most importantly, the cost-benefit consideration elides numerous issues and unintended consequences that might undercut the asserted systemic risk-mitigating effects of margin or increase the burdens on market participants. Among other things, the cost-benefit consideration does not sufficiently address:

- The possibility that the rule will reduce market liquidity and undermine efficient risk-hedging by market participants;
- The procyclical effects of margin requirements and the possibility that the Margin Rule could exacerbate systemic risk in times of market stress;
- The likelihood that systemic risk may be heightened by an industry-wide homogeneous approach toward risk-modeling in response to the Margin Rule's initial margin modeling specification;
- The potential behavioral responses of market participants or interaction effects with other laws and regulations that could transfer risk to other financial markets or to systemically important firms, resulting in increased systemic risk;
- The possibility that interpretation, implementation, and enforcement of the rule may differ from what was assumed by the rulemaking team.

[†] Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub.L. 111-203, 124 Stat. 1376 (2010).
[‡] CFTC Margin Requirements for Uncleared Swaps for Swap Dealers and Major Swap Participants, 81 Fed. Reg. 636 (January 6, 2016).
[§] Our analysis does not make any claims with respect to the *legal* sufficiency of the CFTC's cost-benefit consideration.

In addition, the agency's data infrastructure is inadequate, particularly with respect to the market for uncleared swaps. This inadequacy precludes a convincing analysis of costs and benefits, as well as a retrospective review of the rule's efficacy. It also hampers regulatory oversight more generally.

Based on our review, we make the following recommendations:

1. When considering the costs and benefits of a proposed rule, the CFTC should establish a baseline understanding of the marketplace; specify the market failure justifying regulatory intervention; consider whether the market failure stems from existing regulations; and apply assumptions symmetrically across policy options. The CFTC should attempt to identify unintended consequences and strive to quantify costs and benefits. Moreover, the CFTC should engage in periodic retrospective analysis to monitor the cost-effectiveness of the rule. Because the substantive economic issues highlighted in our review are all amenable to in-depth economic research, we reaffirm our recommendation that the Office of the Chief Economist ("OCE") encourage long-term academic research, by its own staff and by outside economists, to increase understanding of CFTC-regulated markets.

2. The CFTC should focus resources on improving its data infrastructure, particularly with regard to uncleared swaps. With respect to rulemakings in particular, the CFTC should strive to identify, early in the rulemaking process, the data that will be needed to establish a baseline understanding of the market, to estimate the effects of potential policy choices, and to conduct retrospective analysis for policy effectiveness.

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INTRODUCTION

On July 21, 2010, President Obama signed the Wall Street Reform and Consumer Protection Act ("Dodd-Frank").[1] Dodd-Frank amended the Commodity Exchange Act ("CEA")[2] to establish "a comprehensive regulatory framework designed to reduce risk, to increase transparency, and to promote market integrity within the financial system."[3] Dodd-Frank added a new section, 4s, requiring the CFTC to establish margin requirements for uncleared swaps.[4] After a years-long rulemaking process involving extended deliberations with international regulatory bodies and harmonization efforts with other domestic regulators, the Commodity Futures Trading Commission ("CFTC") finalized a margin rule for uncleared swaps ("the Margin Rule") in December 2015. As part of the rulemaking process, the CFTC, as required by law, considered the costs and benefits of its proposed rule. This report takes stock of the CFTC's cost-benefit consideration.[5]

METHODOLOGY

To complete this review of the Margin Rule,[6] we requested and reviewed hundreds of internal CFTC documents from the rulemaking team and cost-benefit contributors. We also reviewed publicly available materials such as relevant economics and finance scholarship, reports of international organizations like the Basel Committee on Banking Supervision ("BCBS") and International Organization of Securities Commissions ("IOSCO"), public commentary and criticism of the proposed and final uncleared margin rules of the CFTC and Prudential Regulators, and past analyses, by various Inspectors General and others, of financial regulatory agencies' cost-benefit analyses.[7] We also conducted 29 interviews of 18 members of the CFTC, from the Division of Swap Dealer and Intermediary Oversight ("DSIO"), Division of

[1] Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub.L. 111-203, 124 Stat. 1376 (2010).
[2] 7 U.S.C. § 1 et seq.
[3] CFTC, Final Rule, Margin Requirements for Uncleared Swaps for Swap Dealers and Major Swap Participants, 81 Fed. Reg. 636 (January 6, 2016) [hereinafter "CFTC Margin Rule"].
[4] Dodd-Frank § 731; CEA § 4s(e)(2)(B)(ii); 7 U.S.C. § 6s(e)(2)(B)(ii).
[5] Our analysis does not make any claims with respect to the *legal* sufficiency of the CFTC's cost-benefit consideration.
[6] CFTC OIG adhered to the principles laid out in Council of Inspectors General on Integrity and Efficiency, *Quality Standards for Inspection and Evaluation* (January 2012).
[7] We issued reports on CFTC's cost-benefit analyses in Dodd-Frank rulemakings in April and June 2011. CFTC OIG, *An Investigation Regarding Cost-Benefit Analyses Performed by the Commodity Futures Trading Commission in Connection with Rulemakings Undertaken Pursuant to the Dodd-Frank Act* (April 15, 2011) ("April 2011 OIG Report"); CFTC OIG, *A Review of Cost-Benefit Analyses Performed by the Commodity Futures Trading Commission in Connection with Rulemakings Undertaken Pursuant to the Dodd-Frank Act* (June 13, 2011) ("June 2011 OIG Report").

Clearing and Risk ("DCR"), Office of General Counsel ("OGC"), and Office of the Chief Economist ("OCE"); multiple outside academic economists specializing in fields related to the CFTC's jurisdiction; and staff at the Federal Reserve and the National Futures Association ("NFA"). Our fieldwork took place between October 2016 and March 2017.

BACKGROUND

What is Margin?

"Initial margin" refers to an amount of relatively safe assets posted[8] by a party at the inception of a swap agreement and, in the event of the posting party's default, made available to the counterparty as protection against losses from having to re-establish or close the swap position. It takes time for the non-defaulting party to find a replacement swap deal, during which time the benefits of the original swap are unavailable and the price of the swap may be moving disadvantageously. Initial margin therefore reduces counterparty risk by providing collateral to the non-defaulting party in the event of default. Initial margin is set according to a forward-looking calculation and therefore requires some method of quantifying the risk of adverse future events.

"Variation margin" refers to periodic payments representing changes in the value of the swap. Requiring frequent payments based on re-valuations of the swap protects against counterparty risk by leading to earlier recognition of a swap participant's inability to meet its obligations and by preventing large exposures from building up undetected.

Broader Benefits of Margin

In addition to providing protection directly to the parties to the swap agreement, initial and variation margin offer some protection to the financial system more broadly. By mitigating the damage a failing party can inflict on a non-failing party, margin decreases the possibility that one firm's default leads to defaults by other firms and, via the domino effect, system-wide contagion. The added burden of having to tie up more assets as swap margin collateral also forces parties to have more "skin in the game," it reduces the number of swap agreements a firm can execute, and it therefore reduces the "build-up of risk that may ultimately pose systemic risk" to the financial system as a whole.[9]

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[8] The assets must be transferred to a third-party custodian. Ownership of the assets remains with the posting party. CFTC Margin Rule, 81 Fed. Reg. at 687.
[9] CFTC Margin Rule, 81 Fed. Reg. at 665.

International Regulatory Response to the Financial Crisis

According to the consensus view of regulators worldwide, a lack of transparency and excessive risk-taking in uncleared derivatives greatly exacerbated the 2007-2008 financial crisis and "exposed significant weaknesses in the resiliency of banks and other market participants."[10] In order to mitigate systemic risk in the marketplace, regulators sought to create a new globally harmonized regulatory framework.

In 2009, the G20[11] put forth basic principles for worldwide regulatory reform that included exchange-trading and central clearing of standardized derivatives contracts and capital requirements on uncleared swaps.[12] In 2010, Congress passed Dodd-Frank, which required the CFTC to mandate clearing of standardized swaps and adopt margin requirements on uncleared swaps. In 2011, the G20 added initial and variation margin requirements on uncleared swaps to the reform agenda.[13] From 2011 to 2013, a working group comprised of BCBS and IOSCO members fleshed out a detailed regulatory reform agenda. Representatives of more than 20 regulatory authorities took part in deliberations, including, from the United States, the Federal Reserve Board ("the Fed"), the Federal Deposit Insurance Corporation ("FDIC"), the Office of the Comptroller of the Currency ("OCC"), the Federal Reserve Bank of New York, the Securities and Exchange Commission ("SEC"), and the CFTC. In September 2013, the BCBS/IOSCO working group issued a draft report articulating eight "minimum standards" for uncleared margin rules, as well as a quantitative impact study to gauge potential liquidity and other consequences of the prescribed margin regime.[14]

The international framework presented by BCBS/IOSCO served as a blueprint for rule-writing efforts by domestic regulators and foreign regulators alike. In the United States, jurisdiction over swap market participants is fractured; as a result, three sets of margin rules were written. The regulatory agencies defined under the CEA as the "Prudential Regulators"—the Fed, FDIC, OCC, the Farm Credit Administration, and the Federal Housing Finance Agency[15]—

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[10] BCBS/IOSCO, *Margin requirements for non-centrally cleared derivatives* (March 2015), http://www.bis.org/bcbs/publ/d317.pdf.

[11] The Group of Twenty (G20) is a "forum for international cooperation on financial and economic issues." It includes Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the United Kingdom, the United States, and the European Union. G20, FAQs, https://www.g20.org/Webs/G20/EN/G20/FAQs/faq_node.html.

[12] *G20 Leaders Statement: The Pittsburgh Summit* (September 24-25, 2009), http://www.g20.utoronto.ca/2009/2009communique0925.html.

[13] BCBS/IOSCO, *Margin requirements for non-centrally cleared derivatives* (March 2015), *citing* G20, *Cannes summit final declaration*, www.g20civil.com/documents/Cannes_Declaration_4_November_2011.pdf.

[14] BCBS/IOSCO, *Margin requirements for non-centrally cleared derivatives* (September 2013), http://www.bis.org/publ/bcbs261.pdf. The report was finalized in 2015. *See* fn. 10.

[15] 7 U.S.C. § 1a(39).

wrote a rule for the wide range of financial institutions within their jurisdiction.[16] The SEC proposed a rule for securities-based swap market participants not regulated by the Prudential Regulators.[17] And the CFTC wrote a rule for non-securities-based swap market participants not regulated by the Prudential Regulators. Section 4s(e)(3)(D) of the CEA[18] required the Commission to coordinate with the Prudential Regulators and the SEC "to the maximum extent practicable" and establish and maintain comparable margin rules.

The CFTC's Margin Rule for Uncleared Swaps was finalized in December 2015 and published in the Federal Register in final form in January 2016.

THE CFTC'S FINAL MARGIN RULE

The Rulemaking Team and Cost-Benefit Contributors

The rulemaking team for the Margin Rule consisted of team leader John Lawton, at the time the Deputy Director for Risk Surveillance in the Division of Clearing and Risk ("DCR"); [redacted], a senior financial risk analyst in the Division of Swaps and Intermediary Oversight ("DSIO"); Paul Schlichting, Assistant General Counsel in the Office of General Counsel ("OGC"); and [redacted], Attorney Advisor in DSIO.[19] Thomas Smith, Deputy Director of Managed Funds & Financial Requirements in DSIO, was also a part of the team and advised it on potential issues overlapping with the CFTC's forthcoming capital requirements rule. The consideration of costs and benefits was the joint responsibility of [redacted], an economist in the Office of the Chief Economist ("OCE"); Scott Mixon, Associate Director in OCE; and [redacted], an OCE economist.

Summary of the Margin Rule

Dodd-Frank bifurcated the U.S. swaps market into cleared and uncleared products. A defined set of commonly transacted swaps are now required to be cleared by a derivative clearing organization.[20] The remainder of swaps are "uncleared" and subject to the Margin Rule.

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[16] Prudential Regulators, Final Rule, Margin and Capital Requirements for Covered Swap Entities, 81 Fed. Reg. 50605 (August 2, 2016).
[17] SEC, Proposed Rule, Capital, Margin, and Segregation Requirements for Security-Based Swap Dealers and Major Security-Based Swap Participants and Capital Requirements for Broker-Dealers, 77 Fed. Reg. 70213 (November 23, 2012).
[18] 7 U.S.C. § 6s(e)(3)(D).
[19] Lawton was named the Acting Director of the Division of Clearing and Risk in January 2017. [redacted] left the CFTC in late 2016.
[20] *See* 7 U.S.C. § 1a(7).

The Margin Rule applies to covered swap entities ("CSEs"),[21] as defined by the CEA, that are not regulated by the Prudential Regulators.[22] The margin requirements for an uncleared swap agreement depend on the CSE's counterparty. On an uncleared swap with a CFTC-registered Swap Dealer ("SD") or Major Swap Participant ("MSP"), the CSE must post and collect both initial margin and variation margin daily, subject to certain threshold requirements. The same requirements hold for swaps with financial end-users that have "material swaps exposure" ("MSE").[23] For swaps with financial end-users that do not have MSE, CSEs are not required to post or collect initial margin but are required to post and collect daily variation margin.[24]

Amount and Timing of Margin Required

The Margin Rule provides two methods for determining the amount of initial margin required. CSEs can use a standardized table provided in the Margin Rule, or they can calculate initial margin using a margin model meeting certain requirements.[25] Initial margin must be collected and/or posted "on or before the business day after execution,"[26] and thereafter on a daily basis "until such uncleared swap is terminated or expires."[27]

The amount of variation margin to be posted each day depends on changes in the valuation of the uncleared swap.[28] Pricing swap agreements on a daily basis can be difficult, and mark-to-market valuation changes may not be readily available, so the margin rule requires CSEs to calculate variation margin for themselves and each counterparty "using methods, procedures, rules, and inputs that to the maximum extent practicable rely on recently-executed transactions, valuations provided by independent third parties, or other objective criteria."[29] Variation margin

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[21] "Covered swap entity" means a swap dealer or major swap participant for which there is no prudential regulator. 17 C.F.R. § 23.151.
[22] *Id*.
[23] "Financial end user" means a counterparty that is not a swap entity and satisfies one of the twelve factors found in the definitions in 17 C.F.R. § 23.151. "Material swaps exposure" means that an entity and its margin affiliates have an average daily aggregate notional amount of uncleared swaps with all counterparties for June, July, and August of the preceding calendar year that exceeds $8 billion dollars. 17 C.F.R. § 23.151.
[24] CFTC Margin Rule, 81 Fed. Reg. at 649.
[25] The Margin Rule requires that initial margin "be set equal to a model's calculation of the potential future exposure of the uncleared swap consistent with a one-tailed 99 percent confidence level over a 10-day close-out period." CFTC Margin Rule, 81 Fed. Reg. at 653; *see also* 17 C.F.R. § 23.154(b)(2)(i). The rule requires the model to capture all "material risks" that may affect the uncleared swap, including potential non-linear price variables of the swap. 17 C.F.R. § 23.154(b)(2)(ix).
[26] 17 C.F.R. § 23.152.
[27] *Id.*
[28] 17 C.F.R. § 23.155(a).
[29] *Id.* Additionally, each CSE "shall have in place alternative methods for determining the value of an uncleared swap in the event of the unavailability or other failure of any input required to value a swap." 17 C.F.R. § 23.155(a)(2).

calculations must be made on a daily basis,[30] and CSEs must exchange variation margin on or before the business day after a new variation margin obligation is calculated.[31]

The burden of initial and variation margin obligations are lessened somewhat by certain thresholds and netting provisions. Initial margin only needs to be posted or collected when aggregate credit exposure "between a covered swap entity and its margin affiliates on the one hand, and a covered counterparty and its margin affiliates on the other" is equal to or greater than $50 million.[32] Moreover, a transfer of margin with a particular counterparty need only take place on a given day if the amount to be posted or collected is greater than $500,000, based on the aggregate of all initial and variation margin required by the rule.[33] In addition, CSEs may enter into an "eligible master netting agreement" ("EMNA") with each counterparty, allowing them to net initial margin and variation margin (separately)[34] across swaps in the same asset class within their portfolios.[35] The EMNA governs the resolution of transactions in the event of a default.[36]

Eligible Forms and Custodianship of Margin Collateral

Initial margin can be posted using a variety of different financial instruments: cash funds denominated in any specified major currency, debt securities issued or guaranteed by Treasury or another U.S. agency, certain government-sponsored enterprise debt securities, certain foreign government debt, certain corporate debt securities, certain listed equities, and gold.[37] While the agency did decide to include equities in the list, the rule requires a minimum 15 percent haircut on all equities in the S&P 500 and a minimum 25 percent haircut on equities in the S&P 1500 Composite Index but not in the S&P 500 Index.[38]

For variation margin, CSEs trading with each other must use cash, but when trading with financial end users, CSEs can use the same set of eligible collateral allowed for initial margin.[39]

Initial margin posted or collected by a CSE must be held by custodians unaffiliated with the CSE or its counterparty.[40] The custodian is required to act pursuant to a legally binding

[30] 17 C.F.R. § 23.155(a)(1).
[31] 17 C.F.R. § 23.153(a).
[32] 17 C.F.R. §§ 23.151, 23.154.
[33] 17 C.F.R. § 23.152(b)(3).
[34] The Margin Rule does not permit the netting of initial and variation margin together. 17 C.F.R. § 23.152(c)(1).
[35] CSEs may separate netting portfolios under a single EMNA. This allows the counterparties to separate uncleared swaps that are subject to the final rule from swaps that are not. *Id.*
[36] Notably, the rule does not allow the inclusion of "walkaway" clauses intended to permit lower payment in the event of default than otherwise required by the rule. CFTC Margin Rule, 81 Fed. Reg. at 655-656.
[37] 17 C.F.R. § 23.156.
[38] *Id*.
[39] 17 C.F.R. § 23.156(b)(1)(ii).
[40] 17 C.F.R. § § 23.152, 23.157(b); CFTC Margin Rule, 81 Fed. Reg. at 670.

agreement enforceable under the laws of the relevant jurisdiction.[41] The custodial agreement must prohibit rehypothecating, repledging, reusing, or otherwise transferring the collateral to another party.[42]

Inter-affiliate Swaps

The Margin Rule does not require initial margin for swaps between CSEs and affiliates that are swap entities or financial end users ("inter-affiliate swaps") so long as "[t]he swaps are subject to a centralized risk management program that is reasonably designed to monitor and to manage the risks associated with the inter-affiliate swaps," and "[t]he [CSE] exchanges variation margin with the margin affiliate . . . ."[43]

THE MARGIN RULE COST-BENEFIT CONSIDERATION

Law, Policy & Practice

Section 15(a) of the Commodity Exchange Act requires the CFTC to evaluate costs and benefits of a proposed action in light of: (1) protection of market participants and the public; (2) efficiency, competitiveness, and financial integrity of futures markets; (3) price discovery; (4) sound risk management practices; and (5) other public interest considerations.[44]

The Commission has written guidance interpreting the cost-benefit requirement to allow for broad discretion to, among other things, omit quantification of costs, to give greater weight to any of the five enumerated considerations, and to put forward a rule notwithstanding its costs.[45] The Commission's guidance also relies on Executive Order 13563's direction that each federal agency "(1) propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify); [and] (2) develop its regulations in a manner to impose the 'least burden on society.'"[46] The

[41] 17 C.F.R. § 23.157(c)(2).
[42] 17 C.F.R. § 23.157(c)(1).
[43] A prior version of the rule required initial margin for inter-affiliate swaps. The exemption was added in the final rule, along with the two conditions for obtaining the exemption. The two conditions were recommended by public commenters and are similar to conditions that were previously established by the Commission when providing an exemption from the clearing requirement for certain inter-affiliates swaps. 17 C.F.R. §23.159(a)(1); CFTC Margin Rule, 81 Fed. Reg. at 673.
[44] 7 U.S.C. § 19(a)(2).
[45] CFTC issued guidance for proposed and final rules. CFTC, *Guidance on and Template for Presenting Cost-Benefit Analyses for Commission Rulemakings* (September 29, 2010); CFTC, *Staff Guidance on Cost-Benefit Considerations for Final Rulemakings under the Dodd-Frank Act* (May 13, 2011). Both are attached as appendices to the June 2011 OIG Report.
[46] Exec. Order No. 13,563, 76 Fed. Reg. 3821 (January 21, 2011). Exec. Order 13,563 supplements Exec. Order 12,866, 58 Fed. Reg. 51735 (October 4, 1993). These executive orders do not apply to the CFTC.

Commission's written guidance is silent on the statutory proviso that the agency, when issuing orders or adopting a rule or regulation, "endeavor to take the least anticompetitive means of achieving [its] objectives."[47]

In practice, cost-benefit consideration varies from rule to rule. According to one staff member, then-Chairman Massad changed the cost-benefit approach to allow more flexibility for divisions, and cost-benefit consideration has become more of an ad hoc approach.

Cost-Benefit Consideration for the Margin Rule

The CFTC's cost-benefit consideration states that the Margin Rule "should mitigate the overall credit risk in the financial system, reduce the probability of financial contagion, and ultimately reduce systemic risk."[48] The cost-benefit consideration further states that margin serves as "a first line of defense," allowing a CSE to "absorb the losses" from a counterparty default.[49] The cost-benefit consideration also states that margin serves as a risk management tool by limiting the amount of leverage that either counterparty can take,[50] and may incentivize the move to centralized clearing of swaps.[51] These direct effects contribute to reducing "the possibility of a systemic event."[52] And by protecting the financial system, the Margin Rule, in turn, potentially mitigates spillover to the broader economy.

Amount and Quality of Margin Collateral

The Margin Rule requires calculation of initial margin based on a ten-day close-out period because ten days is, according to the cost-benefit consideration, an appropriate period "to ensure that a non-defaulting party has sufficient time to close out and replace its positions in the event of counterparty default."[53] The cost-benefit consideration concedes that the ten-day close-out period may lead to excessive initial margin, but speculates that most of the instruments that can be liquidated in less than ten days are likely being cleared, so the costs associated with excessive margin may be limited.[54]

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[47] 7 U.S.C. § 19(b).
[48] CFTC Margin Rule, 81 Fed. Reg. at 689.
[49] *Id.*
[50] *Id.*
[51] *Id.*
[52] *Id.*
[53] *Id.* at 685.
[54] *Id.* The Commission decided against setting separate close-out periods for different asset classes or instruments because of the operational burden on market participants and the added oversight burden on the Commission. CFTC Margin Rule, 81 Fed. Reg. at 658.

The cost-benefit consideration addresses not only the amount but also the quality of margin collateral. In times of financial stress, lower quality assets tend to be less liquid, potentially making it difficult for non-defaulting entities to use. If only highly liquid collateral were allowed, CSEs would be less likely to incur a loss following default from its counterparty.[55] However, an overly restrictive standard might drain liquidity from the counterparties out of proportion to the risk reduction. The cost-benefit consideration also acknowledges that the initial margin requirement creates a new, added cost to CSEs—the cost of acquiring and maintaining appropriate collateral, including the opportunity cost of foregone higher returns from alternate uses of capital.[56] The cost-benefit consideration suggests the choice of eligible collateral strikes a balance between these concerns.[57]

The one effect of the Margin Rule the CFTC tried to quantify is the aforementioned cost of acquiring and maintaining financial assets for use as initial margin collateral. The cost-benefit consideration took global estimates of total initial margin collateral requirements from two international reports,[58] and then scaled them by an estimate of the CFTC-regulated share of the global uncleared swaps market to obtain a range for the likely total amount of initial margin collateral needed by the swap market participants within the CFTC's jurisdiction.[59] This range was then converted to costs by multiplying three different estimates of the yield differential between higher-yield, riskier assets of a typical portfolio, and the kinds of low-risk, low-yield assets acceptable as margin collateral. The three estimates of the yield differential varied from 25 basis points to 160 basis points.[60] Based on its assessment of accuracy, the cost-benefit consideration puts the cost of the final rule within a range of $290 million to $2.05 billion.[61]

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[55] *Id.* at 686-687.
[56] *Id.* at 682.
[57] The cost of posting initial margin will depend on whether the CSE already owns the requisite margin or needs to raise additional funds to secure the assets. As the costs of funding rises relative to the rate of return on the collateral, the greater the cost of posting collateral. CFTC Margin Rule, 81 Fed. Reg. at 684.
[58] *See* BCBS/IOSCO, *Margin Requirements for Non-Centrally Cleared Derivatives: Second Consultative Document* (Basel, Switzerland: Bank for International Settlements, February 2013); CFTC Margin Rule, 81 Fed. Reg. at 690-691.
[59] The agency first estimated the U.S. share of global uncleared swaps at 57%. Then, using Swap Data Repository ("SDR") data on interest rate swaps, which the agency asserts represents the majority of uncleared swaps' notional value, it calculated a scaling factor of 25% to capture the CFTC-regulated share of the US market. The agency acknowledges its estimates may be over- or under-inclusive, but argues they are likely conservative because they do not apply the $8 billion MSE threshold or exclude swaps with a non-financial end-user counterparty. CFTC Margin Rule, 81 Fed. Reg. at 690-692.
[60] The cost-benefit consideration argues that, due to the idiosyncratic capital structure of CSEs, an expansive opportunity cost estimate is necessary to capture the full-range of potential costs. CFTC Margin Rule, 81 Fed. Reg. at 692.
[61] *Id*. at 691.

The cost-benefit consideration does not provide a quantification of the funding costs associated with variation margin. However, it acknowledges that the variation margin requirement imposes additional costs on CSEs and financial end users, who may have to adjust their portfolios to ensure timely access to eligible variation margin. For CSEs, the cost-benefit consideration asserts that the cash requirement for variation margin "could have minimal impact" because CSEs already use cash to exchange variation margin,[62] and for a CSE that has a "relatively flat swap book,"[63] the cost-benefit consideration expects the cash-only requirement to be small.[64] On the other hand, a number of CSEs will need to "convert non-cash collateral collected from financial end users into cash to post to their swap dealer and major swap participant counterparties."[65] One potential solution, as put forward in the cost-benefit consideration, is for a CSE to use a repurchase agreement to convert the non-cash collateral into cash. However, the cost-benefit consideration notes that, during a financial crisis, repo markets dry up and CSEs may not be able to get access to cash; in order to avert technical insolvency, the agency recommends CSEs secure a committed repo agreement which provides them the right to enter into a repo agreement.[66]

For non-CSE financial end-users, the cost-benefit consideration states that the final rule expanded, in response to public comments,[67] the list of eligible collateral beyond cash, "which may reduce funding costs."[68] The cost-benefit consideration also notes that "the final rule includes a minimum transfer threshold of $500,000, which should mitigate some of the administrative burdens and counter-cyclical effects associated with the daily exchange of variation margin, without resulting in an unacceptable level of uncollateralized credit risk."[69]

Administrative Costs

The cost-benefit consideration discusses a number of administrative cost issues associated with the margin requirements—since the per-entity costs related to complying with the rule will vary depending on the infrastructure, and other difficulties associated with quantifying administrative costs, the agency determined it too difficult to quantify, so provided a

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[62] CFTC Margin Rule, 81 Fed. Reg. at 687.
[63] A "relatively flat book" has few positions or positions that mostly net out.
[64] CFTC Margin Rule, 81 Fed. Reg. at 693.
[65] Because the rule allows for non-cash variation margin collateral with a financial end user, the agency expects potential collateral mismatch in the market. *Id.*
[66] *Id.*
[67] CFTC Margin Rule, 81 Fed. Reg. at 686.
[68] *Id.*
[69] *Id.*

qualitative discussion instead.[70] The cost-benefit consideration notes it expects a number of aspects in the rule to mitigate the administrative cost impact, including minimum thresholds and the expanded list of eligible collateral.[71] The cost-benefit consideration also believes the largely harmonized rules between the Prudential Regulators will potentially lower administrative costs.[72]

The agency is also striving to provide for greater "lead in" times to allow industry more time to construct compliance systems—the agency believes that by giving industry more time to plan buildouts, firms should be able to reduce operational errors and costs.[73] The cost-benefit consideration then goes on to itemize the key documents related to administering the Margin Rule, including: self-disclosure documents, credit support annexes ("CSAs"), and tri-party segregation of margin collateral.[74]

Effects on Liquidity and Hedging

The agency acknowledges that "required margin may reduce the availability of liquid assets for purposes other than posting collateral and therefore affect the ability of CSEs to engage in swaps activities and financial end users to manage or hedge the risks arising from their business activities."[75] The rule tries to mitigate the CSEs costs "with initial margin thresholds, expansion of eligible collateral for variation margin for financial end users, and minimum transfer amount."[76]

The cost-benefit consideration also notes that some market participants may, in response to the costs of the Margin Rule, substitute away from swaps in favor of other financial instruments, including futures and cleared products that require less margin.[77] The cost-benefit treats this as a positive result, but observes that "this may result in basis risk given the standardization of these products."[78]

Netting

The cost-benefit consideration states, "The eligibility criteria for netting are consistent with industry standards currently being used for bank regulatory capital purposes, which should reduce the administrative costs that would be incurred in connection with any renegotiation of

[70] CFTC Margin Rule, 81 Fed. Reg. at 693.
[71] *Id.*
[72] *See* CFTC Margin Rule, 81 Fed. Reg. at 689, 693.
[73] *Id.* at 693.
[74] *Id.*
[75] *Id.* at 689.
[76] *Id.*
[77] CFTC Margin Rule, 81 Fed. Reg. at 689-690.
[78] *Id*. at 689, fn. 398.

the terms of existing netting agreements."[79] The Commission admits that not allowing netting across asset classes increases the initial margin burden on industry but believes this is warranted given cross-asset class correlation break down during times of stress.[80] Additional risk-exposure requirements include maintenance of a robust risk-control process to "re-evaluate, update, and validate" the model to ensure compliance with the Commission's baseline requirements.[81] The cost-benefit consideration acknowledges these measures may result in additional costs to CSEs.[82]

Harmonization

The agency highlights the global nature of the uncleared swaps world and the need to reduce "significant disparities in margin rules" by harmonizing its rule with other domestic and foreign regulators to prevent competitive disadvantages and potential regulatory arbitrage:

> The Commission also notes that the final margin rule, like other requirements under the Dodd-Frank Act, could have a substantial impact on the relative competitive position of market participants operating within the United States and across various jurisdictions. U.S. or foreign firms could be advantaged or disadvantaged depending on how the Commission's margin rule compares with corresponding requirements under Prudential Regulators' margin regime or in other jurisdictions. To mitigate undue competitive disparities, the Commission, in developing the final rule, harmonized the final rule with those of the Prudential Regulators and the BCBS–IOSCO framework.[83]

The cost-benefit consideration states that the Commission found no indication of "material differences in the costs and benefits discussed herein between foreign and cross-border swaps activities of CSEs and financial end users affected by the rule," and as a result the cost-benefit consideration "applies to all swap activities, domestic and cross border, to which the final rule applies."[84] In a footnote, however, it recognizes that, "[a]s foreign jurisdictions put in place their own margin rules in the future, the existence of these rules may affect the costs and benefits of the Commission's rules for foreign CSEs and financial end users."[85]

[79] *Id*. at 686.
[80] *Id*. at 685.
[81] *Id*.
[82] *Id*.
[83] *Id*. at 690.
[84] *Id*. at 682.
[85] *Id*. at 682, fn. 359.

DISCUSSION

In previous OIG reviews of the CFTC's cost-benefit analyses, we opined that OGC takes a narrow view of the legal requirements for cost-benefit consideration, that "Commission staff view section 15(a) compliance to constitute a legal issue more than an economic one," and that such a view does not "enhance the economic analysis."[86] We maintain the view that the CFTC has an inadequate institutional commitment to robust economic and quantitative analysis of its rules, irrespective of whether its cost-benefit consideration satisfies statutory requirements. Thorough and objective cost-benefit analyses of new rules would improve the economy and efficiency of the Commission's regulatory program.[87]

We believe rigorous economic analysis is necessary to produce a substantive and reliable cost-benefit analysis for proposed rules of a financial regulatory agency. This is true even when the CFTC has been commanded by Congress to implement a rule. And it is true even when the CFTC is crafting its rule pursuant to a detailed international framework that the CFTC rulemaking team participated in creating. A substantive analysis and estimation of costs and benefits—both seen and unseen, intended and unintended—educates Congress, the public, market participants, and the agency itself. The CFTC should be institutionally committed to laying forth its analysis and expectations in sufficient detail not only to permit, but to invite, criticism and future review.

In presenting our analysis below, we wish to emphasize that the rulemaking team members and cost-benefit contributors recognized the many issues we raise, but were hampered by significant data limitations and a lack of institutional commitment to the identification and quantification of costs and benefits, thus depriving the Margin Rule of the kind of analysis one might expect from an economic regulatory agency.[88]

Economic Analysis

A thorough consideration of costs and benefits, based on rigorous economic analysis, enables regulators to recognize when markets are operating sub-optimally, to identify the nature of the market failure, to discern what kind of intervention is appropriate, and to evaluate the likely effects of various policy options. A well-done cost-benefit analysis presents, for the benefit of the public, Congress, market participants, and the CFTC itself, evidence and

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[86] April 2011 OIG Report.
[87] OIG has a mandate to detect and prevent waste and abuse, and to recommend policies designed to promote the economy, efficiency, and effectiveness of the CFTC. *See* 5 U.S.C. App. 3 § 2(2).
[88] For further discussion of shortcomings in cost-benefit analysis at financial regulatory agencies, *see* Hester Peirce, *Economic Analysis by Federal Financial Regulators,* 9 George Mason J. L. ECON. & POL'Y. 569 (2013).

discussion of the market failure, the reasoning justifying the regulation, and the likelihood the regulation will benefit the market sufficiently to outweigh the costs imposed on market participants.

The CFTC's published consideration of costs and benefits for the Margin Rule fails to provide such economic analysis. The cost-benefit consideration does not effectively explain the nature of the market failure being addressed by the rule, other than by reference to the financial crisis and the undefined catch-all term "systemic risk."[89] And it is often baldly asserted or merely assumed that the Margin Rule will produce the intended benefits.[90] Meanwhile, discussion of costs is mostly restricted to some immediate practical concerns like the cost of funding margin collateral and some changes made between the proposed rule and the final rule in response to public comments. Other types of compliance costs are elided.[91] Unintended consequences potentially undercutting the systemic benefits of the Rule are mentioned cursorily, if at all. Such an asymmetric treatment of costs and benefits is inappropriate in an objective examination based on rigorous economic thinking. A comparison of the pre- and post-Margin Rule regimes—not to mention other rule variations or policy alternatives—requires symmetric assumptions and analysis to reach reliable conclusions about costs and benefits.[92]

In the subsections that follow, we expand on the above summary criticism via some observations relating to the complexity of financial markets and the workings of the Margin

[89] Nor does it question whether the systemic risks being addressed by the Rule stem from existing regulations, the alteration of which might be more of a salutary change than the addition of further regulations.

[90] For example, the cost-benefit consideration says that "[u]nder the final rule, the market and the public *will* benefit from the required collateralization of uncleared swaps. More specifically, the margin requirements *should* mitigate the overall credit risk in the financial system, reduce the probability of financial contagion, and ultimately reduce systemic risk" (emphasis added). CFTC Margin Rule, 81 Fed. Reg. at 689. Similarly, the cost-benefit consideration provides no support for the scope of the definition of financial end-user "intended to capture those market participants that by the nature and scope of their financial activities present a higher level of risk of default and are integral to the financial system, and thus, pose greater risk to the safety and soundness of their CSE counterparties and the stability of the financial system." *Id.* at 682.

[91] For example, the cost-benefit consideration does not make the kind of compliance estimates like those done for the proposed CFTC Regulation Automated Trading, 81 Fed. Reg. 85334, 85366-80 ("Reg AT"). The Reg AT cost-benefit consideration estimated various compliance costs, such as computer hardware and software, personnel, training and certifications, contract revisions, etc. *Id.* The absence of compliance cost estimates in the Margin Rule cost-benefit consideration is particularly noteworthy in light of reports that market participants were struggling to revise credit support annex ("CSA") agreements ahead of the March 1, 2017, deadline for posting variation margin. *See, e.g.*, Hannah Murphy, *Derivatives industry calls for new trading rules to be delayed*, Financial Times (February 8, 2017) (". . . only a handful of the hundreds of asset managers affected have the right legal paperwork."). The CFTC ultimately granted relief prior to the deadline. Joe Rennison, *US delays derivatives rules to avoid market disruption*, Financial Times (February 14, 2017).

[92] On the importance of symmetric assumptions in analyzing policy regimes, *see* Thomas W. Hazlett, David Porter, Vernon Smith, *Radio Spectrum and the Disruptive Clarity of Ronald Coase*, 54 J. L. & ECON. S126, S156 ("What Coase fundamentally contributed was a symmetric analysis of property regime choices, explaining that the costs of the price system were real, but so were the costs of any alternative . . . . Coase argued for analytical symmetry on logical grounds."), *discussing* R. H. Coase, *The Problem of Social Cost,* 3 J. L. & Econ. 1 (1960) *and* R. H. Coase, *The Federal Communications Commission*, 2 J. L. & ECON. 1 (1959).

Rule. Our intent is not to pass judgment on the wisdom of the Margin Rule itself, but to emphasize how the Rule, and the public's understanding of the Rule, might have profited from a thorough cost-benefit analysis grounded in economics.

Systemic Risk

A central goal of Dodd-Frank is to reduce systemic risk, and the Margin Rule is intended to further that goal by reducing counterparty risk in uncleared swap agreements and deleveraging swap dealers.[93] The cost-benefit consideration asserts or assumes that the Margin Rule will substantially reduce systemic risk, but it does not analyze the general claim with any skepticism or analytical rigor, nor does it attempt to quantify the size of the systemic risk reduction.[94] Numerous decisions made in crafting the Rule, whether imposing costly mandates on market participants, reducing implementation costs, exempting certain institutions from various provisions, or setting particular thresholds and time frames, were made with an eye toward mitigating systemic risk. But there is no actual analysis of any of these decisions; the CFTC does not "show its work."

There is good reason to be skeptical of unexamined assertions that the benefits of the Margin Rule will be as pronounced as necessary to justify the costs imposed on the market. While we do not doubt that margin can act as a prophylactic against *certain sources* of systemic risk, it is conceivable that the Margin Rule will not have nearly as great a risk-reducing effect as expected, or will impose greater costs than anticipated, due to the complexity of financial markets and the behavioral responses of market participants. Moreover, it is possible that the Margin Rule will have unintended consequences that exacerbate or create *other sources* of systemic risk.

Correlatively, a thorough and convincing cost-benefit analysis might show that the Margin Rule does not go far enough. Perhaps, for example, it would support the view that inter-affiliate swaps should not have been exempted from initial margin requirements.[95] In July of 2015, rulemaking team leader John Lawton and team member [redacted] wrote a memo to then CFTC Chairman Massad arguing that the omission of initial margin requirements for inter-

[93] CFTC Margin Rule, 81 Fed. Reg. at 681.
[94] E.g., the cost-benefit consideration states, "The financial crisis of 2008 has had profound and long-lasting adverse effects on the economy, and therefore reducing the potential for another systemic event provides significant, if unquantifiable, benefits." *Id*.
[95] The proposed rule "would have required two-way initial margin and variation margin for swaps between CSEs and affiliates that were swap entities or financial end users." CFTC Margin Rule, 81 Fed. Reg. at 673. Staff indicated then-Chairman Massad was responsible for the decision to make the change exempting inter-affiliate swaps.

affiliate swaps undermined the rule's efficacy.[96] Their view did not prevail, but the cost-benefit consideration provides no analysis or justification, just the conclusory statement:

> The Commission believes that the Prudential Regulators' approach, which requires swap dealers subject to the Prudential Regulators' margin rules to collect only for initial margin, would be too costly to the extent that the subject inter-affiliate trade is viewed as shifting risks within the consolidated group.[97]

The lack of analysis seems inexplicable in light of staff's view of the counterparty risk represented by inter-affiliate swaps. The memo to the Chairman states:

> Given that inter-affiliate trades equal approximately 50% of all uncleared swaps at the large dealers, it is possible that for many CSEs, the largest single counterparty is an affiliate. In these cases, measured in terms of magnitude, if not likelihood, the largest counterparty risk such CSEs face is with an affiliate.[98]

The lack of analysis also seems strange given the consensus on the importance of rule harmonization and the statutory requirement for cooperation among the financial regulatory agencies.[99]

Market Liquidity

A possible effect of imposing margin requirements on uncleared swap deals is a reduction in market liquidity.[100] Because of the new margin costs associated with entering into an uncleared swap agreement, firms will be willing to engage in fewer such agreements. This is, to some extent, an *intended* effect[101] that likely results in a less liquid market with fewer available counterparties. Less liquidity and fewer available counterparties can reduce the ability of firms to hedge risk, increasing the cost of swap deals, and reducing efficiency in the market for uncleared swaps.[102] These costs are explored in the cost-benefit consideration only cursorily.

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[96] Internal Memorandum from John Lawton and [redacted] to Chairman Massad, *Uncleared Margin Rules – Inter-affiliate Swaps* (July 24, 2015) (on file with OIG).
[97] *Id*.
[98] *Id*.
[99] The internal memo to the Chairman highlighted the fact that the Prudential Regulators were not exempting inter-affiliate swaps: "The Act imposes equal responsibility on the Commission and the Prudential Regulators to use margin requirements to ensure the safety and soundness of SDs and MSPs. But differing treatment of inter-affiliate swaps would make SDs subject to the Prudential Regulators safer than SDs subject to the CFTC. The Act requires that the rules of the CFTC and the Prudential Regulators be comparable to the maximum extent practicable. But differing treatment of inter-affiliate swaps could result in different requirements for 50% of the market." *Id*.
[100] The Commission implicitly acknowledges the rule may constrain liquidity by stating the eligible collateral rules may be overly restrictive. CFTC Margin Rule, 81 Fed. Reg. at 686-687.
[101] "Margin rules for uncleared swaps are designed to . . . limit the amount of leverage that can be undertaken by CSEs (and other market participants, in the aggregate). CFTC Margin Rule, 81 Fed. Reg. at 681.
[102] Notably, it affects one of the 15(a) factors—price discovery.

Moreover, mitigation of risk in the uncleared swap market may simply reflect the transfer of risk to other areas of the marketplace. Such effects can increase systemic risk elsewhere, perhaps hidden from regulators.

The rulemaking team and cost-benefit contributors are, of course, aware of such possibilities. But the cost-benefit consideration does not give due consideration to the size of the imposed costs from reduced market liquidity; nor does it address the possibility that the assumed reduction in counterparty risk from uncleared swaps might fail to reduce overall systemic risk, either because the rule transforms counterparty risk into liquidity risk or because the rule spreads systemic risk elsewhere. A thorough cost-benefit analysis cannot pass over the indirect costs or treat the presumed reduction of systemic risk in the target market as a presumptive reduction of systemic risk *in toto*.

Procyclicality

Margin requirements can be "procyclical" in nature in the sense that margin payments may be most needed, and more difficult to make, when the safe assets accepted as margin collateral are costly to obtain.[103] Fiscal crises can create significant volatility in asset prices. Tightening credit markets along with unanticipated increases in margin requirements can make it progressively more difficult to obtain margin collateral.[104] "[O]pportunity costs per dollar of initial margin tend to grow in crisis periods, as risk premia increase yields on risky assets and a flight to quality increases demand for—and hence the price of—risk free assets eligible as collateral, depressing their yields."[105] Traders respond to increases in margin by reducing their positions, and the loss of trades can exacerbate price volatility, further exacerbating the procylical issues.[106] Consequently, in a period of elevated financial stress, margin requirements can act as an accelerator of systemic risk rather than dampening the financial stress effects.[107]

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[103] *See* ISDA, *Initial Margin for Non-Centrally Cleared Swaps: Understanding the Systemic Implications* (November 2012). *See* Craig Pirrong, *Clearing and Collateral Mandates: A New Liquidity Trap?*, 24 J. APPLIED CORP. FIN. 67 (Winter 2012).

[104] *See* NERA Economic Consulting, *Cost-Benefit Analysis of the CFTC's Proposed Margin Requirements for Uncleared Swaps* (December 2, 2014), http://www.nera.com/publications/archive/2014/cost-benefit-analysis-of-the-cftc-s-proposed-margin-requirements.html.

[105] *Id*.

[106] *Id*.

[107] The problem of market illiquidity in times of financial stress is of particular importance for CSEs, who may need to convert non-cash collateral collected from financial end-users into cash to post to swap dealer counterparties. Ordinarily, CSEs might make use of repurchase agreements, or "repo." But "[i]n times of severe financial stress, the repo market may not provide access to market participants. If this happens, a CSE may not be able to turn noncash collateral into cash which might cause technical defaults." CFTC Margin Rule, 81 Fed. Reg. at 693. Rather than providing substantive analysis of the potentially negative systemic effects, the cost-benefit consideration brushes this concern aside: "In order to avoid technical defaults, a CSE may elect to pay for a committed repo agreement that

Put differently, the margin requirements, by attempting to reduce counterparty risk, may potentially create new and unforeseen liquidity risks in the marketplace.[108]

The cost-benefit consideration does not directly discuss the potential procyclical effects of the Margin Rule either as a potential cost or as a possible counterargument to the claimed benefit of reduced systemic risk. In interviews, some members of staff acknowledged that the Margin Rule has these procyclical effects, that such effects are an unavoidable consequence due to the nature of margin, and that some firms may be pushed into default and bankruptcy in certain circumstances where the firm would have survived in the absence of the Rule. But staff maintained that, although certain individual firms may be weaker in times of high financial volatility, the system as a whole will be stronger.

Homogenized Risk

The Margin Rule provides two methods for determining the amount of initial margin to be posted. One method is by reference to a table in the rule. The other method is via statistical models having certain attributes specified by the rule.[109]

Because initial margin is set according to a forward-looking and probabilistic calculation, based on the costs incurred in the event of a counterparty default as well as potential future volatility, specifying regulatory parameters for calculating initial margin is both a theoretical and practical challenge. Regulatory definition and approval of acceptable models may be unavoidable, if initial margin is to be mandated, and yet such definitional detail can potentially lead to homogeneity in the quality and scope of industry risk-modeling. Put differently, an entire industry may be incentivized to treat (or ignore) the same sources of risk in the same general manner. Such homogeneity can, in turn, *increase* systemic risk in the event that a risk materializes that was systematically ignored or underestimated.

As it turns out, industry did pursue the development of, and has now coalesced around, a standardized model developed by the International Swaps and Derivatives Association ("ISDA", "the ISDA model") for calculating margin,[110] though many dealers have more sophisticated models for internal risk management. A standardized model does have significant benefits for market participants. If each firm were to use its own model, there might be frequent disputes over initial margin amounts, particularly in cross-border swap agreements governed by multiple

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gives them the right to enter into a repurchase agreement for a fee at a predetermined repo rate (presumably at a rate significantly above the normal repo rate)." *Id.*

[108] *See* Craig Pirrong, *Clearing and Collateral Mandates: A New Liquidity Trap?*, 24 J. APPLIED CORP. FIN. 67 (Winter 2012).

[109] CFTC Margin Rule, 81 Fed. Reg. at 686.

[110] ISDA, *SIMM: From Principles to Model Specification* (March 3, 2016**).**

jurisdictions; or there might be a "race to the bottom," where firms undercut their competitors' initial margin demands to create a cost advantage. A standard model also makes it easier for smaller firms to forecast required margin, and facilitates model approval by regulators. ISDA and CFTC staff believe that a standard model will enable firms to accurately forecast liquidity needs from margin calls, efficiently resolve disputes between parties, and streamline government compliance issues.

But staff acknowledge there is potential for the model to ignore or underestimate particular types or sources of risk.[111] A direct result is that the entire industry may face insufficient initial margin in the event of defaults caused by the materialization of underpriced risks. An additional concern is that the reduced cost of certain swap deals relative to others, due to lower initial margin requirements per a model underpricing certain risk factors, might incentivize an industry-wide move toward those very swap deals whose risks are underpriced, i.e., a move toward greater assumption of risks the industry is blind to.[112] This can potentially increase systemic risk.[113]

Reliance on a single base model geared toward a single regulatory specification may be of further concern because it can mislead *regulators* as well as market participants. This may be especially true here because the CFTC has essentially outsourced model approval and oversight to the NFA.[114] CFTC staff are hopeful that backtesting will capture the majority of issues before they become problematic, and oversight of the simulated initial margin model does, in theory, allow CFTC or NFA staff to require add-ons and/or multipliers that increase the required initial margin above what the model calculates. But it may be too rosy an assumption that future oversight will be so perceptive and proactive.[115] Among other challenges, staff indicate that the CFTC's data limitations will severely hinder its ability to help monitor the model.

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[111] We have already heard from a risk analyst in DCR that there is evidence of the initial margin model undervaluing certain classes of swaps and therefore producing lower margin calculations.

[112] For example, assume the simulated initial margin model undervalues the relative risk factors for a particular asset class. The model would require less initial margin on agreements involving that asset class, reducing the total cost of entering into an agreement relative to those involving properly risk-priced asset classes. Market participants would be incentivized by the lower relative cost to engage in transactions involving that asset class.

[113] Some observers argue that an important factor in the 2007-08 financial crisis was Basel risk-weights making the relative price of mortgage-backed securities cheaper relative to other securities. Banks' internal models showed low probabilities of default due to incorrect risk-valuations of mortgage backed securities. *See* Jeffrey Friedman, *A Perfect Storm of Ignorance*, Cato Policy Report Vol. XXXII No. 1 (January/February 2010), https://object.cato.org/sites/cato.org/files/serials/files/policy-report/2012/2/cpr32n1-1.pdf.

[114] *See, e.g.*, National Futures Association, *Notice to members* (March 10, 2016), https://www.nfa.futures.org/news/newsNotice.asp?ArticleID=4705.

[115] We discuss time inconsistency issues further below in the subsection "Time Inconsistency and Imperfect Implementation."

Regardless, the discussion of the rule and the cost-benefit consideration do not address the potential perils of industry reliance on a single baseline model or of mandating models that assume future financial crises exhibit risk profiles similar to past crises. To the extent currently used models depend on the risk profiles of recent crises and future crises being substantially the same, the Margin Rule's mandate may, by "fighting the last war," leave the agency blind to the next one.[116]

Hedging, Risk Compensation & Collateral Transformation

One consequence of imposing margin requirements is that firms must hold more margin-eligible assets than they would otherwise maintain. This is acknowledged by the Margin Rule's cost-benefit consideration, and indeed motivates the calculation of the cost of collateral maintenance.[117] But two implications stand out that remain relatively unexamined in the cost-benefit consideration.

One implication, acknowledged in interviews with staff, is that the cost of margin may incentivize firms to alter their behavior in ways that undermine the systemic benefits of the rule.[118] Firms may move away from uncleared swaps into other financial instruments with lower costs.[119] The cost-benefit consideration appears to treat this as a mitigation of the cost of the Margin Rule,[120] but if the alternative financial instruments provide an inferior hedge of risk, the behavioral response may undermine the predicted systemic benefits of the rule. Or, firms may compensate for the lower returns on the margin collateral they hold by moving to higher-yield (but riskier) assets, elsewhere in their portfolio, a practice known as "risk compensation."[121] Firms responding to the margin requirements with potentially unobserved endogenous alterations to their capital structure may reverse the assumed leverage-reducing effects of the Margin Rule, undermining the asserted systemic benefits of the rule.

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[116] *See, e.g.*, Jeremy C. Stein, *Overheating in Credit Markets: Origins, Measurement, and Policy Responses*, speech at the "Restoring Household Financial Stability after the Great Recession: Why Household Balance Sheets Matter" research symposium (Feb. 7, 2013), https://www.federalreserve.gov/newsevents/speech/stein20130207a.htm ("One is naturally inclined to look at data on short-term debt like repo, given its prominence in the recent crisis. But precisely because it is being more closely monitored, there is the risk that next time around, the short-term claims may take another form.").
[117] CFTC Margin Rule, 81 Fed. Reg. at 683-684.
[118] A behavioral response to a regulation that diminishes the intended benefits of the regulation is sometimes called the Peltzman Effect. *See* Sam Peltzman, *The Effects of Automobile Safety Regulation*, 83 J. POL. ECON. 677 (1975).
[119] We address some possible consequences below in the subsection "Incentivizing Cleared Products."
[120] CFTC Margin Rule, 81 Fed. Reg. at 684, 689-690.
[121] *See* Craig Pirrong, *Clearing and Collateral Mandates: A New Liquidity Trap?*, 24 J. APPLIED CORP. FIN. 67 (Winter 2012). ("Reducing leverage in certain trades does not necessarily reduce the total amount of systemically risky leverage in the system due to the ability of market participants to substitute alternative forms of leverage for that squeezed out of derivatives trade.").

The other related implication is that firms need to hold more pledgeable, low-yield financial instruments than they otherwise would, and to do so may involve the exchange of riskier assets for safer ones acceptable as margin collateral.[122] This is called "collateral transformation."[123] We have already discussed how, in times of severe stress, market participants may not have access to liquid markets to achieve their funding needs, but an additional point here is that the collateral transformation involved in financing margin payments has the potential to spread risk around the financial system in unexpected ways.[124] In times of stress, the systemic effects of collateral transformation may be as problematic as if the riskier assets had been used as margin collateral with the counterparty in the first place. Indeed, a Federal Reserve Board governor noted a few years ago that collateral transformation "is exactly the kind of activity where new regulation could create the potential for rapid growth and where we therefore need to be especially watchful."[125]

The cost-benefit consideration does not seriously engage with these potential unintended consequences of the Margin Rule.

Redistribution of Default Risk

The cost-benefit consideration states that margin reduces counterparty risk by providing security to the non-defaulting party.[126] This seems straightforward—the non-defaulting party's otherwise unsecured claim to the benefits of the swap agreement are in effect converted to a secured claim, i.e., secured by the posted margin collateral. But that claim on a subset of the defaulting counterparty's assets *a fortiori* leaves fewer assets for other creditors of the defaulting firm.[127] Thus, the Margin Rule may, to some extent, merely transfer credit risk to other creditors by re-shuffling the order of compensation in the event of a firm bankruptcy. Whether or not this results in a net reduction in systemic risk in the financial system as a whole, as opposed to the uncleared swap market standing alone, is an issue not addressed by the cost-benefit calculation.

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[122] "In this case [when a dealer needs to convert non-cash collaterals collected from financial end users into cash to post variation margin], a CSE may use a repurchase agreement to turn non-cash collaterals into cash." CFTC Margin Rule, 81 Fed. Reg. at 693.
[123] *See, e.g.*, Tracy Alloway, *Wall Street's Latest Idea*, Financial Times (March 4, 2014), https://www.ft.com/content/409a3172-7203-11e2-886e-00144feab49a.
[124] A salient example is the story of repo agreements involving mortgage-backed securities and credit default obligations. Gary B. Gorton and Andrew Metrick, *Securitized Banking and the Run on Repo*, 104 J. FIN. ECON. 425 (2012).
[125] Jeremy C. Stein, *Overheating in Credit Markets: Origins, Measurement, and Policy Responses*, speech at the "Restoring Household Financial Stability after the Great Recession: Why Household Balance Sheets Matter" research symposium (Feb. 7, 2013), https://www.federalreserve.gov/newsevents/speech/stein20130207a.htm.
[126] CFTC Margin Rule, 81 Fed. Reg. at 681.
[127] *See* Craig Pirrong, *Clearing and Collateral Mandates: A New Liquidity Trap?*, 24 J. APPLIED CORP. FIN. 67 (Winter 2012).

Incentivizing Cleared Products

The international regulatory consensus stated that one reason to impose margin requirements on uncleared swaps is to incentivize a move toward central clearing.[128] CFTC staff confirmed in interviews that that was one purpose of the Margin Rule. The cost-benefit consideration says that the Margin Rule "may" incentivize a move to cleared swaps.[129] Although there are many benefits of central clearing, we note two concerns underdeveloped by the cost-benefit consideration.

First, standardized swaps may not provide as efficient a hedge as an OTC swap tailored to a firm's idiosyncratic risk profile. Standardized products might leave some residual, or "basis," risk unhedged.[130] Of course, a firm could then enter into a separate OTC swap to cover this residual risk, what some call a "differential swap" or "basis swap," so *perhaps* there would be minimal effect on overall hedging by firms. But that doesn't mean there are no costs or unintended consequences associated with incentivizing cleared over uncleared products. Economists we spoke with disagreed markedly over how much systemic risk would be posed by the residual risk in differential swaps, and consequently over whether margin requirements are needed for them.

Second, although clearinghouses provide important benefits—e.g., simplifying the web of financial dependencies, facilitating netting and other operational efficiencies, acting as a guarantor of trades, reducing counterparty and liquidity risk,[131] reducing settlement costs, etc.—pushing more swaps into central clearing has significant systemic implications. In particular, central clearing "may also create a network of exposures that is more vulnerable to a single point

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[128] BCBS/IOSCO, *Margin requirements for non-centrally cleared derivatives* (March 2015), at 3, http://www.bis.org/bcbs/publ/d317.pdf. The international framework and the agency acknowledge that only standardized derivatives are suitable for central clearing, leaving a substantial number of non-standardized swaps in the uncleared world.

[129] CFTC Margin Rule, 81 Fed. Reg. at 689. As the Margin Rule notes, however, "it may not be the case that the regulatory minimum required initial margin on an uncleared swap will always be larger than the initial margin required on any related cleared swap as margining practices vary among DCOs." CFTC Margin Rule, 81 Fed. Reg. at 656; *see also* Samim Ghamami and Paul Glasserman, *Does OTC Derivatives Reform Incentivize Central Clearing*?, Columbia Business School Research Paper No. 16-53 (July 26, 2016) (concluding that OTC reforms did not create a cost incentive in favor of central clearing), https://www.financialresearch.gov/working-papers/2016/07/26/does-otc-derivates-reform-incentivize-central-clearing/.

[130] RICHARD HECKINGER, IVANA RUFFINI, KIRSTIN WELLS, UNDERSTANDING DERIVATIVES: MARKETS AND INFRASTRUCTURE 27-38 (2014). A footnote in the cost-benefit consideration recognizes that "this may result in basis risk given the standardization of these products," but no analysis follows. CFTC Margin Rule, 81 Fed. Reg. at 689, fn. 398.

[131] *But see* Darrell Duffie and Haoxiang Zhu, *Does a Central Clearing Counterparty Reduce Counterparty Risk*?, Rock Center for Corporate Governance at Stanford University Working Paper No. 46; Stanford University Graduate School of Business Research Paper No. 2022 (April 28, 2011), https://ssrn.com/abstract=1348343.

of failure."[132] As Ben Bernanke has stated, "[T]he flip side of the centralization of clearing and settlement activities in clearinghouses is the concentration of substantial financial and operational risk in a small number of organizations, a development with potentially important systemic implications."[133] Some commentators have suggested that, with the reliance on central counterparties ("CCPs"), we are replacing systemic risk from "too-big-to-fail" banks with systemic risk from "too-important-to-fail" CCPs.[134]

At a minimum, the cost-benefit consideration should acknowledge the possible unintended consequences of incentivizing a move to cleared products, including any moral hazard and adverse selection problems that may arise, particularly from the prospect of government bailouts of CCPs in a financial crisis.[135]

Interaction Effects

There may be important but unconsidered and unintended consequences of the Margin Rule due to the fact that market participants must comply with numerous other laws, regulations, orders of the CFTC and other domestic regulators, and of regulators in foreign jurisdictions. A reliable cost-benefit analysis should explore the possibility that such interaction effects between the Margin Rule and other legal authorities may augment the costs faced by market participants and diminish the risk-mitigating benefits of the rule.

One obvious source of potential interaction effects is imperfect international harmonization of margin rules.[136] Minor-seeming disharmonies can impose unexpected costs on

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[132] Samim Ghamami and Paul Glasserman, *Does OTC Derivatives Reform Incentivize Central Clearing*? Columbia Business School Research Paper No. 16-53 (July 26, 2016), https://www.financialresearch.gov/working-papers/2016/07/26/does-otc-derivates-reform-incentivize-central-clearing/. *See also* J. L. Yellen, *Interconnectedness and Systemic Risk: Lessons from the Financial Crisis and Policy Implications*, remarks at the American Economic Association/American Finance Association Joint Luncheon (San Diego, California, 2013), https://www.federalreserve.gov/newsevents/speech/yellen20130104a.htm.

[133] Chairman Ben S. Bernanke, *Clearinghouses, Financial Stability, and Financial reform*, speech at the 2011 Financial Markets Conference (April 4, 2011), https://www.federalreserve.gov/newsevents/speech/bernanke20110404a.htm. An International Monetary Fund paper also concluded measures of systemic risk may potentially increase if large CCPs only clear certain standardized products, negatively affecting the net exposure they face. For example, if a firm has an "in the money" standardized contract and an "out of the money" non-standardized contract, the two positions offset one another if they are both on the firm's books; however, the netting between the two contracts cannot take place if one of the contracts is sent to a CCP. Manmohan Singh, *Collateral, Netting and Systemic Risk in the OTC Derivatives Market*, IMF Working Paper No. 10/99 (April 2010), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1590712.

[134] *See, e.g.*, Froukelien Wendt, *Central counterparties: addressing their too important to fail nature*, 4(1) J. FIN. MKT. INFRASTRUCTURES 59-84 (2005).

[135] *See* Chairman Ben S. Bernanke, *Clearinghouses, Financial Stability, and Financial Reform*, speech given at the 2011 Financial Markets Conference (April 4, 2011), https://www.federalreserve.gov/newsevents/speech/bernanke20110404a.htm.

[136] As noted previously, the cost-benefit consideration found no "material differences in the costs and benefits discussed herein between foreign and cross-border swaps activities of CSEs and financial end users affected by the

firms.[137] They can also undermine protections against systemic risk. When the Margin Rule was finalized in December 2015, then-Chairman Massad said:

> [W]e must make sure that inter-affiliate transactions are not used as a loophole or as a means to escape the obligation to collect margin from third parties. This could occur, for example, if an affiliate in a jurisdiction that does not have comparable margin requirements enters into a swap with a third party without collecting margin, and then enters into an affiliate swap to transfer that risk. Our rule imposes a strong anti-evasion standard.[138]

The concern was that unmargined risk from a swap trade in a foreign jurisdiction involving a U.S. entity's foreign affiliate could be imported into the U.S. via an unmargined inter-affiliate swap with a domestic U.S. affiliate. In May 2016, the CFTC finalized the Cross-Border Rule,[139] which creates a regime for how the Margin Rule should apply to cross-border swap trades and, in particular, the circumstances in which compliance with a foreign jurisdiction's margin requirements can substitute for compliance with the CFTC's requirements in cross-border trades. The benefits of the domestic Margin Rule depend on the vitality of "a strong anti-evasion standard," and in particular on the Cross-Border Rule and the comparability determinations that will be made pursuant to it. We discuss this topic further in the next subsection.

Other potential sources of interaction effects include the policy choices of other regulatory agencies. In our discussion with CFTC staff, some dismissed procyclicality issues by asserting that liquidity crunches are properly dealt with by the Federal Reserve. An OCE economist who worked on the cost-benefit consideration, for example, stated that he was told not to include procyclicality concerns in the cost-benefit consideration, that the Margin Rule's main objective is to mitigate counterparty risk and any potential monetary issues in a crisis are not a CFTC issue. While it is true that the Fed is responsible for liquidity injections when needed, it is nevertheless inappropriate to dismiss the increased procyclical effects of margin by assuming that the Fed will conduct policy optimally. Some commentators argue that the Fed made crucial

rule," CFTC Margin Rule, 81 Fed. Reg. at 682, but noted that "[a]s foreign jurisdictions put in place their own margin rules in the future, the existence of these rules may affect the costs and benefits of the Commission's rules for foreign CSEs and financial end users." *Id.* at 682, fn. 359.

[137] Some market participants complain that a disparity in the timing requirement for collateral posting between the U.S. (T+1) and Europe (T+2) can result in additional funding costs. *See* Lukas Becker, *Margin rule mismatch spawns new VM funding cost for buy side*, Risk.net (March 29, 2017), https://www.risk.net/derivatives/4507761/margin-rule-mismatch-spawns-new-vm-funding-cost-for-buy-side.

[138] Chairman Timothy Massad, *Statement of Chairman Timothy Massad, Final Rule on Margin for Uncleared Swaps*, U.S. CFTC Speeches & Testimony (December 16, 2015), http://www.cftc.gov/PressRoom/SpeechesTestimony/massadstatement121615d.

[139] Margin Requirements for Uncleared Swaps for Swap Dealers and Major Swap Participants—Cross Border Application of the Margin Requirements, 81 Fed. Reg. 34818 (May 31, 2016).

policy mistakes in 2008 that exacerbated the financial crisis and deepened the recession.[140] Procyclical effects of margin may magnify a policy error by the Fed in a time of crisis.

These are just two of many potential interaction effects. The cost-benefit consideration recognizes the possibility of regulatory arbitrage and stresses the need for tight accordance with Prudential Regulators' rules as well as with international regulators' regimes. Yet it does not elaborate on the likely effects of the dissonant treatment of inter-affiliate margin by the CFTC on the one hand and the Prudential Regulators and certain foreign regulators on the other. Nor does the cost-benefit consideration assess how deviations from the established norms of the international framework, inconsistency in cross-border application of the standards created by the Margin Rule, and interaction with the multitude of other laws and regulations on the books will affect the asserted systemic risk-mitigating benefits of the rule.

Time Inconsistency and Imperfect Implementation

A rule is only as good as its implementation and enforcement, and the consideration of costs and benefits is only as good as the accuracy of its assumptions about future implementation and enforcement. The CFTC will make numerous post-Margin Rule decisions that will affect the operation of the rule. If future decision-makers within the CFTC have opinions regarding the proper application of the Margin Rule that differ from what was assumed in the drafting of the rule and in the cost-benefit consideration, the costs and benefits of the rule may be dramatically different from what was originally expected. This is an example of what is called "time inconsistency."[141]

This is not merely an abstract point—decisions that affect the underlying cost-benefit analysis and efficacy of the Rule have already come up in the context of a cross-border application of the Margin Rule. As noted in the previous section, when the Margin Rule was passed, Chairman Massad asserted that the Margin Rule "imposes a strong anti-evasion standard" ensuring that "inter-affiliate transactions are not used as a loophole or as a means to escape the obligation to collect margin from third parties." But less than a year later, several members of the Margin Rule rulemaking team, among others at the CFTC, were questioning whether that "strong anti-evasion standard" had survived, in light of the Commission's Japanese

[140] *See, e.g.*, Scott Sumner, *The Fed and the Great Recession*, Foreign Affairs (May/June 2016); David Beckworth and Ramesh Ponnuru, *Subprime Reasoning on Housing*, The New York Times (Jan. 27, 2016); Matthew O'Brien, *How the Fed Let the World Blow Up in 2008*, The Atlantic (Feb. 26, 2014); Binyamin Applebaum, *Fed Misread Crisis in 2008, Records Show*, The New York Times (Feb. 21, 2014).

[141] Time inconsistency refers to situations where a decision-maker has different preferences or faces different incentives regarding the making of a commitment at one time and the keeping of that commitment at some time in the future, leading to inconsistent behavior. *See* Finn E. Kydland, Edward C. Prescott, *Rules Rather than Discretion: The Inconsistency of Optimal Plans*, J. POL. ECON. 85(3):473-492 (June 1977).

comparability determination of September 2016. That determination found Japan's margin regime "comparable" on 9 out of 10 factors.[142] But several Margin Rule team members[143] believed strongly that the determination was wrong on several accounts, that it was foreordained, that the supporting analysis made factual, analytical, and interpretive errors,[144] and that the determination "leaves a big hole" in the Margin Rule, not only putting domestic U.S. firms at a competitive disadvantage but more importantly enabling risk to be imported into the U.S. financial system via the precise "loophole" the Chairman warned against.[145]

Though we express no judgment on the substantive correctness of the Commission's Japanese comparability determination, our review certainly suggests that the process for making the comparability determination involved a level of scrutiny inconsistent with what was anticipated by the rulemaking team and cost-benefit consideration when the rule was written.[146]

A careful cost-benefit consideration should take into account such time inconsistency and other sources of uncertainty about future implementation, such as interpretive ambiguity[147] and

[142] CFTC, Comparability Determination for Japan: Margin Requirements for Uncleared Swaps for Swap Dealers and Major Swap Participants, 81 Fed. Reg. 63376-95 (September 15, 2016). "Japan does not require collection or posting of initial or variation margin between consolidated affiliates. The Commission's rules require collection and posting of variation margin and, in some cases, collection of initial margin between consolidated affiliates." CFTC Fact Sheet, *Comparability Determination for Japan Uncleared Swap Margin Rules for Substituted Compliance Purposes*, (September 8, 2016).
[143] We asked each member of the rulemaking team for their opinion on the outcome of the Japanese determination. No member of the team who expressed an opinion to us supports the determination.
[144] Rulemaking team members who object to the comparability determination argue variously that Japan's treatment of non-affiliated third-party custodianship, timing of settlement, and non-netting and non-segregation jurisdictions should have resulted in the Japanese rule being found not comparable in more areas. We additionally note that Commissioner Bowen dissented from the Commission's comparability determination. Commissioner Sharon Y. Bowen, *Dissenting Statement Re: Comparability Determination for Japan: Margin Requirement for Uncleared Swaps for Swap Dealers and Major Swap Participants* (September 8, 2016).
[145] One rulemaking team member wrote in an email at the time of the Japanese comparability determination that "it would lead to a significant loophole, as most consolidated financial groups would book their swaps with counterparties in non-netting and non-segregation jurisdiction[s] (e.g., China) to their Japanese affiliate." The implication is that, because of the comparability determination, a subsequent swap between a U.S. CSE and its affiliate in Japan would not require initial margin and so the unmargined counterparty risk from the original swap would effectively be imported into the U.S. financial system.
[146] The most perplexing of the peculiar facts surrounding the process for the comparability determination was the lack of inclusion of the rulemaking team, all of whom were still at the CFTC.
[147] On the eve of the public hearing and final vote on the CFTC's Japanese comparability determination, the Office of General Counsel disagreed with drafted statements the Chairman intended to make at the public hearing regarding the operation of the Margin Rule and Cross-Border Rule in light of the comparability determination. If the Chairman and the author of the comparability determination can have an understanding of the rules that differs markedly from that of the Office of General Counsel, it seems likely there will be future interpretive disagreements among market participants seeking to comply with the rules and regulators seeking to enforce the rules.

principal-agent interest divergence.[148] Future implementation will be imperfect, potentially affecting costs and undermining asserted benefits.

The foregoing subsections provide a sampling of issues that make regulatory activity more complicated and far less straightforward than the cost-benefit consideration presents it to be. While we do not venture a guess as to what a robust economic analysis would conclude about the relative costs and benefits of the Margin Rule, we do believe such an analysis is vital when justifying the rule to the public, the marketplace, and Congress. In the next section, we turn to the inadequacy of the CFTC's data infrastructure, which further exacerbates the ability of the CFTC to perform a rigorous economic treatment of costs and benefits.

Data & Quantitative Analysis

The financial system is highly complex, and its daily operations produce large amounts of information. The CFTC would undoubtedly benefit from using quantitative analysis in support of its rulemaking and cost-benefit efforts. But in the absence of transparent, reliable, and readily available data, quantitative analysis has no purchase—estimating and weighing the costs and benefits of a proposed policy change becomes a wholly qualitative endeavor. Without a baseline understanding of pre-change institutions and activities, post-change measurement of the actual policy effects is likewise difficult.[149] Furthermore, where systemic risk reduction relies not simply on the changes in market behavior induced by a rule but also on ongoing regulatory oversight by the CFTC, inadequate data can undermine the oversight task and cripple the entire regime.

Our interviews of CFTC staff make clear that a lack of adequate swaps data frustrated attempts to understand and quantify the economic consequences and effectiveness of the Margin Rule and its possible alternatives. In numerous interviews, members of staff lamented the low quality and quantity of swaps data and were disappointed by the unwillingness or slowness of CFTC leadership to take action to remedy the situation. The result, in the case of the Margin Rule, was a rulemaking effort some characterized as akin to flying blind, and a cost-benefit consideration almost devoid of quantitative analysis. Among other examples, the various thresholds found in the rule, such as the $8 billion Material Swap Exposure threshold, were set arbitrarily, rather than pursuant to numerical analysis.

[148] As noted above, the CFTC has outsourced initial margin model review to the National Futures Association. The NFA has different institutional incentives from the CFTC. The cost-benefit consideration does not address the adverse consequences that may stem from a divergence of interests between a principal and its agent.
[149] Further exacerbating the issues surrounding the absence of symmetric analysis discussed above.

Documentary evidence corroborates staff's opinion about a general institutional failure to pursue high data quality in support of the agency's mission. A June 2016 Division of Clearing and Risk ("DCR") internal report on uncleared swaps data, for example, states that DCR's stress-testing program is significantly hampered due to the poor quality of uncleared swaps data.[150] The report discusses uncleared swaps data quality for five asset classes and finds only two to be of good quality; the other three were found to be "essentially unusable."[151] The proportion of missing positions ranged from 22% to 88%. Other problems included: outdated mark-to-market valuations; illogical or impossible values; incorrect product classifications; incorrect cleared status; and an unworkable mish mash of firm ID formats.[152] The DCR report concludes by noting that uncleared risk "has remained mostly opaque," and that trillions of dollars of notional positions are "unpriceable" and represent an "unmeasurable amount of risk."[153]

This situation appears to stem from a failure of leadership at the CFTC. According to the same DCR report, "ongoing oversight of SDR data quality within DCR has been limited . . . and widespread errors have been allowed to persist for years. . . . [R]eporting requirements did not specify sufficient fields for pricing and did not define field attributes . . . ."[154] In response to criticism of the agency's data efforts, then-CFTC Chairman Massad said that the CFTC thought the industry would, in response to reporting requirements, come up with data standards itself.[155]

The effects of poor data quality go beyond the Margin Rule, because the Margin Rule operates in conjunction with other rules, such as the clearing mandate and forthcoming capital requirements. The lack of transparency into systemic risk in the uncleared world therefore undermines the entire regulatory project of which the Margin Rule is one component. For example, we were told that DCR currently does periodic stress-testing and related surveillance activities in the cleared space—but most of the firms that participate in the cleared space also participate in the uncleared space. The agency's blindness to the risks associated with a particular firm's uncleared positions leaves the agency hamstrung when attempting to monitor the swaps market in a holistic manner.

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150 CFTC, *DCR Uncleared Data Quality Report* (2016) (on file with OIG).
151 *Id*.
152 Firm IDs appear in multiple formats, and the agency lacks a complete firm ID table.
153 *Id.*
154 *Id.*
155 "But building an efficient system to collect and analyze data from this market is an enormous undertaking, and there is more work to do. Currently, for example, there is considerable variation in how different participants report the same fields to SDRs, and how the SDRs themselves transmit information to the CFTC. When the rules were first written, the Agency purposely didn't prescribe exactly how each field should be reported – for a number of reasons. First, when the agency issued the reporting rules, we didn't yet have any data to inform our views. And second, we expected the industry to develop standardized terms. That, unfortunately, did not happen." Chairman Timothy Massad, *Testimony Before the U.S. House Committee on Agriculture*, U.S. CFTC Speeches & Testimony (February 10,2016), http://www.cftc.gov/PressRoom/SpeechesTestimony/opamassad-41.

It seems inexplicable that a regulatory agency would impose data-reporting obligations on industry but fail to coordinate with industry to establish the data and formats needed to facilitate the regulatory program. But that appears to have happened, leaving the CFTC unable to rely on reported data for quantitative analysis in support of rulemakings like the Margin Rule. The CFTC can, if it chooses, make ad hoc requests to industry for data that would facilitate rulemakings, as we were informed was done for the Appropriate Minimum Block Sizes rulemaking.[156] An important caveat is that these types of data requests must be thought of at the outset of the rulemaking process. Nothing like this was done for the Margin Rule, which left the rulemaking team and its economists with an unusable data set, precluding any meaningful quantification in the cost-benefit consideration.[157]

RECOMMENDATIONS

1: The CFTC Should Include a Thorough, Objective, and Rigorous Economic Analysis, Adopting Symmetric Assumptions about Alternative Policy Regimes and Relying on Quantitative Analysis Where Possible

When considering the costs and benefits of a rule, we recommend the CFTC first establish a baseline view of market behavior; specify in detail the market failure that justifies the proposed intervention; and consider whether the market failure stems, in whole or in part, from existing policies or regulations. We further recommend the CFTC apply assumptions symmetrically and consistently across all considered policy options, including retaining the status quo; analyze, and quantify where possible, the likely direct and indirect effects and potential unintended consequences of the rule; and, to the greatest extent possible, clearly state expectations and estimates regarding the response of market participants to the passage of the new rule. Issues not amenable to analytical scrutiny, due to data or other institutional constraints, should be highlighted; issues not amendable to quantification should still be qualitatively examined with equal rigor; and cost-benefit analysis should be frank in presenting what might go wrong with a given rule.

[156] CFTC, Final Rule, Procedures to Establish Appropriate Minimum Block Sizes for Large Notional Off-Facility Swaps and Block Trades, 78 Fed. Reg. 32866 (May 31, 2013).

[157] The importance of thinking about data needs at the outset is of utmost importance. For example, even where existing SDR data is “clean,” it can be of limited usefulness where the data consist of mere notional values, which provide little insight into the level of risk exposure in the market. Two counterparties may have millions of dollars in notional value within various swap agreements with each other, but the amount at risk may be a tiny fraction of the notional.

We further recommend that every rule be subjected to periodic retrospective analysis, to gauge whether the rule is having the intended effect at reasonable cost. Even where a rule has immediate and clear salutary benefits, periodic assessments retain value—the efficient operation of markets is dynamic and ever-changing, requiring reexamination and verification of governing rules. A thorough cost-benefit analysis that establishes a baseline and examines potential consequences in a systematic manner facilitates such retrospective reviews, and in turn, retrospective reviews help calibrate and improve future cost-benefit analyses.

We further believe that rulemaking teams would benefit from greater investment in economic knowledge at the CFTC. We recommend the CFTC shift its personnel investment toward more economists and analysts in the business divisions, and establish the Office of the Chief Economist ("OCE") as a source and repository of juried economic research fostering greater understanding of CFTC-regulated markets. The importance of a well-functioning OCE that focuses on long-term, peer-reviewed, published economic research cannot be overstated—every issue we explored in our discussion can be a topic of long-term research. OCE should encourage and nurture research, not only by its own staff but by outside economists, via calls for papers, hosted symposia, etc., all with the purpose of edifying the agency and the public on issues related to the regulatory mission. A productive OCE can provide a broad and deep reservoir of knowledge and understanding about financial markets that rulemaking teams and cost-benefit analyses can draw on.[158]

2: The CFTC Should Focus Resources on Improving Data Quality, Emphasizing Productive Collaboration Among the Business Divisions, OCE, and ODT, to Improve Cost-Benefit Analysis of New Rules

Our recommendations regarding cost-benefit analysis depend on the CFTC's ability to understand the markets it regulates. We therefore recommend the CFTC focus on, and provide institutional support for, improving its entire data infrastructure, including recognition of data needs, data reporting mandates on industry, data acquisition standards and formats, data storage and processing, data quality assurance, and data processing and analysis. We understand the CFTC is pursuing organizational and other changes, so we limit our recommendation to actions that would specifically improve the data available for cost-benefit analysis.

[158] We have previously highlighted OCE's insufficient focus on long-term economic research and its potential screening of politically sensitive topics. CFTC OIG, *Follow-up Report: Review of the Commodity Futures Trading Commission's Response to Allegations Pertaining to the Office of the Chief Economist* (January 13, 2016) ("Follow-Up OCE Report"). We continue to hear similar concerns from OCE staff. We note that CFTC Management at the time of our Follow-up OCE Report responded that our "agenda" of long-term economic research within OCE is "impractical." CFTC, *Management Response to the Draft IG [Follow-Up OCE Report]* (December 18, 2015), at 2.

We recommend rulemaking teams focus early in the rulemaking process on identifying the kinds of data needed to establish a baseline understanding of the market and to analyze the effects of potential policy choices. We recommend that rulemaking teams then prioritize acquisition of such data by the most appropriate means at their disposal, including by requests to market participants and via well-constructed industry surveys.[159] And we further recommend continued identification and gathering of data that would aid in retrospective analysis of rule efficacy.[160]

With proactive and effective data-gathering, rulemaking teams can rely on more quantitative and analytical guidance during their rule-development efforts. Moreover, the cost-benefit analysis enabled by data availability will be more verifiable and reproducible, enabling a richer discussion within the CFTC and with Congress, the public, and the marketplace.

CONCLUSION

The Margin Rule, and other regulatory rules, impose significant costs on our financial institutions and markets. The public deserves robust economic analysis that determines whether the costs borne by society are outweighed by the actual benefits that will materialize, not the purported benefits intended by the rule-makers. The CFTC should provide a thorough, objective, and rigorous analysis of costs and benefits, with quantification where possible, to justify its rulemakings.

[159] We believe the CFTC's economists and analysts are capable of identifying the data required to support an effective regulatory regime.

[160] Identifying what data will be needed to assess the full effects of a rule is an important reason why the cost-benefit consideration should anticipate and ponder indirect effects and potential unintended consequences of the rule.

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CFTC Management Response to the OIG Report Dated April 6, 2017 Regarding a Review of the Cost-Benefit Consideration for the Margin Rule for Uncleared Swaps

Introduction

CFTC Management is pleased to have the opportunity to review and respond to the CFTC's Office of the Inspector General's (OIG) review of the cost-benefit discussion in the CFTC's margin rule for uncleared swaps (hereafter "Report"). The Commission published the final margin rule on January 6, 2016 (hereafter "Margin Rule").[1] The following management response briefly describes the OIG's Report, and then responds to the OIG's concerns and recommendations.

Summary of the OIG Report

A. The OIG indicated that the Commission's economic analysis for the Margin Rule could have been more robust.

The OIG remarked that the Commission had discussed most of the nine economic areas that the OIG identified as relevant topics for the Margin Rule's cost-benefit discussion. The OIG, however, added that the Commission should have elaborated and suggested that the discussion should have been more nuanced. The nine economic areas were: (1) Systemic Risk; (2) Market Liquidity; (3) Procyclicality; (4) Homogenized Risk; (5) Hedging, Risk Compensation & Collateral Transformation; (6) Redistribution of Default Risk; (7) Incentivizing Cleared Products; (8) Interaction Effects; and (9) Time Inconsistency and Imperfect Implementation.[2]

[1] 81 Fed. Reg. 636 (Jan. 6, 2016). The Commission's initial proposed margin requirements were published on April 28, 2011, at 76 Fed. Reg. 23732. The Commission re-proposed margin requirements in response to and in consideration of international margin standards in September 2014. 79 Fed. Reg. 59898 (Oct. 3, 2014).
[2] Each area is identified as an italicized sub-section in the OIG Report. *See* Report at pp. 15-27.

B. <u>The OIG commented that the swaps data reported to the Commission, and the Commission's data collection processes are flawed.</u>

The OIG remarked that the Commission has been "hamstrung when attempting to monitor the swaps market in a holistic manner" because the Commission has received poor-quality, error-ridden data from regulated entities in the cleared and uncleared swaps markets. [3] The OIG also said that the Commission appeared to lack the commitment to rectify the data problems. The OIG added that in the interim the Commission could make ad hoc data requests to industry for future rulemakings.

C. <u>The OIG offered two recommendations to the Commission for improving the cost-benefit discussions for future rulemakings and swaps data quality.</u>

The first OIG recommendation has three components. The first component focuses on the execution of future rulemakings; it recommends that the Commission clearly specify the market failure that the rulemaking addresses and it identifies several elements that the economic analysis supporting the rulemaking should incorporate. A second component recommends that the Commission perform periodic retrospectives to monitor the cost-effectiveness of finalized rules. The third component counsels the Commission to invest in retaining more economists and analysts, and to establish the Office the Chief Economist ("OCE") as a source of long-term, peer-reviewed, published research that fosters a greater understanding of CFTC-regulated markets.

The second OIG recommendation centers on data. The OIG recommends that the Commission provide institutional support for improving its entire data infrastructure, and recommends that Commission rulemaking teams determine early in the process the types of data necessary for setting baselines and assessing the effects of policy choices. In addition, the OIG recommends the continued collection of data for retrospective reviews of rules.

[3] Report at p. 28.

CFTC's Management Response

A. Legal Context

The OIG specifies that its analysis in the report "does not make any claims with respect to the *legal* sufficiency of the CFTC's cost-benefit consideration."[4] Similarly, CFTC Management's Response in Section B should not be viewed as an assessment or description of the CFTC's legal obligations. Notwithstanding the Report's disavowal of discussing legal issues, CFTC Management notes that the Report's recommendations differ in at least two important respects from the CEA's requirements.

The first difference relates to the scope of the statutory cost-benefit requirement, set forth in Section 15(a) of the CEA. Under that Section, the CFTC must, before issuing a regulation, "consider the costs and benefits of the action of the Commission."[5] The phrase "action of the Commission" is an important limitation. Under controlling case law, it means that the Commission must consider the costs and benefits of the actions over which it has discretion.[6] The Report appears to suggest that the Commission should also consider the costs and benefits of actions commanded by Congress.[7] That is not a legal requirement. Courts, including the D.C. Circuit, have explained that agencies are "not empowered" to reconsider those Congressional judgments.[8]

The second difference relates to the role of quantitative analysis. CFTC Management agrees as a policy matter with the Report's emphasis on the importance of data in Commission

[4] Report at 1 n.5.
[5] 7 U.S.C. § 19(a).
[6] *Nat'l Ass'n of Mfrs. v. SEC*, 748 F.3d 359, 370 (D.C. Cir. 2014).
[7] Report at 13.
[8] *Public Citizen v. Fed. Trade Comm'n*, 869 F.2d 1541, 1557 (D.C. Cir. 1989); *see also Nat'l Ass'n of Mfrs.*, 748 F.3d at 370 (holding that the agency correctly did not "second-guess[]" through cost-benefit analysis Congress's determination "that the rule's costs were necessary and appropriate in furthering the goals" of the legislation); *SIFMA v. CFTC*, 67 F.Supp.3d 373, 431 (D.D.C. 2014) (holding that the CEA did not require "the CFTC to reconsider whether it was 'necessary'—or even desirable" to apply swaps regulations to overseas activities, because "Congress made that determination" and "agencies surely do not have inherent authority to second-guess Congress' calculations").

rulemaking. The more relevant quantitative data the Commission can collect and use, the better the Commission can tailor its regulations to serve the public interest.

CFTC Management's commitment to such quantification and rigor, however, does not stem directly from the CEA. The D.C. Circuit has so held.[9] Indeed, courts recognize that quantification is not always possible.[10] In those situations and others, an agency subject to a cost-benefit requirement is empowered to proceed on the basis of other reasoned, qualitative judgments.[11]

B. Response to Critiques

The OIG's critiques of the Margin Rule indicate that the Commission's efforts to integrate meaningful economic analysis in its rulemakings' cost-benefit discussions have improved since the first Dodd-Frank related rules were proposed in 2010.[12] As illustrated throughout the Margin Rule, the Commission addressed many of the areas the OIG highlighted in the Report's *Economic Analysis* section.[13] We believe that the CFTC Margin Rule demonstrates that the Commission is committed to engaging in a thorough consideration of the

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[9] *Inv. Co. Inst. v. CFTC*, 720 F.3d 370, 379 (D.C. Cir. 2013) (holding that the CEA contains "no such requirement" and upholding a largely qualitative consideration of costs and benefits).

[10] *Id*. ("[T]he law does not require agencies to measure the immeasurable.")

[11] *Chamber of Commerce of U.S. v. SEC*, 412 F.3d 133, 142 (D.C. Cir. 2005) ("The [SEC's] decision not to do an empirical study does not make that an unreasoned decision."); *BellSouth Corp. v. FCC*, 162 F.3d 1215, 1221 (D.C. Cir. 1999) ("When ... an agency is obliged to make policy judgments where no factual certainties exist or where facts alone do not provide the answer, our role is more limited; we require only that the agency so state and go on to identify the considerations it found persuasive").

[12] The Commission began proposing Dodd-Frank related rulemakings in the summer of 2010. *See* < http://www.cftc.gov/LawRegulation/DoddFrankAct/Dodd-FrankProposedRules/DoddFrankProposedRules >.

In April 2011, the OIG began investigating the Commission's efforts to discuss costs and benefits associated with Commission rulemakings. *See* CFTC OIG, *An Investigation Regarding Cost-Benefit Analyses Performed by the Commodity Futures Trading Commission in Connection with Rulemakings Undertaken Pursuant to the Dodd-Frank Act* (Apr. 15, 2011), and CFTC OIG, *A Review of Cost-Benefit Analyses Performed by the Commodity Futures Trading Commission in Connection with Rulemakings Undertaken Pursuant to the Dodd-Frank Act* (Jun. 13, 2011).

[13] The OIG stated that:

> we wish to emphasize that the rulemaking team members and cost-benefit contributors recognized the many issues we raise, but were hampered by significant data limitations and a lack of institutional commitment to the identification and quantification of costs and benefits, thus depriving the Margin Rule of the kind of analysis one might expect from an economic regulatory agency.

Report at p. 13.

rule's costs, benefits, and economic outcomes. CFTC Management also concurs with the OIG that the CFTC, as a market regulator, should include economic analysis as an integral part of the CFTC's policy decisions.

We, however, find the OIG's suggestion that rulemakings should assess "time inconsistency" and "imperfect implementation" for the purposes of cost-benefit discussions curious.[14] The OIG seems to advise that the Commission should examine hypotheticals that involve applying a rule imperfectly or in an unintended manner to a scenario and estimate hypothetical, rather than potential, costs and benefits, as well as debate the efficacy of a rule.[15] It is feasible for the Commission to acknowledge in its rulemakings that the costs and benefits might change if a rule is implemented in an unexpected manner in the future, and, then, ask for public comment. CFTC Management believes, however, that it would be prudent rulemaking to acknowledge and anticipate reasonable and foreseeable outcomes.[16] This approach will enable the Commission to better inform the public and market participants of likely costs, benefits, and economic consequences of its rules, and give affected parties the opportunity to offer meaningful comments.

The OIG Report highlights the Japan comparability determination as an example of the Commission's failure to explore "time inconsistency" and "imperfect implementation" as part of the Margin Rule's costs and benefits.[17] The OIG also refers to the rulemaking team members' dissatisfaction with the determination as support that the Margin Rule has a loophole caused by

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[14] Report at p. 25-26.
[15] Id. at 26 (The OIG commented that: "A careful cost-benefit consideration should take into account such time inconsistency and other sources of uncertainty about future implementation, such as interpretative ambiguity and principal-agent interest divergence").
[16] For example, in the Margin Rule's NPRM, the Commission stated that it is "seeking comments on the costs and benefits of not fully harmonizing its rules with those of the prudential regulators. Commenter are encouraged to discuss the operational difficulties and to quantify, if practical." 79 Fed. Reg. at 59925.
[17] Report at p. 25-26.

the Japan comparability determination.[18] We recognize that rulemakings and other Commission decisions are informed and honed by discussions between staff, the public, and market participants. Yet, as part of the administrative process, the Commissioners vote upon and issue the statements of the Commission. In the situation here, the Japan comparability determination was voted on by the same three Commissioners who voted for the Margin Rule.

Beyond the Margin Rule, CFTC Management is taking steps to be more expansive and address alternative economic scenarios in the Commission's rulemakings. Toward that goal, CFTC Management will continue to rely on the notice-and-comment phase of the rulemaking process, among other things. In our view, the rulemakings show that with more in-depth cost-benefit discussions, the Commission has been able to ask targeted questions on potential economic consequences as well as questions regarding quantified costs during the proposal stage.[19] In some cases, this has led to more fulsome discussions of costs, benefits, and economic consequences of rulemakings, in part, because of the public's participation and responsive comment letters. CFTC Management believes that public comments add to the richness of the Commission's examination of its rules' costs, benefits, and economic consequences.

In addition, the Commission engages in discussions with academia and industry via Commission advisory committees, such as the Market Risk Advisory Committee and Energy & Environmental Markets Advisory Committee, and through seminars presented by academics to

[18] Report at p. 26 ("Though [the OIG] express no judgment on the substantive correctness of the Commission's Japanese comparability determination, our review certainly suggest that the process for making the comparability determination involved a level of scrutiny inconsistent with what was anticipated by the rulemaking team and cost-benefit consideration when the rule was written.")

[19] *See, e.g.*, *NPRM for Regulation for Automated Trading*, 81 Fed. Reg. 85334 (Nov. 25, 2016) at 85372, 85374, 85377 (Commission posed questions regarding costs and benefits), and *NPRM for Clearing Requirement Determination Under Section 2(h) of the CEA for Interest Rate Swaps*, 81 Fed. Reg. 39506 (Jun. 16, 2016) at 39528-39534 (Commission included questions regarding costs and benefits).

staff.[20] The discussions are not confined to the parameters of the rulemaking process. Because of that fact, CFTC Management believes that committee meetings and academic seminars are useful for studying and understanding Commission-regulated markets as well as for informing policy decisions in general.

CFTC Management agrees with the OIG recommendation that the Office of the Chief Economist should focus on long-term, peer-reviewed, published economic research. OCE should be the focal point of long-term projects, by its own staff and in collaboration with outside economists, in order to edify the agency and the public on issues related to the mission of the CFTC. The economic analysis produced by OCE should be geared toward providing a deeper understanding of the futures and swaps markets, thus providing the Commission with a better understanding of the relevant facts and the trade-offs related to policy choices. Such analysis goes beyond a simple accounting of the prices of current costs and benefits, and incorporates rigorous analyses of market participant behavior, including their responses to costs and incentives. Relevant analyses should not be limited to a discussion within a particular rulemaking document but should reflect continuous, ongoing research activity.

The Commission's commitment to economic analysis is further evidenced by its FY 2018 Budget Request where it asked for 15 additional employees for OCE.[21] Additional staff and funds will enable OCE to develop economic modeling and econometric capabilities that are based on data and relevant for analyzing CFTC-regulated markets, participants, and products.[22] The Commission specifically expressed that at the requested budget level, it expects "to conduct

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[20] Information about the advisory committees is located at:
< http://www.cftc.gov/About/CFTCCommittees/index.htm >.

[21] Under the FY 2017 Continuing Resolution, OCE operates with 12 full time equivalents. For FY 2018, the Commission is seeking to operate OCE with 27 full time equivalents. *See* CFTC FY 2018 Budget Request at p. 7, located at < http://www.cftc.gov/idc/groups/public/@newsroom/documents/file/cftcbudget2018.pdf >.

[22] *See generally* CFTC FY 2018 Budget Request at p. 30, located at
< http://www.cftc.gov/idc/groups/public/@newsroom/documents/file/cftcbudget2018.pdf >.

data-driven studies of futures and swaps markets in order to inform the Commission and the public on a variety of topics, such as descriptive studies of derivatives markets, economic assessments of their functioning, analyses of the potential effects of policy choices, risk assessments pertaining to liquidity, financial stability and CCPs, etc."[23] With greater expertise and increased resources, the Commission will be able to leverage the new data sources for cost-benefit discussions in its rulemakings and aid OCE in providing economic analysis and advice to the Commission and the public.

CFTC Management also agrees with the OIG that a strong data infrastructure will improve data quality for cost-benefit discussions in rulemakings and for the agency generally. Since 2013, when swaps market participants began reporting, swap data has improved.[24] CFTC Management understands fully the quality concerns raised by the OIG, and has worked with market participants to improve data quality. One product of the Commission's efforts is the June 2016 amendment to the rules for cleared swap transaction data reporting.[25] As explained in the release, the Commission acknowledged its data problems, and made a serious effort, directed especially at cleared swaps, to fix data reporting problems by amending its Part 45 rules, *i.e.*, reporting to swap data repositories:

> As part of the Commission's ongoing efforts to improve swap transaction data quality and to improve the Commission's ability to utilize the data for regulatory purposes, Commission staff has continued to evaluate issues in connection with reporting under part 45, including those related to cleared swaps in particular. To this end, Commission staff formed an interdivisional staff working group ("IDWG") to identify, and to recommend resolutions to, reporting challenges associated with certain

[23] *Id.*

[24] "On January 1, 2013, certain swap market participants began reporting new and historical swap data to SDRs pursuant to 17 CFR Part 45, and the Commission began the process of analyzing these new data and incorporating them into the CFTC Swaps Report." < http://www.cftc.gov/MarketReports/SwapsReports/index.htm >.

[25] On June 27, 2016, the Commission finalized changes to reporting rules under 17 C.F.R. Part 45. *See Amendments to Swap Data Recordkeeping and Reporting Requirements for Cleared Swaps*, 81 Fed. Reg. 41736.

> swaps transaction data recordkeeping and reporting provisions, including the provisions adopted in the Final Part 45 Rulemaking.[26]

Commission staff also works frequently with swaps data in conducting ongoing research projects. Hence, a commitment to research projects that inform the Commission and the public about CFTC-regulated markets also informs those interested parties about impactful improvements to the data that will prove useful in evaluating policy choices. For example, the Commission issues a weekly report using data submitted to swap data repositories.[27] Based on staff research experience with the swaps data, the Commission utilized this Weekly Swaps Report, and the data underlying it, to estimate the funding costs of the initial margin requirement in the Margin Rule. In particular, the Commission was able to relate the then-current swap data to the results of the BCBS-IOSCO survey that was relied upon in the October 2014 NPRM for the Margin Rule.[28]

Another example of Commission staff working with data includes efforts related to the *Swap Dealer De Minimis Exception Final Staff Report*. To produce the *De Minimis* Report, staff culled-out, assessed, and analyzed data submitted to CFTC-registered swap data repositories during specific time periods. As part of that process, staff identified aspects of the data that were problematic and developed strategies for interpreting the reported data appropriately. For example, staff noted in the *De Minimis* Report that data improved during the time between the preliminary report review period and the final report review period. The data showed that market participants had more consistently started including LEIs with transactions reported to SDRs.[29] Commission staff also has used data reported by clearinghouses, large traders, and

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[26] *Id*. at 41737.
[27] The reports are located at: < http://www.cftc.gov/MarketOIG Reports/SwapsOIG Reports/index.htm >.
[28] 81 Fed. Reg. at 691 (see discussion on funding costs of initial margin requirement).
[29] In the *Swap Dealer De Minimis Exception Final Staff Report*, staff described data improvements and shortcomings. *See* discussion at pp. 18-20 of *De Minimis* Report located at < http://www.cftc.gov/idc/groups/public/@swaps/documents/file/dfreport_sddeminis081516.pdf >.

clearing members for a report entitled, *Supervisory Stress Test of Clearinghouses*.[30] In addition, there are numerous research projects underway using data from SDRs, DCOs, SEFs, DCMs, and from public sources.[31] Given its expertise in conducting economic analysis using this data, OCE staff is also involved in various joint data-harmonization efforts with international regulators.

Thus, while the goal is to receive and review quality data, CFTC Management recognizes that there is an inevitable lag between establishing a new data collection and building robust systems to validate, process, and reliably interpret such large amounts of data. CFTC Management recognizes that there may be considerable uncertainty for market participants if all rulemakings are delayed until comprehensive, perfect data are available to address all potential concerns in a detailed fashion. This is especially true in cases, such as the Margin Rule, where other regulators or other jurisdictions promulgate related rules. CFTC Management notes that this trade-off between timeliness and precision means that inaction by a regulator, in such cases, could lead to a greater burden for industry. In light of such concerns, CFTC Management believes it is vital that economic research be an ongoing, established program at the Commission, rather than a narrowly focused effort considering solely the accounting of costs and benefits of proposed and final rules.

CFTC Management agrees with the OIG's claims that rigorous economic research and improved data will benefit the Commission and the public. CFTC Management believes that it has made affirmative efforts to improve the Commission's data infrastructure, and intends to maintain these efforts into the future.

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[30] *Supervisory Stress Test of Clearinghouses Report* at p. 19. Report located at
< http://www.cftc.gov/idc/groups/public/@newsroom/documents/file/cftcstresstest111516.pdf >.

[31] For example, in the paper, *Exploring Commodity Trading Activity: An Integrated Analysis of Swaps and Futures*, OCE staff used post Dodd-Frank, data sets to measure index swap activity and commodity-specific activity focusing on WTI crude oil.
< http://www.cftc.gov/idc/groups/public/@economicanalysis/documents/file/oce_wtiswapsfutures.pdf >.