Office of the Comptroller of the Currency

MEMORANDUM

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Subject: Economic Impact Analysis for Swaps Margin Proposed Rule

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This memorandum provides our assessment of the economic impact of the proposed rule that would establish minimum margin and capital requirements for all non-cleared swaps and non-cleared security-based swaps for registered swap dealers, major swap participants, security-based swap dealers, and major security-based swap participants.[1]

Summary of Conclusions

We estimate that the fully phased-in proposed rule would require approximately $644 billion of initial margin.[2] Using the assumption that the opportunity cost of segregating initial margin into custodial accounts is between 45 and 100 basis points, the initial margin cost of the proposed rule is between $2.9 billion and $6.4 billion. Because OCC-supervised institutions account for roughly 80 percent of the covered swaps market, we estimate that the opportunity cost component of the proposed rule for OCC-supervised institutions is 80 percent of the $2.9 and $6.4 billion range, or between $2.3 billion and $5.1 billion per year. We estimate that non-recurring compliance costs could be approximately $659 million, and that annual recurring (fully phased-in) compliance costs would be approximately $149 million. Combining these costs, we estimate that the overall cost of the proposed rule to OCC-supervised institutions is between $3.1 and $5.9 billion. Applying a discount rate of three percent suggests that the present value cost of the fully phased-in rule would be between $2.8 billion and $5.2 billion.

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[1] The Dodd-Frank Act defines swaps to include interest rate swaps, commodity-based swaps, and broad-based credit swaps, and defines security-based swaps to include single-name and narrow-based credit swaps and equity-based swaps. This list excludes foreign-exchange swaps, which are excluded from coverage under the proposed rule. We exclude foreign exchange swaps from our analysis.

[2] Estimates for initial margin requirements mentioned in the quantitative impact section of the preamble to the proposed rule range from $280 billion to $3.6 trillion. Our estimate of $644 billion falls roughly in the middle of these estimates. Our estimate is likely to be a conservative estimate as it does not take into consideration the fact that under the Dodd-Frank Act, banks must push out certain swap activities. Because of the push-out requirement, in the future, OCC-supervised institutions may not handle some swaps activities included in our estimate, which means that our estimated initial margin requirement may be overstated.

This estimate suggests that the proposed rule has a significant impact under the Unfunded Mandates Reform Act thresholds for a "significant regulatory action". We estimate that the proposed rule will not have a significant economic impact on a substantial number of small OCC-supervised entities, pursuant to the Regulatory Flexibility Act.

The Proposed Rule

The proposed rule on margin and capital requirements for covered swap entities would establish risk-based margin requirements for covered swap entities. The margin requirements would apply to both the collection and posting of margin by a covered swap entity. Under the proposed rule, a risk-based approach would vary the margin requirement depending on the type of counterparty. The proposed rule identifies four types of swap counterparties. Counterparties that are:

1) Other swap entities
2) Financial end users of swaps with a material swaps exposure[3]
3) Financial end users of swaps without a material swaps exposure[4]
4) Other counterparties, including nonfinancial end users, sovereigns and multilateral development banks

The proposed rule would require the collection of initial and variation margin. Swap counterparties post or collect initial margin at the inception of the swap and variation margin throughout the life of a swap to reflect daily changes in the mark-to-market value of the transaction. At present, initial margin is generally not collected on transactions between dealers, while variation margin is exchanged between dealers and commonly exchanged between dealers and end-users. The proposed rule would only apply the new margin requirements to new swaps. For variation margin, the compliance date is December 1, 2015. For initial margin, the compliance date ranges from December 1, 2015, to December 1, 2019, depending on the average daily aggregate notional amount of non-cleared swaps, non-cleared security-based swaps, foreign exchange forwards and foreign exchange swaps (covered swaps), as follows:

Covered Swap Amount at Swap Entity and Counterparty	Initial Margin Compliance Date
Greater than $4 trillion	December 1, 2015
Greater than $3 trillion	December 1, 2016
Greater than $2 trillion	December 1, 2017
Greater than $1 trillion	December 1, 2018
Greater than $0	December 1, 2019

[3] Financial end users include, but are not limited to, bank holding companies (BHCs) and their affiliates, depository institutions, a money service business, investment advisors, broker-dealers, commodity pools, commodity trading advisors, private funds, employee benefit plans and insurance companies that are not swap entities.

[4] The proposed rule defines a material swaps exposure for an entity to mean that the entity and its affiliates have an average daily aggregate notional amount of non-cleared swaps, non-cleared security-based swaps, foreign exchange forwards and foreign exchange swaps for each business day in June, July and August of the previous year that exceeds $3 billion.

Under the proposed rule, a covered swap entity would calculate the minimum initial margin requirement using either an approved internal margin model or the standardized margin schedule shown in table 1. The initial margin requirements are tempered by thresholds, below which the swap entity need not collect or post initial margin. The proposed rule sets an initial margin threshold at $65 million for counterparties that are other swap entities or financial end users with a material swaps exposure. The proposed rule also provides for a minimum transfer amount for the collection and posting of margin by covered swap entities. Under the proposal, a covered swap entity need not collect or post initial or variation margin from or to any individual counterparty otherwise required unless and until the required cumulative amount of initial and variation margin is greater than $650,000. The proposed rule would require variation margin to match the change in the value of the swap and variation margin settlement must occur on a daily basis. The collection and posting of variation margin would also depend on the type of counterparty. Table 2 summarizes the margining requirements by type of counterparty.

Table 1. Standardized Minimum Initial Margin Requirements for Non-cleared Swaps

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

Table 2. Initial and Variation Margin Minimums by Counterparty Type

Type of Counterparty	Initial Margin (IM)		Variation Margin
	IM Threshold[5]	Amount	Amount
Other swap entities	$65 million or below	Internal model or standardized minimum	Daily market value change
Financial end users with a material (exceeds $3 billion) swaps exposure	$65 million or below	Internal model or standardized minimum	Daily market value change
Financial end users without a material swaps exposure	NA	Judgment of the covered swap entity (current practice: little or none)	Daily market value change
Other counterparties, including nonfinancial end users.	NA	Judgment of the covered swap entity (current practice: little or none)	Judgment of the covered swap entity (current practice: little or none)

The proposed rule also establishes types of eligible collateral and requires that initial margin collected or posted by a covered swap entity be segregated at a custodian unaffiliated with the covered swap entity and the counterparty, i.e., at a third-party custodian. Furthermore, the custodian must not rehypothecate, i.e., re-pledge initial margin or reinvest any initial margin unless that asset would qualify as eligible collateral for initial margin under the proposed rule. The posting party may direct the custodian to reinvest funds only in assets that would qualify as eligible collateral and ensuring that the amount is appropriate after applying appropriate haircuts to the collateral.

With respect to capital requirements for swap entities, the banking agencies propose to rely on existing capital rules for their covered swap entities. The proposed rule would also include documentation requirements for covered swap entities. Documentation must specify methods for determining the value of each swap and the resolution procedures related to resolving disputes related to the swap valuation.

Institutions Affected by the Proposed Rule

The proposed rule would apply to any swap entity, which for the purposes of this analysis is any entity that must register as a swap dealer or major swap participant with the Commodities Futures Trading Commission (CFTC) or a security-based swap dealer or major security-based swap participant with the Securities and Exchange Commission (SEC) (collectively, swap entities). From the perspective of swap entities supervised by the OCC,

[5] The proposed rule permits a covered swap entity to adopt a maximum initial margin threshold amount of $65 million, below which it need not collect or post initial margin from or to swap entities and financial end users with material swaps exposures. The threshold would be applied on a consolidated basis, and would apply both to the consolidated covered swap entity as well as to the consolidated counterparty.

the proposed rule would apply to any swap entity that is a national bank, a federally chartered branch or agency of a foreign bank, or a federal savings association. As of August 8, 2014, nine national banks and six federally chartered branches of foreign banks have registered as swap dealers with the CFTC.[6]

To gauge swap activity at U.S. financial institutions, we examine variables from Call Report schedule RC-L – Derivatives and Off-Balance Sheet Items that reflect swap activity. These "swap" variables include:

(1) Notional amounts of credit derivatives (both sold and purchased protection),[7]
(2) Gross amounts of forward contracts,[8]
(3) Gross amounts of OTC option contracts (both written options and purchased options),[9]
(4) Gross amounts of swaps.[10]

According to Call Report data for March 31, 2014, 1,269 FDIC-insured depository institutions report some swap activity, and total swap activity for FDIC-insured institutions was roughly $221 trillion. Of this total, 336 OCC-supervised institutions accounted for roughly $171 trillion, or approximately 77 percent of the total. The 15 OCC-supervised institutions that the proposed rule is likely to affect hold $170.1 trillion, or approximately 77 percent of the total and 99.6 percent of swaps at OCC-supervised institutions. Table 3 shows the number of FDIC-insured institutions reporting swap activity between 2006 and March 31, 2014 and the dollar amount of that swap activity. Table 3 suggests that reported swap amounts have been relatively consistent since 2010, so we will use current reported amounts as our forecast of future swaps activity.

[6] As of January 24, 2014, the SEC has not finalized its rules on who must register as a security-based swap dealer. For the purposes of this analysis, we expect that with respect to OCC-supervised institutions, the CFTC list includes all or most of the institutions that will register with the SEC. The list of registered swap dealers is available on the CFTC website at http://www.cftc.gov/LawRegulation/DoddFrankAct/registerswapdealer. Over time, the number of covered institutions may increase as the CFTC swap dealer registration threshold decreases as scheduled by the CFTC.
[7] Schedule RC-L, Item 7.a.
[8] Schedule RC-L, Item 12.b.
[9] Schedule RC-L, Item 12.d.
[10] Schedule RC-L, Item 12.e.

Table 3. FDIC-insured Institutions with Swap Activity, 2006-2014, as of December 31, except as noted

Year	Number of FDIC-insured Institutions Reporting Swap Activity	Amount Reported ($ in billion)
2006	827	$ 121,825
2007	866	$ 158,042
2008	897	$ 204,558
2009	950	$ 206,272
2010	1,011	$ 222,096
2011	1,036	$ 222,690
2012	1,221	$ 215,666
2013	1,260	$ 228,781
3/31/2014	1,269	$ 221,235

Source: Call Reports

Cost and Benefit Analysis

Ideally, a cost-benefit analysis would be able to identify and monetize, with certainty, all costs and benefits of a regulation, which would then allow policymakers to evaluate different regulatory options by comparing dollar amounts and pursuing those options with the greatest net benefits. Many financial regulations, however, include both cost and benefit components that cannot be expressed in monetary units with adequate certainty. As cost-benefit guidance from the Office of Management and Budget (OMB) points out, simple cost-benefit comparisons can be misleading when the analysis cannot express important benefits and costs in dollar terms, "because the calculation of net benefits in such cases does not provide a full evaluation of all relevant benefits and costs."[11] We follow OMB's recommendation in those instances, and provide an evaluation of non-quantified benefits and costs in addition to quantified benefits and costs.

As mentioned in the quantitative impact section of the preamble to the rule, like other analyses of swap margin proposals, this economic impact analysis is subject to considerable uncertainty. To conduct this analysis, we must make several assumptions, including:

1. The amount of swap market activity in the future
2. The amount of central clearing in the future
3. The initial margin percentages
4. The distribution of swaps across counterparty types
5. The opportunity cost of segregating initial margin
6. The administrative costs of establishing initial margin operations

To estimate the amount of initial margin required under the proposed rule, we use the standardized initial margin percentages from table 1. Although supervisory agencies will not allow covered institutions to cherry pick the method they use to determine initial margin, we

[11] See Circular A-4, Office of Management and Budget, September 17, 2003, p. 10.

expect that when making the initial determination of their preferred method, institutions will select the internal model over the standardized table if the internal model indicates posting lower initial margin than the standardized method. Thus, we expect our use of the standardized initial margin table to provide a conservative estimate of the amount of initial margin the proposed rule could require.

Monetized Costs of the Proposed Rule

The proposed rule has four major components. It would (1) introduce initial margin requirements, (2) introduce variation margin requirements, (3) acknowledge that capital requirements as currently applied to prudentially regulated banking organizations are sufficient to meet the capital requirement provisions of the Dodd-Frank Act related to swaps, and (4) introduce various segregation, documentation, and administrative operational requirements.

The proposed rule does not change the risk-based capital requirements applicable to covered swap entities. Therefore we estimate that there will be little to no additional costs related to the risk-based capital requirements.[12] The proposed rule's variation margin requirements are largely in keeping with current industry practice. Thus, except for small entities as discussed in our Regulatory Flexibility Act analysis described below, we assume that the cost of the variation margin requirements of the proposed rule will be negligible.

To estimate the impact of the initial margin and administrative provisions of the proposed rule, we first estimate the dollar amount of swap trades that could be affected by the proposed rule. We then estimate the amount of initial margin the proposed rule could require based on the standardized margin table, and finally, we estimate the potential costs associated with the requirement to segregate the initial margin at one or more custodians that are not affiliates of the covered swap entity or the counterparty (third-party custodian). In addition to the costs associated with the initial margin requirement, we estimate the administrative costs that implementation of the proposed rule may involve. We also discuss non-monetized costs, such as the costs to swap entities and third-party custodians associated with the prohibitions on rehypothecating, repledging, reusing or otherwise transferring, any of the funds or other property the third-party custodian holds.

Initial Margin

Under the proposed rule, covered institutions would satisfy initial margin requirements with eligible collateral transferred to a third party custodian. The proposed rule requires the collection and posting of initial margin after passing specific dollar thresholds for swaps involving certain counterparties, as shown in table 2.

The proposed initial margin requirements would only apply to new swap contracts. To estimate the amount of initial margin that may be subject to collection in the first year of a fully phased-in rule, we first estimate the amount of new swap trades that might occur within

[12] We also assume that initial margin held by third-party custodians will not increase their total leverage exposure under the supplemental leverage ratio (SLR).

a year. We use the maturity structure of the existing swaps market to estimate the dollar amount of new contracts that could renew within the next year to replace maturing contracts.

As shown in table 4, we estimate a renewal proportion for each maturity period indicated in the OCC's Quarterly Report on Bank Trading and Derivatives Activities. We then apply this renewal factor to contract amounts from the OCC's report for the first quarter of 2014, to arrive at an estimate of new trades that could be subject to the initial margin requirement of the proposed rule in the first year.[13] Based on CFTC reports, we also assume that roughly 40 percent of the notional amount of each swap contract type will not be cleared on an exchange.[14] Using the gross initial margin percentages from the standardized initial margin requirement in Appendix A of the proposed rule and a net-to-gross ratio of 15 percent (i.e., we assume that 85 percent of the notional amount is subject to an eligible master netting agreement (EMNA)), we apply the estimated initial margin requirement to our estimate of the gross notional amount of new trades to arrive at an estimate of the amount of initial margin. As shown in table 4, we arrive at an initial margin estimate in year one of roughly $331 billion.

Table 5 extends this preliminary analysis to the fully phased-in rule in 2019. December 1, 2019, is the final compliance date transition. By 2019, annual renewal of maturing contracts means that the initial margin requirements would apply to most swaps outstanding as of March 31, 2014. As shown in table 5, we estimate that the initial margin amount using the standardized margin for swaps subject to an EMNA would be approximately $644 billion.

Several factors will affect how the proposed rule affects initial margin amounts over time. The proposed rule would only apply the initial margin requirement to swaps that are not centrally cleared. We expect that the proportion of cleared swaps to non-cleared swaps will tend to increase as the proposed rule takes effect, but we do not incorporate this change into our estimate. Initial margin requirements associated with the proposed rule will fall as the proportion of cleared swaps increases.

[13] We do not have information on (1) the distribution of swap contracts across the four types of counterparties, (2) how many contracts would fall below the $65 million initial margin threshold, (3) the distribution of swap contracts across the several phase-in dates, and (4) our estimates exclude initial margin already collected by banks, which is common practice on transactions with hedge funds. By using Call Report data without adjustment, our initial margin estimates will be conservative.

[14] Our estimate for uncleared swaps is based on the percentage of the notional amount of uncleared interest rate swaps from the CFTC's weekly swaps report for July 11, 2014, through August 2014, located at http://www.cftc.gov/MarketReports/SwapsReports/L1GrossExpCS .

Table 4. Estimate of Initial Margin Collection Using Standardized Table, ($ Billions)

Contract Type	Contract Maturity	3/31/2014 Notional Amount	Estimated Annual Renewal Factor	Estimated Annual Notional Renewal Amount	Estimated Annual Notional Renewal Amount Not Cleared	Standardized Margin[15]	2015 Estimated Margin[16]
Interest Rate	< 1 year	$77,936	1	$77,936	$31,174	1%	$153
	1-5 years	$37,668	0.4	$15,067	$6,027	2%	$59
	5+ year	$24,282	0.2	$4,856	$1,942	4%	$38
FX	< 1 year	$20,099	1	$20,099	$8,040	6%	
	1-5 years	$2,299	0.4	$920	$368	6%	
	5+ year	$974	0.2	$195	$78	6%	
Gold	< 1 year	$90	1	$90	$36	15%	$3
	1-5 years	$15	0.4	$6	$2	15%	$0
	5+ year	$0	0.2	$0	$0	15%	$0
Precious Metals	< 1 year	$24	1	$24	$10	15%	$1
	1-5 years	$4	0.4	$2	$1	15%	$0
	5+ year	$0	0.2	$0	$0	15%	$0
Other Comm.	< 1 year	$265	1	$265	$106	15%	$8
	1-5 years	$122	0.4	$49	$20	15%	$1
	5+ year	$19	0.2	$4	$2	15%	$0
Equity	< 1 year	$673	1	$673	$269	15%	$20
	1-5 years	$305	0.4	$122	$49	15%	$4
	5+ year	$90	0.2	$18	$7	15%	$1
Credit: Investment Grade	< 1 year	$1,414	1	$1,414	$566	2%	$6
	1-5 years	$6,243	0.4	$2,497	$999	5%	$24
	5+ year	$615	0.2	$123	$49	10%	$2
Credit: non-Investment Grade	< 1 year	$619	1	$619	$248	2%	$2
	1-5 years	$2,127	0.4	$851	$340	5%	$8
	5+ year	$200	0.2	$40	$16	10%	$1
Total		$176,083		$125,870	$50,348		$331

Source: OCC's Quarterly Report on Bank Trading and Derivatives Activities, First Quarter 2014

[15] The maturity dates in the standardized table do not match the maturity date breakdown available in our data, so the estimated initial margin is higher for 1-2 year maturity swaps in the interest rate and credit categories.

[16] To estimate the initial margin, we apply the net standardized initial margin formula to our not-cleared notional estimates. The standardized initial margin formula is equal to Gross initial margin*(0.4 + .6* Net-to-gross ratio), where we use the Standardized Margin from the rule's Appendix A for the Gross initial margin and a net-to-gross ratio of 15 percent.

Table 5. Estimate of Fully Phased-in Initial Margin Collection Using Standardized Table for Swaps Subject to an EMNA, ($ Billions)

Contract Type	Contract Maturity	3/31/2014 Notional Amount	Estimated Annual Notional Amount Not Cleared	Standardized Margin	2015 Estimated Margin	2019 Estimated Margin
Interest Rate	< 1 year	$77,936	$31,174	1%	$153	$153
	1-5 years	$37,668	$15,067	2%	$59	$148
	5+ year	$24,282	$9,713	4%	$38	$190
FX	< 1 year	$20,099	$8,040	6%		
	1-5 years	$2,299	$920	6%		
	5+ year	$974	$390	6%		
Gold	< 1 year	$90	$36	15%	$3	$3
	1-5 years	$15	$6	15%	$0	$0
	5+ year	$0	$0	15%	$0	$0
Precious Metals	< 1 year	$24	$10	15%	$1	$1
	1-5 years	$4	$2	15%	$0	$0
	5+ year	$0	$0	15%	$0	$0
Other Comm.	< 1 year	$265	$106	15%	$8	$8
	1-5 years	$122	$49	15%	$1	$4
	5+ year	$19	$8	15%	$0	$1
Equity	< 1 year	$673	$269	15%	$20	$20
	1-5 years	$305	$122	15%	$4	$9
	5+ year	$90	$36	15%	$1	$3
Credit Investment Grade	< 1 year	$1,414	$566	2%	$6	$6
	1-5 years	$6,243	$2,497	5%	$24	$61
	5+ year	$615	$246	10%	$2	$12
Credit non-Investment Grade	< 1 year	$619	$248	2%	$2	$2
	1-5 years	$2,127	$851	5%	$8	$21
	5+ year	$200	$80	10%	$1	$4
Total		$176,083	$70,433		$331	$644

Source: OCC Quarterly Report on Bank Trading and Derivatives Activities, First Quarter 2014 and PAD estimates

Other factors that may reduce the impact of the proposed rule include the following. (1) Dealers are likely to use the internal model alternative for determining initial margin under the proposed rule, which will reduce exposure through offsetting exposures, diversification, and other hedging benefits within four broad risk categories. (2) Under the proposed rule, collection and posting of margin is not necessary from certain types of counterparties and below certain thresholds, so this will limit the amount of initial margin that actually transfers. At present, we do not have information on the extent to which these and other factors could mitigate or amplify the potential impact of the proposed rule.

The actual cost of the initial margin requirement with respect to banks subject to the rule is the opportunity cost of collateral that, according to the proposed rule, must be segregated into a custodial account with a presumably lower rate of return than other possible uses of these

funds. Using our initial margin estimate of $644 billion, every basis point of lower return equals $64 million. If we assume a 100 basis point difference in return, the opportunity cost of the fully phased-in initial margin requirement would be $6.4 billion.

We estimate that net funding costs will range from 45 to 100 basis points. Based on recent spreads between the rate of return on 1-year Treasuries and Federal Home Loan Bank advances of comparable maturity, we estimate the lower end of the range at 45 basis points. For the upper end of the range, we consider the historical spread between US single A 2-year bank bonds and the 2-year US Treasury Note to arrive at an estimated net funding cost of approximately 100 basis points.

Using our assumption that the opportunity cost of segregating initial margin into custodial accounts is between 45 and 100 basis points, then the initial margin cost of the proposed rule is between $2.9 billion and $6.4 billion. Because OCC-supervised institutions account for roughly 80 percent of the covered swaps market, we estimate that the opportunity cost component of the proposed rule for OCC-supervised institutions is 80 percent of the $2.9 billion and $6.4 billion range, or between $2.3 billion and $5.1 billion.

Administrative Costs of Implementation

Because the proposed rule will necessitate changes in documentation, record-keeping, disclosure, and compliance, we expect there will be administrative costs associated with the implementation of the proposed rule. We estimate that implementation will require approximately 1,440 hours per institution, or at $92 per hour, approximately $133,000 per institution. As the proposed rule is likely to apply to 15 OCC-supervised institutions, we estimate that the implementation costs of the proposed rule are approximately $2.0 million.

In addition to record-keeping and administrative costs, we assume that covered institutions will need to negotiate and execute new master netting agreements, establish new third-party custodial accounts, and modify an existing internal margin model to comply with the proposed rule. Additionally, once covered institutions have established custodial accounts, we estimate that custodial account fees for covered institutions will be roughly two basis points of the new initial margin amount. For OCC-supervised institutions, we estimate that the custodial account fees will be approximately $103 million. As shown in table 6, together, we estimate that non-recurring compliance costs could be approximately $659 million, and the annual recurring (fully phased-in) cost would be approximately $149 million. The OCC will also incur some additional costs related to supervision of swap entities and validating the internal margin models, we expect these costs to be approximately $1 million.

Estimate of Overall Cost

Combining initial margin and administrative costs, we estimate that the overall cost of the proposed rule to OCC-supervised institutions is between $3.1 billion and $5.9 billion. Applying a discount rate of three percent, suggests that the present value cost of the fully phased-in rule would be between $2.8 billion and $5.2 billion.

Table 6: Estimated annualized compliance costs for [OCC-supervised banks] ($ in thousands)[17]

	2015	2019
Non-recurring compliance costs		
Policies and procedures, recordkeeping and disclosure	2,000	
Execute new eligible master netting agreements (EMNAs) and document legal review and compliance	104,000	
Modify existing internal margin risk management models and have model approved by the OCC	800	
Establish third-party segregated custodial accounts	550,000	
Total non-recurring	**658,815**	
Recurring compliance costs		
Model control, oversight, and validation	800	800
Increased costs associated with exception processing, internal audit, and legal	45,000	45,000
Third-party segregated custodial accounts	52,960	103,040
Total recurring	**98,760**	**148,840**
Total compliance costs	**$757,575**	**$148,840**

Quantified Benefits

The proposed rule would provide one quantitative benefit and several significant qualitative benefits. The quantitative benefit of the proposed rule is the initial margin buffer itself. The $644 billion of initial margin under the proposed rule would create a new buffer against losses for covered swap entities and other swap market participants. This buffer lowers the risk to and consequently the default probabilities for these swap market participants. This buffer protects shareholders, creditors, and employees of the covered swap entities and other swap market participants. Because the default of a covered swap entity could have broad systemic implications, the initial margin buffer also helps protect the U.S. financial system and consequently, the economic welfare of the general public. In addition to protecting the general public by protecting the financial system, the margin buffer has a greater and more direct impact on those who participate in the swaps market for risk management purposes.

Non-quantified Benefits

In addition to this quantitative benefit from the buffer, the proposed rule has several non-quantified benefits associated with collecting and posting initial margin. These non-quantified benefits include the following:

(1) Initial margin helps reduce the uncertainty regarding the possible exposure to swap entities arising from non-cleared swaps. Under the proposed rule, initial margin

[17] All costs are in 2014 dollars.

provides protection from counterparty credit risk, which decreases the exposure to the counterparty and consequently, the uncertainty of the swap participant's overall exposure to swap counterparties.

(2) The risk sensitivity of the margin requirements should reduce the ability of firms that lack sufficient financial resources to use the swap market to take on excessive risks. Under the proposed rule, participants in the swaps market must be able to meet initial margin requirements before engaging in swaps market activity. The cumulative requirement of initial margin will limit the swaps market participation of those without sufficient financial resources.

(3) The segregation of initial margin provides additional credit protection. Under the proposed rule, segregating initial margin collateral with a third party custodian provides each counterparty with additional protection against the insolvency of the other counterparty.[18]

(4) The enactment of the Dodd-Frank Act and its provision related to swap margin requirements, which this proposed rule would implement, has encouraged compression of existing interest rate swap portfolios, which in turn decreases operational risks associated with swap processes. According to a report published by the International Swaps and Derivatives Association (ISDA), compression eliminated $56 trillion of notional principal outstanding in 2011. As pointed out by the study, compression reduces counterparty credit exposure, operational risk, and cost by decreasing redundant notional exposures.[19]

Comparison with Baseline

Under the baseline, the proposed rule would not apply, the benefits of the proposed rule would not be enjoyed and the costs of the proposed rule would not be incurred. The baseline is not a feasible option, however, as the Dodd-Frank Act mandates new non-cleared swap margin requirements.

Comparison with Alternative 1

Alternative 1 considers the impact of varying the dollar amount of the threshold used to determine the swap entities that would be subject to the proposed rule. Because swaps are concentrated in a relatively small number of institutions, however, varying this threshold would have little impact on the dollar amount of swaps affected by the proposed rule. Varying the threshold does, however, affect the number of institutions that would be subject to the proposed rule. Because initial margin is the principal cost component of the proposed rule and because it is closely linked to the notional swap amount, varying the dollar threshold for swap entities would have little impact on the costs and benefits of the proposed rule. Table 7 shows the number of institutions affected and the amount of swaps affected by various threshold amounts.

[18] See Leigh R. Fraser, "Segregation of Initial Margin Posted in Connection with Uncleared Swaps," The Harvard Law School Forum on Corporate Governance and Financial Regulation, April 19, 2014, available at Segregation of Initial Margin Posted in Connection with Uncleared Swaps — The Harvard Law School Forum on Corporate Governance and Financial Regulation.

[19] See ISDA, "Interest Rate Swaps Compression: A Progress Report", ISDA Study, February 2012.

Table 7. Alternative 1: Varying Threshold Amounts for Swap Entities, March 31, 2014

Swap Entity Threshold	Number of OCC-supervised Institutions with Total Swap Variables Above Threshold	OCC-supervised Institutions Notional Swap Amounts Reported ($ in Billions)
$10 billion	19	$170,484
$5 billion	22	$170,503
$3 billion	33	$170,547
$1 billion	44	$170,566
$500 million	53	$170,572
$250 million	67	$170,577
$100 million	90	$170,581

Comparison with Alternative 2

Alternative 2 considers the impact of varying the minimum transfer amount, set at $650,000 in the proposed rule. We expect that varying this threshold amount could affect the amount of initial margin collected under the proposed rule. The smaller the minimum transfer amount, the greater the amount of initial margin. Similarly, the larger the minimum transfer amount, the lower the amount of initial margin. Because we do not have information on the distribution of expected transfer amounts, we are not able to more precisely assess the impact of variations in minimum transfer amounts beyond the direction of the change.

Economic Analysis Requirements

A. Regulatory Flexibility Act (RFA)

As part of our analysis, we consider whether the proposed rule may have significant small entity effects pursuant to the RFA. Specifically, we consider if it is likely to (a) impact a substantial number of small entities, and (b) if the economic impact on a substantial number of small entities is significant. As of December 31, 2013, the OCC supervises 1,231 small entities.[20]

The proposed rule sets an initial margin threshold at $65 million for counterparties that are other swap entities or financial end users with a material swaps exposure. The proposed rule also provides for a minimum transfer amount for the collection and posting of margin by covered swap entities. Under the proposal, a covered swap entity need not collect or post initial or variation margin from or to any individual counterparty unless the required

[20] We base our estimate of the number of small entities on the SBA's size thresholds for commercial banks and savings institutions, and trust companies, which are $550 million and $38.5 million, respectively. Consistent with the General Principles of Affiliation 13 CFR §121.103(a), we count the assets of affiliated financial institutions when determining if we should classify a bank we supervise as a small entity. We use December 31, 2013 to determine size because a "financial institution's assets are determined by averaging the assets reported on its four quarterly financial statements for the preceding year." See footnote 8 of the U.S. Small Business Administration's *Table of Size Standards.*

cumulative amount of initial and variation margin is greater than $650,000. No OCC-supervised small entities qualify as swap entities or financial end users with a material swaps exposure. Thus, under the proposed rule, no small entities will have to post initial margin.

A covered swap entity would only be required to collect variation margin from a small entity if the amount of variation margin required to be collected daily exceeds $650,000. As of March 31, 2014, 115 OCC-supervised small entities reported swap exposures. Of these, only 30 had notional swap exposures greater than $10 million. Although we do not know the amount of variation margin at small entities, we expect that entities with notional swap exposures of less than $10 million are not likely to exceed the minimum transfer amount of $650,000. Accordingly, we estimate that the proposed rule could impact 30 or fewer OCC-supervised small entities. We use a five percent threshold to determine a substantial number of small entities, which means approximately 62 OCC-supervised entities (.05 x 1,231). Thus, we expect that the proposed rule will not impact a substantial number of small OCC-supervised entities.

B. Unfunded Mandates Reform Act of 1995

The Unfunded Mandates Reform Act (UMRA) requires that an agency review whether mandates imposed by a rule that may result in an expenditure of $100 million or more (adjusted annually for inflation) in one year by state, local, or tribal governments, or by the private sector. [21] Our estimate of the present value of the annual cost of the fully phased-in proposed rule is between $2.8 billion and $5.2 billion. We conclude that the proposed rule, if adopted, would result in private sector costs that exceed the UMRA threshold for a significant rule.

[21] UMRA's aggregate expenditure threshold to determine the significance of regulatory actions is $100 million or more adjusted annually for inflation. Using the GDP deflator published by the Bureau of Economic Analysis, we apply the ratio of the annual average 2013 GDP deflator to the 1995 deflator and multiply by $100 million to arrive at our inflation adjusted UMRA threshold of approximately $141 million.