

Citi OpenInvestorSM

The Future: Margin Requirements for Uncleared Derivatives



Rajen Shah, Global Head of Collateral Management and EMEA Head of Securities Lending, Securities and Fund Services

“The BCBS IOSCO guidelines will have a significant impact on the collateral industry. Organisations will be required to re-evaluate their operating models to support the new collateral landscape.”

In September 2013, after multiple iterations, the Basel Committee on Banking Supervision (BCBS), part of the Bank of International Settlements (BIS), and the International Organization of Securities Commissions (IOSCO) jointly published a final framework establishing consistent global standards for margin requirements for non-centrally-cleared derivatives. We present an overview of what these are, how they will affect market participants and how Citi can help.

Executive summary

The uncleared derivatives market is set to undergo significant reform in light of the recent publication by the BCBS/IOSCO paper on uncleared margining requirements. Given that non-centrally-cleared derivatives pose a number of risks that materialised in the recent financial crisis, the BCBS/IOSCO margin requirements create a framework that reflects the generally higher risk associated with these derivatives.

The framework has been designed to reduce systemic risks related to over-the-counter (OTC) derivatives markets and to provide firms with appropriate incentives for central clearing. Key framework elements include:

- All financial firms and systemically important non-financial entities that engage in non-centrally cleared derivatives will have to exchange initial margin (IM) and variation margin (VM);
- The requirement to collect and post IM on non-centrally-cleared trades will be phased in over a four-year period, beginning in

December 2015 with the largest, most active and most systemically important derivatives market participants;

- The requirement to exchange VM will become effective on 1 December 2015;
- Physically settled FX forwards and swaps exempted from IM requirements;
- “One-time” rehypothecation of IM collateral is permitted subject to a number of strict conditions;
- A universal IM threshold of EUR50 million below which a firm would have the option of not collecting IM;
- A broad array of eligible collateral to satisfy initial margin requirements.

The framework also foresees a gradual phase-in period within which to provide market participants sufficient time to adjust to the requirements.

Framework background

The fallout from the recent financial crisis demonstrated a number of weaknesses in the OTC derivatives markets. Since 2009, G20 countries have embarked on a regulatory reform agenda focusing on mitigating systemic risk posed by OTC derivatives practices. In 2011, the G20 requested the BCBS and IOSCO to develop a consistent global set of standards for uncleared margin requirements, culminating in the publication of a final framework in September 2013.

A key feature of the framework is the requirement for all financial firms and systemically important non-financial entities to exchange IM and VM to mitigate counterparty credit risk arising from OTC transactions.

The importance of the framework to the financial markets cannot be underestimated. The size of the uncleared universe is substantial, with a significant portion of the derivatives market not cleared due to lack of standardisation, liquidity and customisation. ISDA estimates the size of the uncleared market to be in the region USD127 trillion.¹

Framework objectives

The framework is designed to reduce systemic risks in the OTC derivative markets and provide firms with appropriate incentives for central clearing. It should be noted that the margin requirements are not meant to be regulations but rather a structure that provides guidance to national regulators in implementing the G20 commitments for uncleared derivatives. It achieves this through the articulation of key principles and requirements as outlined in the eight elements following.

8 key elements that the framework addresses

1. Appropriate margining practices should be in place for all derivative transactions that are not cleared by central counterparties (CCPs).
2. All financial firms and systemically important non-financial entities must exchange IM and VM as appropriate.
3. The methodologies for calculating IM and VM should be i) consistent across covered entities; and ii) ensure that all counterparty risk exposures are covered with a high degree of confidence.
4. Assets collected as margin should be highly liquid and should be able to hold their value in a time of financial stress (e.g. cash, government and central bank securities, corporate bonds, covered bonds, gold and equities).
5. Gross IM should be exchanged by both parties and held in such a way as to ensure that i) the margin collected is immediately available to the collecting party in the event of the counterparty's default and ii) the collected margin must be subject to arrangements that fully protect the posting party.
6. Transactions between a firm and its affiliates should be subject to appropriate regulation and in a manner consistent with each jurisdiction's legal and regulatory framework.
7. Regulatory regimes should interact to avoid any duplication in standards.
8. Margin requirements should be phased in over an appropriate period of time, between December 2015 and December 2019, to ensure appropriate transition.

Framework phase-in schedule

	Average notional at consolidated group ³	2014	2015	2016	2017	2018	2019
Exchange of IM (with EUR50m or USD36.7m threshold for covered entities)	>EUR3tr/USD2.2tr	Not required					
	>EUR2.25tr/USD1.65tr		↓				
	>EUR1.5tr/USD1.1tr			↓			
	>EUR0.75tr/USD0.55tr				↓		
	>EUR8bn/USD5.87bn					↓	↓
Exchange of VM by covered entity ²	Agreed as per private bilateral negotiation		Go-live 1 Dec 2015				

→ Indicates date of 1 December for each consecutive year.

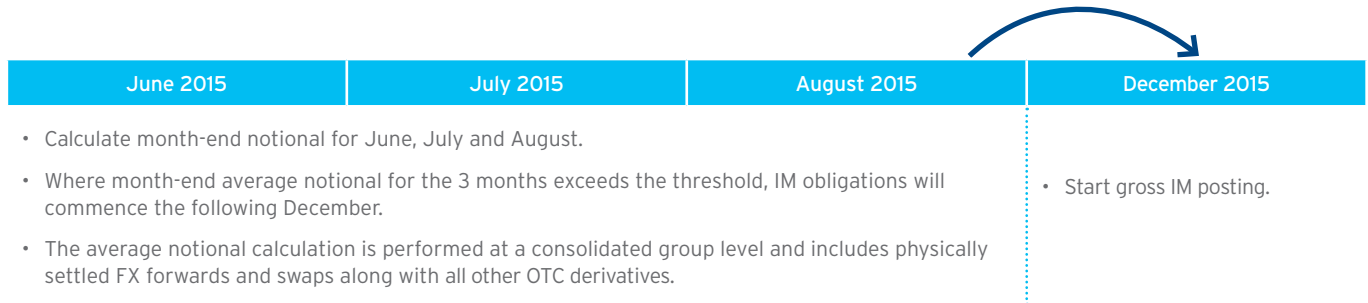
¹ Initial Margin for Non-Centrally Cleared Swaps: Understanding the Systemic Implications, ISDA November 2012.

² Exchanging VM between covered entities only applies to new contracts entered into after 1 December 2015; contracts entered into prior to 1 December 2015 will be subject to bilateral agreement.

³ All outstanding transactions will be included in the IM calculation.

Example of IM start date: calculation timeline

The timeline below illustrates the steps required to determine the start date of gross IM obligations.



Framework timelines

The framework will be phased in over a number of years to allow market participants sufficient time to adjust to the requirements. The Key VM and IM requirements:

Variation margin

All covered entities will be required to exchange variation margin on new contracts entered into after 1 December 2015.

Initial margin

IM will be phased in over a four-year period, beginning in December 2015. Participants with a derivatives portfolio over EUR3 trillion/USD2.2 trillion will be first, finishing in 2019 with portfolios of EUR8 billion/USD5.87 billion in size.

Framework implementation

National regulators will be tasked with translating the framework into a series of rules that will become binding for market participants.

The expectation is that US regulators will work to issue final rules in the coming months. In Europe, the standards will be implemented in EMIR via supplementing rules called Regulatory Technical Standards (RTS), which will be drafted by the European Securities and Markets Authority (ESMA) and approved by the EU Commission. While there is a risk of regulatory arbitrage, the expectation is that both organisations will work closely together to ensure a harmonised set of legislation.

In APAC, national regulators are expected to align themselves with the framework principle to promote equivalent and comparable rules to other regulators. Detailed implementation approaches have not yet been defined at national levels given the effective time horizon for the rules. Nevertheless, the rules will be rolled out and become enforceable consistently with major western jurisdictions, limiting the room for arbitrage opportunities.

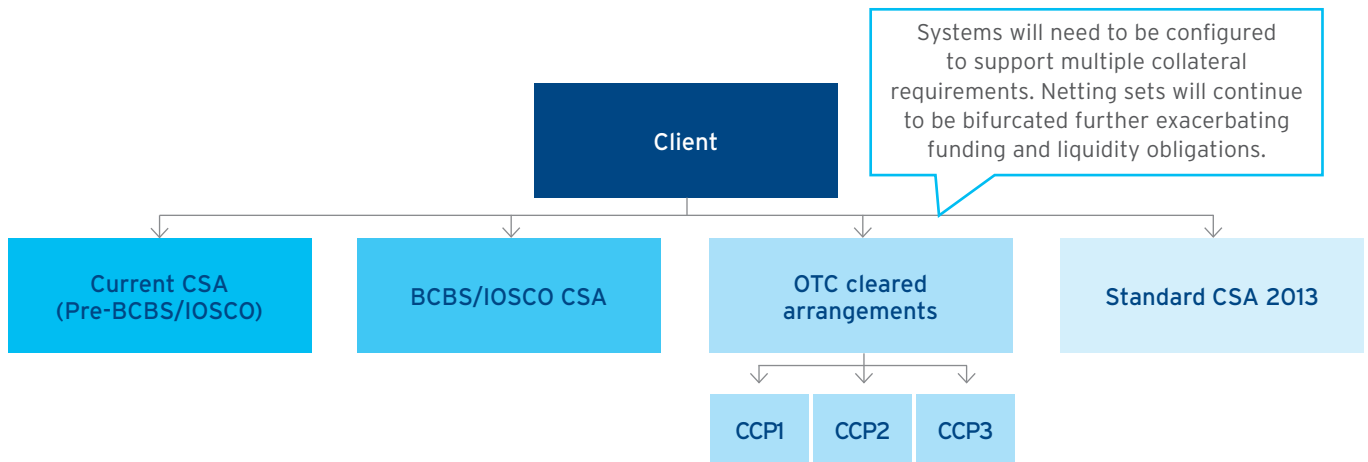
Key requirements

The table below outlines the key margin requirements that firms will need to support along with likely implications.

Elements	Key requirements	Impact	Implications
Scope of coverage - instruments subject to the requirements	<p>Initial margin (IM) and variation margin (VM) requirements apply to all trades except physically settled FX.</p> <p>Forwards and swaps subject to national guidelines or regulation.</p>	Low	<ul style="list-style-type: none"> • Many market participants do not collateralise short-dated FX. • Relatively simple to remove FX from exposure calculation. • FX market has already established industry-wide mechanisms to mitigate settlement risk through continuous linked settlement (CLS).
Scope of coverage - scope of applicability	<ul style="list-style-type: none"> • Applicable to all financial firms and systemically important non-financial entities. • Excludes central banks, sovereigns, multilateral development banks, BIS and non-systemic, non-financial firms. • VM to be collateralised on a regular basis (i.e. zero threshold and daily frequency). • Initial margin with a threshold not to exceed EUR50 million/USD36.7 million, applied at the consolidated group level of an entity. • Minimum transfer amounts not to exceed EUR500,000/USD367,215. • A minimum level of EUR8 billion/ USD5.87 billion of derivatives activity necessary for covered entities to be subject to the initial margin requirement. 	High	<ul style="list-style-type: none"> • Daily margining may be onerous for certain smaller firms as not all have infrastructure and capacity to manage daily collateral process. • Gross IM will have significant impact to funding, liquidity, systems and legal documentation. • Many buy-side portfolios are directional and will attract high IM requirements.
Baseline minimum amounts and methodologies for IM and VM	<p>A combination of standard- and/or model-based IM methodologies can be used</p> <ul style="list-style-type: none"> • The IM baseline should reflect a plausible increase in the mark-to-market consistent with a one-tailed 99% confidence interval over a 10-day horizon. • IM quantitative models are to be approved by the relevant supervisory authorities. • Quantitative IM models are subject to internal governance processes. • IM models may account for diversification, hedging and risk offsets within well defined asset classes such as currency/rates, equity, credit or commodities, but not across such asset classes and provided these instruments are covered by the same legally enforceable netting agreement. • Parties to derivative contracts should have rigorous and robust dispute resolution procedures. 	High	<ul style="list-style-type: none"> • Challenges in supporting the model-based approach may result in organisations using the less risk-sensitive standard approach resulting in increased margin requirements. • UCITS funds are required to have an independent valuation process, which may result in using the standardised approach for ease of calculation. • There are potential difficulties in resolving disputes where both parties are using different, prudentially approved models.

Elements	Key requirements	Impact	Implications
Eligible collateral for margin	<p>National supervisors are to develop their own types of eligible collateral that would generally include:</p> <ul style="list-style-type: none"> • Cash • High-quality government and central bank securities • High-quality corporate bonds • High-quality covered bonds • Equities included in major stock indices • Gold 	Medium	<ul style="list-style-type: none"> • The costs of assets considered eligible for collateral are like to increase significantly due to an increase in demand. • Firms may be increasingly reliant on transformation services given a shortage of eligible assets.
Treatment of provided initial margin	<p>The rehypothecation of customer collateral is permitted subject to restrictive conditions:</p> <ul style="list-style-type: none"> • Only permitted for hedging collector's derivatives position. • Can only be rehypothecated once. • Must be segregated throughout the chain. • Pledgor to be notified and protected against loss. • Customer collateral defined as buy-side/non-financial institutions. 	High	<ul style="list-style-type: none"> • Gross IM will result in a significant increase in funding requirements. • Significant legal documentation will be required to support new gross IM construct, including ISDA 2013 Account Control Agreement supporting the segregation of independent amounts for uncleared swaps with an independent third-party custodian.
Treatment of transactions with affiliates	Determining IM and VM requirements for transactions between affiliates should be the responsibility of local supervisors.	Low	Many organisations currently collateralise intragroup exposures to minimise regulatory capital requirements.
Phase-in of requirements	<p>VM requirements are effective 1 December 2015</p> <ul style="list-style-type: none"> • They are applicable to new contracts entered into after 1 December 2015. • Two-way IM with a threshold of up to EUR50 million/USD36.7 million will be phased in commencing in 2015. 	High	<p>Gross bilateral exchange of margin is not common market practice:</p> <ul style="list-style-type: none"> • Significant business, operational and technical complexities of posting IM need to be addressed on an industry scale. • There is limited time between the determination of whether parties are in scope and the go-live.

Bifurcation of netting sets



Organisational challenges

The Impact of two-way gross IM

Two-way margining will result in many OTC market participants making significant investments in their collateral infrastructures and capabilities. Given that two-way exchange is not common market practice today, the posting of IM between counterparties who have never done so is likely to be complex and require significant legal and operational analysis including:

- Collateral control agreements will need to be negotiated with third-party custodians. Connectivity to multiple custodians will be required to manage the segregated IM;
- New process and controls will be required to support the rehypothecation requirements;
- Systems will need to be configured to support the revised margin calculation and account segregation requirements. Many applications only support unilateral IM, not bilateral IM;
- Reporting will need to be significantly enhanced to track collateral assets and identify ultimate hypothecation beneficiaries.

Account control agreements (ACAs)

Segregated custody accounts will be required to hold cash and securities pledged as IM. Under the ACA, the custodian acts as an intermediary between the pledgor and the secured party, holding collateral in the name of the pledgor for the benefit of the secured party in a segregated custody account. While triparty agreements are not uncommon, added complexity will arise as both parties will need to have made arrangements to support the gross bilateral IM requirement, where:

- Substitutions will be more challenging to support given involvement of multiple parties.
- Enhanced reporting will be required to get visibility of collateral positions and collateral values.
- Connectivity to numerous custodians will be needed as each party will use their preferred custody arrangements.

Supporting multiple collateral arrangements

Many firms may be required to support multiple collateral arrangements per counterparty. Given the framework only applies to trades executed after 1 December 2015, organisations may need to support pre- and post-BCBS/IOSCO CSAs. This is likely as current CSAs are less punitive than those required by BCBS/IOSCO, resulting in organisations maintaining them for as long as possible. Moreover, the clearing obligation will require additional collateral arrangements, further increasing complexity.

Limited rehypothecation

While previous iterations of the framework did not permit rehypothecation, the final framework recognises the possible liquidity and funding impact of such a requirement. As such, the framework allows the rehypothecation of customer collateral, subject to restrictive conditions and only for the purpose of hedging customer positions. The definition of "customer" is limited to "buy-side" financial firms and non-financial entities, meaning that collateral collected by dealers or market makers in the interdealer market may not be rehypothecated.

Organisations will need to assess their business and technology models to ensure the rehypothecation requirements can be effectively supported. Developing mechanisms that ensure hypothecation compliance will be key.

Given the likely impact, what can organisations do now?

On a number of functions and disciplines across an organisation, a combination of technical, financial, operational and legal analyses will be required to accurately identify areas that will be most affected. Organisation should look to conduct the following initiatives:

Compliance date evaluation

Calculating the average notional size of current and future portfolios will provide an indication as to when organisations will need to comply with the framework.

Funding impact assessment

Organisations should calculate the size of exposure to be collateralised and the associated liquidity impact using the standard- and model-based approach to clearly understand best and worst case scenarios. This will determine whether alternative forms of funding, including transformation services are required.

Account control agreements feasibility study

Given that the ACA will support gross IM requirements, organisations need to understand the legal, technical and operational requirements to support such structures.

Custody arrangement evaluation

Depending on estimated compliance dates, an organisation should consider assessing its custodian's ability to support ACA and the gross segregation of IM.

Collateral tracking

Organisations should develop tools that identify and track collateral across locations, custodians and ultimately the beneficiaries of hypothecated collateral.

What can be concluded?

Supporting the final framework will require organisations to make considerable investments in their collateral infrastructure and technology. Furthermore, the liquidity, capital and balance-sheet implications generated by IM requirements will need to be understood and quantified and form part of an organisation's collateral strategy and decision-making.

Organisations will need to conduct assessments of their collateral functions and infrastructure to ensure they will comply and that take full advantage of the new margining framework.

Overview of rehypothecation framework

Rehypothecation of cash and non cash initial margin is permitted on a limited basis and subject to a number of restrictions. Cash and non cash variation margin may be rehypothecated.

Transaction

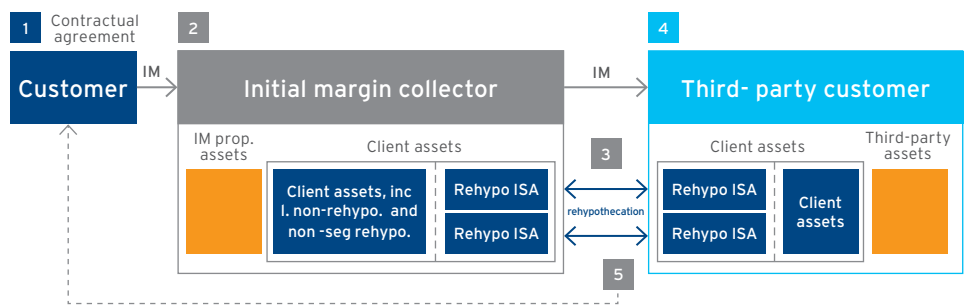
- 1 The customer gives their express consent in writing to rehypothecate, including the segregation option.
- 2 The IM collected from the customer is treated as a customer asset, and is segregated from the initial margin collector's proprietary assets.
- 3 The IM collector must require the third party to segregate IM from the assets of the third party's other customers, counterparties and proprietary assets, and must prohibit any further rehypothecation.
- 4 The third party must treat IM as customer assets, and segregate from the third party's proprietary assets.

Reporting and control

- 5 Where collateral is rehypothecated, the IM collector must notify the customer. Upon request and where IM is segregated, the IM collector must notify the customer of the collateral value rehypothecated.

- The IM collector and the third party must keep appropriate records to show compliance.
- Levels and volume of rehypothecation must be disclosed to the authorities to monitor risk.
- Appropriate controls required to ensure collateral use would only allow a one-time rehypothecation.

Only buy-side financial firms and non-financial entities collateral is permitted to be rehypothecated. Margin collected in the interdealer market may not be rehypothecated.



Key

Customer	"Buy-side" financial firm non-financial entity
IM Collector	Derivatives market maker
Third party	Third-party customer

----- Reporting and control
 _____ Collateral

How can Citi help?

OpenCollateralSM is Citi's open architecture collateral management solution designed to help clients optimise the way they use their collateral and help streamline the administrative and operational challenges of managing all types of collateral assets across multiple counterparties. OpenCollateral runs an integrated, exception-based margining process that uses automated communication methods to process margin calls in a timely way, identify margin discrepancies early and resolve portfolio reconciliation disputes. The result is that organisations that use OpenCollateral can navigate the regulatory landscape with greater control while they optimise how they manage their collateral.

Account control arrangements

Citi provides segregated custody accounts to hold cash and securities pledged as IM collateral under an account control arrangement. Segregated Collateral Custody Accounts help clients better mitigate counterparty risk, provide asset safety and improve collateral efficiency. Assets are held in Citi's custody, where Citi performs daily collateral services that incorporate a full eligibility and haircuts schedule. Citi system functionality ensures collateral can easily be identified, tracked and monitored, ensuring its full visibility when being rehypothecated and the safe-keeping of collateral assets.

Collateral optimisation

OpenCollateral also allows clients to smartly and effectively allocate assets to collateral pools, taking into account individual client preferences and quantitative parameters to optimise asset distribution across all collateral agreements. Those parameters include asset inventory and collateral available for rehypothecation, eligibility criteria on all margin types and counterparties and applicable haircuts. OpenCollateral can also support the rehypothecation of collateral and provide comprehensive reporting for all collateral activities to all parties.

Citi OpenInvestorSM is the investment services solution for today's diversified investor, combining specialised expertise, comprehensive capabilities and the power of Citi's global network to help clients meet their performance objectives across asset classes, strategies and geographies. With an on-the ground presence in over 95 countries and over USD13.9 trillion in assets under custody, Citi offers award-winning service and unmatched scale.

Citi also provides complete investment services for institutional, alternative and wealth managers, delivering middle-office, fund services, custody, and investing and financing solutions focused on its clients' specific challenges and customised to their individual needs.

For more information

Joseph Tomo
joseph.tomo@citi.com
+1 (212) 816 6951

Karim Chabane
karim.chabane@citi.com
+852 286 86233

Philip Forkan
philip.forkan@citi.com
+44 (0) 20 7986 4991

citi.com/securitiesandfundservices

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