The daily exchange of variation margin with zero thresholds will be here sooner than the initial margin rules for smaller buy-side institutions.

- If you are not exchanging collateral with your counterparties today, are you prepared to do so as early as March 2017?
- Do you have enough collateral to satisfy increasing margin calls?
- Are you prepared to deal with increased daily margin volume resulting from the potential of reduced minimum transfer amounts?
- Will you be able to cope with the inherent operational and settlement risks that will come along with the increase in margin movements and more stringent settlement times?
- How effectively can your current collateral technology support the new rules? If it cannot, what needs to change?
- How manual are your current processes around margin call issuance and collateral settlements? Can you automate these processes to prevent bottlenecks that will come with an increase in activity?
- Are you leveraging market utilities that are currently forming to bring the industry together to eliminate the shared challenges with collateral operations?

Are You Ready? Read on to learn how we can help you prepare.
SECTION 1:
THE NEW MARGIN RULES FOR UNCLEARED OTC TRANSACTIONS

INTRODUCTION:
The Basel Committee of Banking Supervision (BCBS) and the International Organisation of Securities Commissions (IOSCO) have jointly published a new margin framework for uncleared OTC swaps which, as adopted by national regulators, will result in a more demanding process for sourcing and managing collateral on a daily basis. Both sell-side and buy-side market participants will feel the impact of these regulations which will come into play for the largest institutions as early as the third quarter of 2016 in the US, Canada and Japan with the EU and Swiss rules expected to come into effect in early 2017. Business models will need to change, and investments will need to be made in resources to support the daily margin call process as well as the optimisation of collateral pools.

While the rules are being implemented in waves over the coming years, it is essential that all firms who trade uncleared OTC derivatives understand the impact to their particular business and are aware of the compliance deadlines now. Those firms that perform impact assessments on their business models today and begin planning for the changes and investments that will be required will be better positioned when the rules become effective for them.

It will take time and resources for all market participants to realign and in some cases retool their operating models to comply with the new rules, so many firms are already starting to prepare. To help with this preparation, we have created the following guide with a series of steps, self-assessment questions and supplemental resources that we hope will be helpful to you. As always, our teams are available to answer your questions and assist you along the way.

HIGHLIGHTS OF THE RULES:
Legal Regimes:
As of July 2016, Final Rules have been adopted by the US, Japan and Canada with Final Draft Rules in the EU expected to be finalised by December of this year. There are currently Consultation/Proposals in Singapore, Hong Kong, Australia, South Africa and India.
US Deadlines

Implementation Timeline

Summary of the Implementation Timeline for the Margin Requirements for Non-Centrally Cleared Derivatives

Covered entities belonging to a group whose aggregate average notional amount of non-centrally cleared derivatives exceeds:

<table>
<thead>
<tr>
<th>Initial Margin</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Phase 4</th>
<th>Phase 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&gt; $3 trillion</td>
<td>&gt; $2.25 trillion</td>
<td>&gt; $1.5 trillion</td>
<td>&gt; $0.75 trillion</td>
<td>&gt; $8 billion</td>
</tr>
<tr>
<td></td>
<td>Sept 1, 2016</td>
<td>March 1, 2017</td>
<td>Sept 1, 2017</td>
<td>Sept 1, 2018</td>
<td>Sept 1, 2019</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variation Margin</th>
<th>&gt; $3 trillion</th>
<th>All covered entities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>Phase 2</td>
<td></td>
</tr>
</tbody>
</table>

Source:
- BCBS IOSCO March 18th Press Release
- Requirements on initial margin only apply to new contracts entered after September 1, 2016

Product Coverage:
With some regional differences with regard to physically settled FX Swaps and Forwards, the new rules will apply to all uncleared derivatives transactions (unless a specific exemption applies). In the absence of equivalence decisions by the regulators to handle lack of harmonisation across jurisdictions, multiple and conflicting jurisdictional requirements could apply to the same transaction.

Entity Coverage:
Covered Swap entities and financial end-users under the US rules; financial counterparties and non-financial counterparties above the clearing thresholds under the final draft EU rules.

Collateral Exchange:
Market participants will now be required to exchange daily variation margin as well as bilaterally exchange gross initial margin.

IMPACT TO COLLATERAL DOCUMENTATION:
Credit Support Annexes:
Under the new regulations, separate credit support annexes (CSAs) may be required per margin regime. Firms with existing CSAs can either grandfather trades and maintain a legacy CSA or duplicate and amend the CSA to meet new margin requirements. The proposed ISDA CSA Protocol adherence will be broad, including counterparties that need to create an ISDA Master Agreement. CSAs will have minimum regulatory standards which must be met in their provisions, depending on the regulatory regime applicable to the counterparties.

Self-Disclosure Form:
A new self-disclosure process has been constructed by ISDA, intended to provide market participants with a standard form for providing counterparties with information necessary to determine their (i) affiliate group, (ii) compliance dates with the applicable margin rules, (iii) jurisdictional regime and (iv) entity classification. Firms will be required to fill this form out accurately and disclose to their counterparties prior to CSA set-up.
**Account Control and Pledge Agreements:**
Initial Margin Account Control Agreements will be put in place for all counterparties exchanging regulated initial margin. Initial margin collateral is required to be segregated from the proprietary accounts and books of the holder and with a third-party custodian.

**Cross-Border Impact:**
Differences in regulatory regimes across multiple jurisdictions will create documentation difficulties when transacting with foreign entities. In the absence of equivalence determinations, counterparties may well be subject to multiple sets of rules for the same transactions.

**IMPLICATIONS TO DAILY COLLATERAL PROCESSING:**

**Daily Exchange of Variation Margin:**
Under the new rules, there will be zero thresholds on variation margin and therefore a requirement to move collateral on a daily basis once minimum transfer amounts have been exceeded.

**Initial Margin Calculation:**
Initial margin calculation will be required daily (or other frequencies depending on jurisdictions) and bilaterally. Market participants can either: (i) adopt a regulatory schedule of add-on factors per asset type; (ii) apply an internal risk-model calculation to notional values which will need approval from their local regulator; or (iii) apply a third party / industry risk-model (ISDA SIMM) calculation to notional values.

**Margin Call Statements:**
ISDA has determined the minimum standards that must be included in future variation and initial margin call statements upon rule implementation.

**Collateral Eligibility:**
Collateral eligibility regulations will require new and more advanced validations. Collateral haircuts and wrong-way risk checks are mandated with additional credit quality and concentration limit checks in the EU. Wrong way risk and concentration limit rules will apply to groups of entities and groups of issuers.

**Initial Margin Segregation:**
Initial margin for new trades will be required to be segregated by both counterparties to an uncleared swaps transaction, with segregation at a third-party custodian. Firms will need to incorporate collateral held at third-party institutions into their collateral processing workflow.

**Settlement Windows:**
Under the new rules, collateral settlement windows are decreased and in most cases margin is required to be exchanged on a T+1 basis.
SECTION 2: WHAT SHOULD YOU BE THINKING ABOUT AND PREPARING FOR?

The following list of activities is intended to be used as a guide as you prepare for the new margin rules. It is not an exhaustive listing.

1. Review the margin rules for your regulatory jurisdiction to gain a full understanding of what is required and if you are currently trading in scope products. Links have been provided in Section 4 of this document for your convenience.
2. If you are in scope, consult your legal counsel to ensure that you will be able to comply with the new collateral margin rules when they come into effect.
3. Compute the AANA (Average Annual Notional Amount) for your consolidated affiliate group, i.e., you and your affiliates, for March, April, and May of 2016 to determine your compliance dates for IM and VM.
4. If you are a US financial entity, compute the AANA for your consolidated affiliate group for June, July and August of 2016 to determine if you have Material Swap Exposure.
5. Complete and exchange self-disclosure information with your counterparties. Provide an estimate to your counterparties of the year of the phased-in period in which you expect to cross the relevant AANA thresholds for compliance. If you are a US financial entity, disclose if you have Material Swap Exposure.
6. Review the ISDA Amend Self-Disclosure service and decide if your firm will use the service to complete and share self-disclosure information with your counterparties.
7. Put regulatory compliant credit support agreements in place with your counterparties.
8. Review the ISDA Amend Protocol service and decide if your firm will use the service to complete credit support agreements with your counterparties.
9. Decide which model you will be using for Initial Margin calculations, i.e., internal model or the ISDA SIMM Model, or whether you will be adhering to the Regulatory IM Schedule instead.
10. If trading globally, understand the cross-border impacts of the new rules to your relationships with counterparties in different jurisdictions.
11. Understand the impact of the increase in collateral requirements across both Variation and Initial margin. Where will you source this new collateral and what will be the cost?
12. Evaluate your current pledged collateral balances against what is eligible in your CSAs. Are you optimising your collateral pools and substituting to ensure you are pledging the cheapest to deliver collateral first?
13. The daily exchange of Variation margin with zero thresholds will be here sooner than the Initial Margin rules for smaller buy-side institutions. If you are not exchanging collateral with your counterparties today, are you prepared to do so as early as March 2017?
14. Will you be able to cope with the inherent operational and settlement risks that will come along with the increase in margin movements and more stringent settlement times?

15. Evaluate how effectively your current collateral technology can support the new rules. If they don't support them, what needs to change?

16. How manual are your current processes around margin call issuance and collateral settlements? Can you automate these processes to prevent bottlenecks that will come with an increase in activity?

17. Are you leveraging market utilities that are currently forming to bring the industry together to eliminate the shared challenges with collateral operations?

18. Are you prepared to deal with increased margin volume resulting from reduced minimum transfer amounts?

Note to Investment Managers: you must be prepared to assist your principal client with this analysis and undertaking these steps.
Market participants need to assess their current state in order to develop a comprehensive plan for achieving compliance and reducing risks while leveraging existing partnerships and services for scalable solutions. The following are typical assessments and are not intended to be an exhaustive listing.

<table>
<thead>
<tr>
<th>Entity Assessment</th>
<th>Operational and Compliance Assessment</th>
<th>Agreement Assessment</th>
<th>Operational and Technology Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Entity Analysis: Self-disclosure, in-scope affiliates, counterparties, check for new counterparties</td>
<td>• Trade Population: Allocation of in-scope trades to new CSAs</td>
<td>• Agreement Management: Bilateral vs ISDA protocol, setup regulatory CSAs per phase-in</td>
<td>• Operational Model: Front to back alignment including margin calls, dispute resolution, collateral segregation</td>
</tr>
<tr>
<td>• Jurisdiction: Entity and counterparty jurisdiction, location, specific margin and collateral rules</td>
<td>• Pricing/Funding: Funding implications of complying with margin regulations</td>
<td>• Eligible Collateral: Jurisdiction specific collateral eligibility, haircut computation, settlement timeframes</td>
<td>• Technology Capabilities: Outsourcing vs internal build vs integration with market utilities for exposure calculation, margin processing, dispute resolution, settlement tracking and reporting</td>
</tr>
</tbody>
</table>

Global regulatory reform is reshaping and redefining the way institutions are required to post margin, manage collateral and segregate assets.

Are You Ready?
### SECTION 4: REFERENCES AND RESOURCES

The following is not an exhaustive listing and is intended to be used as a guide as you prepare for the new margin rules. BNY Mellon cannot guarantee the accuracy of the information provided by these sources.

<table>
<thead>
<tr>
<th>Region</th>
<th>BCBS</th>
<th>Final Rule / Consultation Paper</th>
<th>Rule Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>BCBS-IOSCO</td>
<td>Margin Requirements for Non-Centrally Cleared Derivatives</td>
<td>Final</td>
</tr>
<tr>
<td>US</td>
<td>Federal Reserve, Prudential Regulator</td>
<td>Margin and Capital Requirements for Covered Swap Entities</td>
<td>Final</td>
</tr>
<tr>
<td>US</td>
<td>CFTC</td>
<td>Margin Requirements for uncleared swaps for swap dealers and major swap participants</td>
<td>Final</td>
</tr>
<tr>
<td>Australia</td>
<td>Australian Prudential Regulation Authority</td>
<td>Prudential Standard CPS 226: Margining and Risk Mitigation for Non-centrally Cleared Derivatives</td>
<td>Proposed</td>
</tr>
<tr>
<td>Canada</td>
<td>OSFI</td>
<td>Guideline on Margin Requirements for Non-Centrally Cleared Derivatives</td>
<td>Final</td>
</tr>
<tr>
<td>EU</td>
<td>European Banking Authority</td>
<td>Final Draft Regulatory Technical Standards on risk-mitigation techniques for OTC-derivative contracts not cleared by a CCP under Article 11(15) of Regulation (EU) No 648/2012</td>
<td>Final Draft</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Hong Kong Monetary Authority</td>
<td>Consultation Paper on Non-centrally Cleared OTC Derivatives Transactions – Margin and Other Risk Mitigation Standards</td>
<td>Proposed</td>
</tr>
<tr>
<td>Japan</td>
<td>Japanese Financial Services Agency</td>
<td>Publication of amendments to the “Cabinet Office Ordinance on Financial Instruments Business” and “Comprehensive Guidelines for Supervision” with regard to margin requirements for non-centrally cleared derivatives</td>
<td>Final</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Federal Department of Finance</td>
<td>Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading</td>
<td>Final (delayed to align with EEA timeline)</td>
</tr>
<tr>
<td>Singapore</td>
<td>Monetary Authority of Singapore</td>
<td>Policy Consultation on Margin Requirements for Non-Centrally Cleared OTC Derivatives</td>
<td>Proposed</td>
</tr>
</tbody>
</table>
SECTION 5: UNCLEARED OTC DERIVATIVE MARGIN REGULATIONS BY JURISDICTION

PRODUCT SCOPE, COUNTERPARTY SCOPE AND COMPLIANCE DATES
The information by country in the following grid is sourced from the regulations and rules listed in Section 4 and available as of the publication date of this document. This is not an exhaustive list and is intended to be used as a helpful guide. BNY Mellon shares the information published by these sources and cannot guarantee the accuracy of the information provided by each source.

<table>
<thead>
<tr>
<th>Country</th>
<th>Products</th>
<th>Counterparties</th>
<th>Compliance Dates</th>
<th>Initial Margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>All OTC Swaps: NDFs, FX options, interest rate derivatives, equity derivatives, credit derivatives. Physically-settled FX swaps and forwards are considered non-swaps and are therefore exempt. 1</td>
<td>Swap entities and financial end-users. Financial end-users include, but are not limited to, US or foreign banks, trust or fiduciary companies, an investment fund (including a private fund), insurance companies, a market intermediary or service provider (such as broker dealers and investment advisors). A covered swap entity need not collect any margin from commercial end-users, including treasury affiliates acting as agent, so long as the counterparty is using the uncleared swaps to hedge commercial risk, or qualifying small banks with less than $10bn in assets.</td>
<td>September 1, 2016 for all entities with an average aggregate notional amount (AANA) of all uncleared OTC transactions across their affiliate group exceeding $3tr for the months of March, April and May 2 of 2016; March 1, 2017 (All other entities) September 1, 2016 (AANA &gt; $3tr); September 1, 2017 (AANA &gt; $2.25tr); September 1, 2018 (AANA &gt; $1.5tr); September 1, 2019 (AANA &gt; $0.75tr); September 1, 2020 onwards (AANA &gt; $8bn).</td>
<td>September 1, 2016</td>
</tr>
</tbody>
</table>


2. This is the period for AANA calculation for all jurisdictions except where stated as different in this document.
<table>
<thead>
<tr>
<th>Country</th>
<th>Products</th>
<th>Counterparties</th>
<th>Compliance Dates</th>
<th>Variation Margin</th>
<th>Initial Margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td>All OTC Derivatives: Physically-settled FX swaps and forwards, NDFs, FX options, interest rate derivatives, equity derivatives, credit derivatives.</td>
<td>Financial counterparties and non-financial counterparties above the clearing threshold (NFC+). Non-financial counterparties below the clearing threshold (NFC-) are exempt. An NFC will be above the clearing threshold if its gross outstanding notional exceeds any of the following asset bucket thresholds: EQD &amp; CDS: €1bn; IRD &amp; FX: €3bn; or Commodities &amp; Other: €3bn.</td>
<td>Implementation schedule has not been finalised.</td>
<td>Implementation schedule has not been finalised.</td>
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<tr>
<td>Canada</td>
<td>All OTC Derivatives: NDFs, FX options, interest rate derivatives, equity derivatives, credit derivatives. Physically-settled FX swaps and forwards are exempt.</td>
<td>All federally regulated financial institutions (banks, foreign bank branches, bank holding companies, trust and loan companies, cooperative credit associations, cooperative retail associations, life insurance companies, property and casualty insurance companies and insurance holding companies); Covered Entities. A Covered Entity is defined as a financial entity belonging to a consolidated group whose aggregate month-end average notional amount of non-centrally cleared derivatives for March, April, and May of 2016 and any year thereafter exceeds CAD $12 bn. Sovereigns, public sector entities, multilateral development banks eligible for a zero risk weight in the Capital Adequacy Requirements (CAR) Guideline, the Bank for International Settlements and central counterparties are excluded from the definition of a Covered Entity.</td>
<td>September 1, 2016 (AANA &gt; CAD 5tr); March 1, 2017 (All other entities).</td>
<td>September 1, 2016 (AANA &gt; CAD 5tr); September 1, 2017 (AANA &gt; CAD 3.75tr); September 1, 2018 (AANA &gt; CAD 2.5tr); September 1t, 2019 (AANA &gt; CAD 1.25tr); September 1, 2020 onwards (AANA &gt; CAD 12bn).</td>
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<tr>
<td>Country</td>
<td>Products</td>
<td>Counterparties</td>
<td>Compliance Dates</td>
<td>Initial Margin</td>
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<td>------------------------------------------------------------------------------------------------------</td>
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<tr>
<td>Switzerland</td>
<td>All OTC Derivatives: NDFs, FX options, interest rate derivatives, equity derivatives, credit derivatives. Physically-settled FX swaps and forwards are exempt.</td>
<td>Margin requirements apply to all financial counterparties (banks, securities dealers, insurance companies, intermediaries, financial funds) and non-financial counterparties unless they are a small non-financial counterparty. Small non-financial counterparties are defined as having 30-day rolling averages for its gross positions below EQD &amp; CDS: CHF1.1bn; IRD &amp; FX: CHF3.3bn; or Commodities &amp; Other: CHF3bn.</td>
<td>Implementation schedule has not been finalised.</td>
<td>Implementation schedule has not been finalised.</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>All OTC Derivatives: NDFs, FX options, interest rate derivatives, equity derivatives, credit derivatives. Physically-settled FX swaps and forwards are exempt.</td>
<td>Type 1 Financial Instruments Business Operators, certain Registered Financial Institutions and specific banks as identified by the rule (&quot;covered Japanese entities&quot;). Registered Financial Institutions include banks, insurance companies, Shoku Chukin Bank, Development Bank of Japan, Shinkin Central Bank, Norinchukin Bank. Rules may also apply to foreign institutions and trust accounts who transact in OTC derivatives with such covered Japanese entities.</td>
<td>September 1, 2016 (AANA &gt; ¥420tr); March 1, 2017 (All other entities).</td>
<td>September 1, 2016 (AANA &gt; ¥420tr); September 1, 2017 (AANA &gt; ¥315tr); September 1, 2018 (AANA &gt; ¥210tr); September 1, 2019 (AANA &gt; ¥105tr); September 1, 2020 onwards (AANA &gt; ¥1.1tr).</td>
<td></td>
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<tr>
<td>Country</td>
<td>Products</td>
<td>Counterparties</td>
<td>Compliance Dates</td>
<td>Initial Margin</td>
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</tr>
<tr>
<td>Hong Kong</td>
<td>All OTC Derivatives: Physically-settled FX swaps and forwards, NDFs, FX options, interest rate derivatives, equity derivatives, credit derivatives. Physically-settled FX swaps and forwards are exempt from initial margin but not variation margin.</td>
<td>Hong Kong incorporated authorised institutions (&quot;AI&quot;) (irrespective of where trades are booked) and overseas incorporated AIs (with respect to trades booked in its Hong Kong branch only) will be subject to margin requirements when they enter into in-scope non-centrally cleared OTC derivatives with a covered entity. A covered entity means a financial counterparty, a significant non-financial counterparty, or another entity as designated by the HKMA. Sovereign entities, central banks, public sector entities, multilateral development banks and the Bank for International Settlements are exempt.</td>
<td>Implementation schedule has not been finalised.</td>
<td>Implementation schedule has not been finalised.</td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td>All OTC Derivatives: NDFs, FX options, interest rate derivatives, equity derivatives, credit derivatives. Physically-settled FX swaps and forwards are exempt.</td>
<td>Monetary Authority of Singapore (MAS) covered entities are banks licensed under the Banking Act (&quot;commercial banks&quot;); merchant banks approved as financial institutions under Section 28 of the MAS Act; and other licensed financial institutions, conducting regulated activities under the Securities &amp; Futures Act (&quot;SFA&quot;). MAS is also considering whether to require investment funds domiciled in Singapore to comply.</td>
<td>Implementation schedule has not been finalised.</td>
<td>Implementation schedule has not been finalised.</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>Products</td>
<td>Counterparties</td>
<td>Compliance Dates</td>
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<td>---------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>All OTC Derivatives: Physically-settled FX swaps and forwards, NDFs, FX options, interest rate derivatives, equity derivatives, credit derivatives. Physically-settled FX swaps and forwards are exempt from initial margin but not variation margin.</td>
<td>Margin requirements apply to transactions which are booked in the accounts of an Australian Prudential Regulatory Authority (APRA) covered entity. APRA covered entities are defined as domestic and foreign authorised deposit-taking institutions (ADIs), including a foreign ADI, and an authorised banking non-operating holding company (NOHC); a general insurer, including a Category C insurer, and an authorised insurance NOHC; a life company, including a friendly society and an eligible foreign life insurance company (EFLIC), and a registered life NOHC; and a registrable superannuation entity (RSE) in respect of their business operations.</td>
<td>Implementation schedule has not been finalised.</td>
<td>Implementation schedule has not been finalised.</td>
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</tbody>
</table>
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