



The finest resources, assembled.

Your Guide to the Non-Cleared
Margin Rules



US EDITION



An Introduction to the Non-Cleared Margin Rules

A seismic change is underway in global financial markets.

Requirements to post initial margin (IM) and variation margin (VM) on non-cleared over-the-counter derivative trades are being implemented in many of the world's major economies.

This change presents a number of funding, legal, operational and compliance challenges for derivatives market participants. These include:

- 1.** Obtaining a range of high-quality securities to post as margin
- 2.** Calculating and responding to margin calls
- 3.** Appointing an independent third party at which to custody the assets
- 4.** Ongoing VM requirements and position monitoring

Non-Cleared Margin Requirements – A Primer

In the wake of the global financial crisis, finance ministers from the G20 countries met in Pittsburgh in 2009 and committed themselves to reforming the OTC derivatives market.

Ministers agreed to two major reforms: The first was that standardized derivatives would be cleared at central counterparties (CCPs) in order to mitigate the counterparty credit risk presented by bilateral trading.

The second was that non-standardized derivatives unsuitable for central clearing could remain bilaterally traded, but would be subject to IM and VM requirements in order to protect each counterparty from the failure of the other.

In the following years, this broad outline was further developed and fleshed out by BCBS-IOSCO and ultimately adopted as binding regulation by market supervisors in Australia, Canada, the European Union, Hong Kong, Japan, Korea, Singapore, Switzerland and the United States.



According to data gathered by the International Swaps and Derivatives Association (ISDA) and the Securities Industry and Financial Markets Association (SIFMA), the industry estimates that it could face thousands of newly in-scope counterparties and new relationships in the final two phases.¹

¹ Initial Margin for Non-Centrally Cleared Derivatives: Issues for 2019 and 2020, ISDA and SIFMA, July 2018.

Am I REQUIREMENTS Included?

Undoubtedly the biggest question market participants have to ask themselves regarding the non-cleared margin rules is: Am I included?

Determining whether you are in-scope is based on whether your average aggregate notional amount (AANA) of non-cleared OTC derivatives exceeds a certain threshold over a certain period of time.

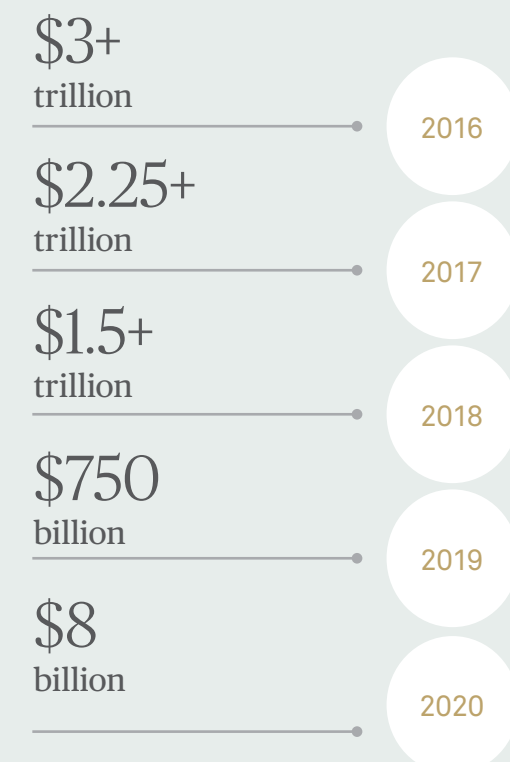
The phase-in of these requirements began in 2016 and continues through 2020, with thresholds dropping during each phase to expand the obligation to post IM to a sequentially larger group of derivatives market participants.

The first three phases in 2016, 2017 and 2018 primarily captured the largest banks and broker-dealers. The majority of buy-side firms are to be captured in 2019 and 2020.

The US² thresholds for being required to post margin on bilateral trades are as follows:

Notional Derivatives Exposure

TIP:
Please note a \$50 million minimum threshold applies before margin posting requirements take effect under US regulation. If running a managed account structure, subfunds rolling up to one legal entity (a superfund) calculate your \$50 million exposure on an aggregated basis.



² A similar phased approach is applicable in the EU using different thresholds. In APAC, different thresholds are used and only some jurisdictions apply the phase-in approach. Please consult the applicable roles in your home jurisdiction to determine notional threshold for inclusion in your domestic market.

Non-Cleared Derivatives: What's In?

Crucial to determining if your firm is impacted is knowing which non-cleared OTC derivative instruments are subject to the new IM rules. Although not an exhaustive list, below are some of the derivatives contracts subject to the requirements:

Non-Cleared OTC Derivatives

1. Single-Name Credit Default Swaps and Narrow Credit Default Swap Indices
2. Currency Swaps¹
3. Cross-Currency Swaps
4. FX Options and Non-Deliverable Forwards (NDFs)²
5. Total Return Swaps
6. Equity Swaps, Equity Forwards and Equity Options³
7. Variance Swaps and Volatility Swaps
8. Inflation Swaps and Swaptions
9. Commodity Swaps

¹ Under both the EU and US rules, AANA is calculated without regard to the exemptions provided for certain products. The notional amount of outstanding physically settled FX forwards, FX swaps and currency swaps is included in the AANA calculation, but is not included in the IM requirement calculation.

² US regulators have stated their intention to make NDFs the next mandatorily cleared derivative contract, but had not done so at time of writing.

³ Equity options (single stock or index only) are temporarily exempt under EU requirements until January 4, 2020.

Are You Captured?

1.

Is your trading entity domiciled in an in-scope country or region?

HINT: These jurisdictions are Australia, Canada, the European Union, Hong Kong, Japan, Korea, Singapore, Switzerland and the United States.*

YES

Calculate your group AANA number to see if you are above the threshold.

NO

You may be captured depending on the jurisdiction of your counterparty and if you are above the threshold.

2.

Does your trading entity use non-cleared derivatives?

HINT: These contracts may include some of the most common non-cleared OTC instruments listed on the opposite page, although this list is not exhaustive.

YES

Calculate your group AANA number to see if you are above the threshold.

NO

You are not captured.

3.

Does your corporate group – including the parent company, as well as all subsidiaries and affiliates – have consolidated notional non-cleared derivative balances exceeding the compliance threshold?

HINT: You can find the applicable AANA thresholds by year on page 3, but for 2019 the threshold is \$750 billion in notional amount, while in 2020 the threshold falls to \$8 billion.

YES

You may be captured.

NO

You are not captured.



If the answer to all three of these questions is yes, it's time for you to learn more about the forthcoming margin requirements and what they will mean for you and your business.

These questions are relevant under the US rules. Similar but different questions will be relevant in the EU and APAC.

* Cayman-based funds will be captured under the non-cleared margin rules.

Non-Cleared Margin Rules

Whether you are a collateral provider or a receiver, we have the tools to equip you for success.

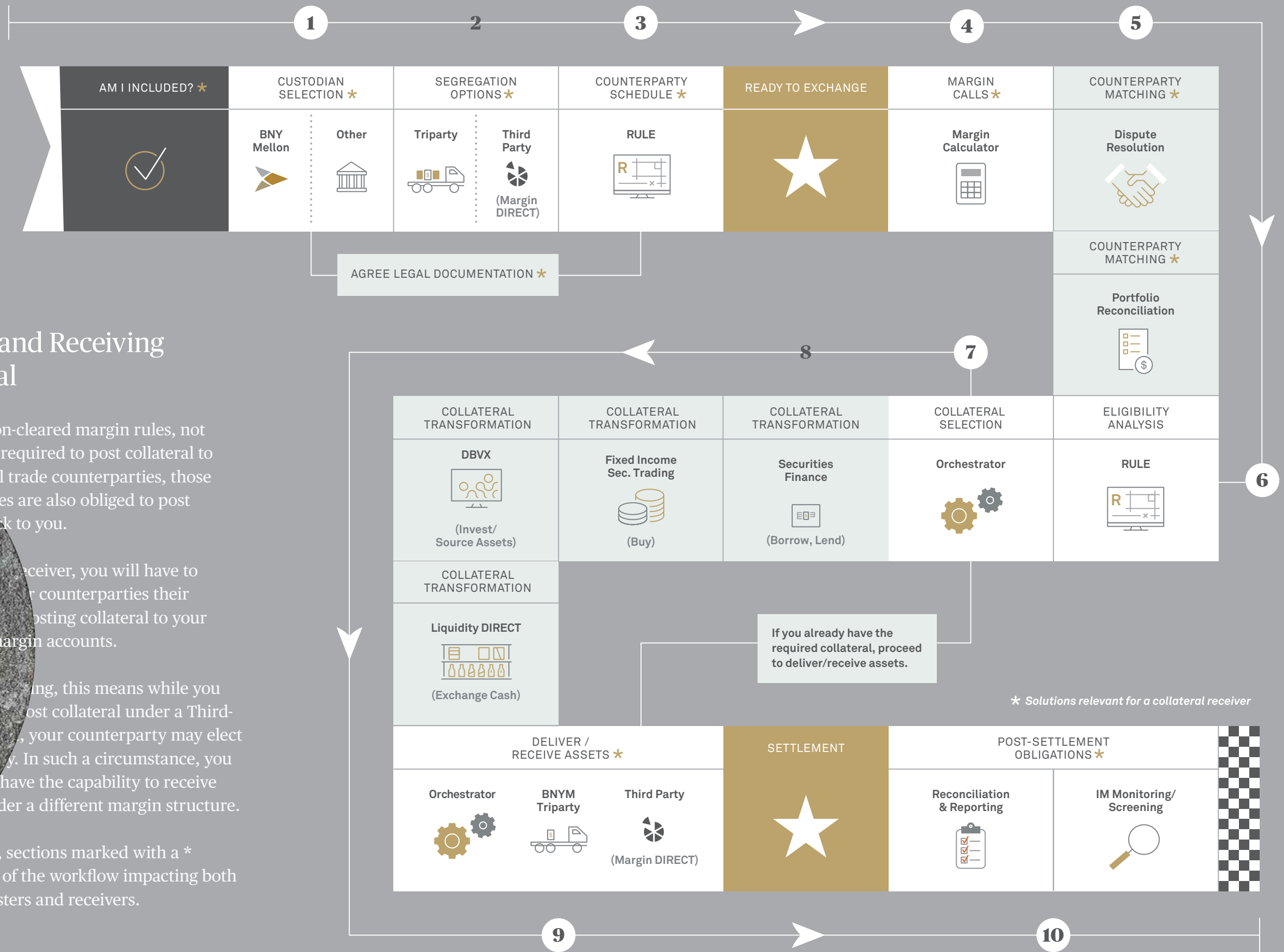


OPEN

Complex obligations require innovative solutions. That's why BNY Mellon has assembled this comprehensive suite of tools and resources to enable our clients to meet this important regulatory mandate.



Start



Posting and Receiving Collateral

Under the non-cleared margin rules, not only are you required to post collateral to your collateral trade counterparties, those counterparties are also obliged to post collateral back to you.

As a collateral receiver, you will have to ensure that your counterparties their collateral to your segregated margin accounts.

When posting, this means while you are required to post collateral under a Third-Party structure, your counterparty may elect to use a different margin structure. In such a circumstance, you will not have the capability to receive collateral under a different margin structure.

In this guide, sections marked with a * denote parts of the workflow impacting both collateral posters and receivers.

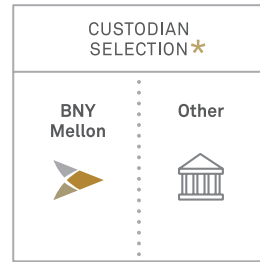


FIRST STAGE

Pre-Trade

-
1. Choosing Your Custodian
 2. Your Segregation Options
 3. Counterparty Collateral Schedule
- Legal Documentation





1. Choosing Your Custodian*

After you determine that your firm will be in-scope, the first step on your journey to non-cleared margin compliance is the selection of your custodian. It's a critical decision.

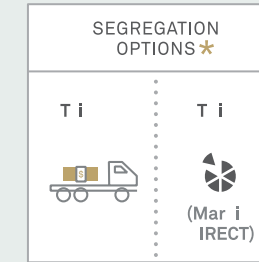
Although primarily responsible for holding margin assets you will post against bilateral trades, your custodian is much more than a simple segregation agent.

As such, below are a few key questions to consider.

Can Your Custodian...

1. Help you manage the IM required on your non-cleared trades?
2. Issue and respond to margin calls?
3. Instruct the movement of collateral to and from your counterparties?
4. Resolve collateral disputes?
5. Provide analytics on the optimal securities to post as margin?
6. Monitor securities posted for eligibility requirements?
7. Transform cash or ineligible securities into acceptable collateral?
8. Provide ongoing portfolio monitoring, maintenance and reporting?

*Applies to both collateral receivers and providers

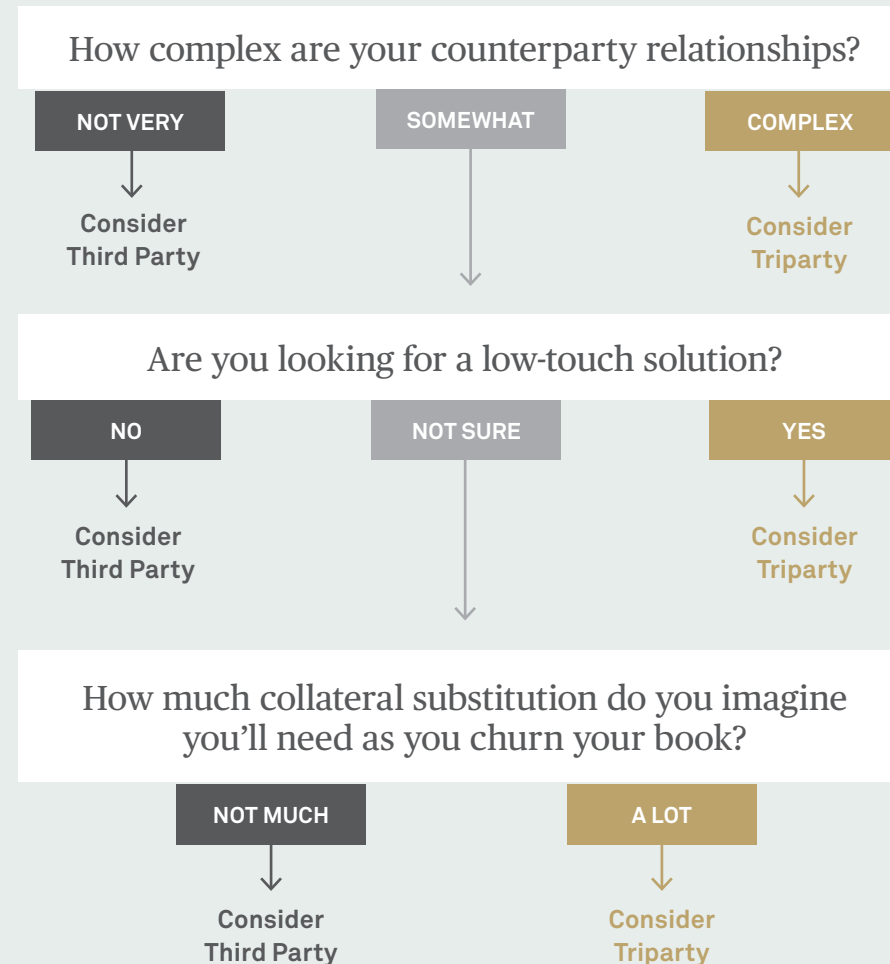


2. Your Segregation Options*

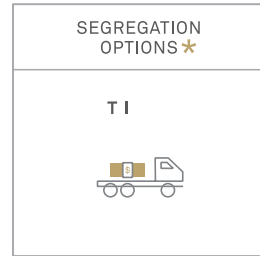
Once you've selected your custodian, we will work with you to determine the type of segregation account that will be best for your individual circumstances.

We provide two segregation structures: Triparty segregation and Third Party segregation. In a nutshell, Triparty provides a high degree of automation while Third Party allows you to take a more hands-on approach. Which one is right for you?

TIP: It's important that you understand your counterparties' preference for receiving collateral in addition to your preferences for posting collateral.



*Applies to both collateral receivers and providers



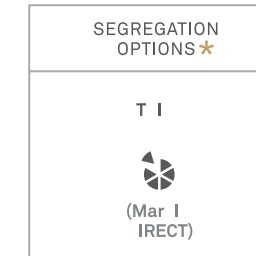
2A. Triparty Segregation*

Triparty is a low-touch option. It maximizes efficiency and flexibility for collateral pledgors by outsourcing many of your day-to-day margin segregation responsibilities. This makes the account structure particularly suitable for portfolio managers running multiple funds with complex allocation requirements.

What does Triparty give you?

1. Makes full use of your available collateral with automated selection and allocation of assets.
2. Applies collateral to the full extent of the regulatory permissions based on the defined terms of the collateral schedule.
3. Aligns with regulatory guidelines applying variable rules related to haircuts and concentration limits.
4. Avoids counterparty collateral pricing disputes, with BNYM acting as both parties' pricing agent.
5. Sets your optimization rules to allocate assets in line with your business preferences.
6. Eliminates need to instruct movements of collateral and monitor settlement with each allocation.
7. Feeds reporting data straight through to your internal systems via mediums such as SWIFT or FTP/CSV.
8. Uses legal documents, including the Account Control Agreement (ACA), drafted to align with regulatory guidance.

TIP: Avoid wrong-way risk: Triparty segregation screens all collateral to ensure that you do not post securities related to your institution to your counterparties.



2B. Third Party Segregation*

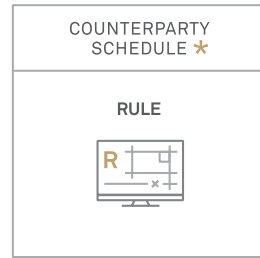
Our Third Party margin segregation model allows you to take a more direct role in the management of your collateral and has traditionally proved a more popular choice for institutions that have fewer securities and trading relationships.

The construct fully supports the segregation (pledge) of your collateral when you are posting in favor of your counterparty.

What does Third Party give you?

1. Aligns to the established process of bilateral collateral management, allowing you to make the selection and instruction of single line securities to and from the pledge account.
2. Confidence that you are using a process established for over 10 years, specializing in the segregation of Independent Amount, which is akin to non-regulatory IM.
3. Acts quickly and with clarity during a time of counterparty default, making use of the Electronic Notice Platform (ENP) to exchange legal notices.
4. Ideally suited to the use of government bonds, money funds and cash as pledged collateral where local regulations permit.
5. Uses legal documents, including the Account Control Agreement (ACA), drafted to align with regulatory guidance.
6. Controls the posting and release of collateral via online tools or SWIFT to agreed standards.

TIP: Unsure of which of these options to go for? We can help you to determine which solution may best suit your needs. You may, however, use both options depending on which solution your counterparty chooses. We can help you manage the process when you need to connect to various platforms.



3. Counterparty Collateral Schedules*

Usually your next step is to set up your eligible collateral schedules, which specify the types of collateral you are willing to accept from counterparties and vice versa.

In general, collateral schedules require negotiation, typically around the acceptability of the asset itself, particularly if parties wish to make collateral eligibility more restrictive than provided for under the relevant regulatory regimes.

RULE

RULE¹ is BNY Mellon’s online collateral schedule platform through which you can quickly and easily specify the types of assets you are willing to post as collateral and delineate those preferences by counterparty.

Using RULE, the process of setting up your margin schedules will be reduced to four simple steps:

1. Define your collateral eligibility criteria.
2. Negotiate schedules with your counterparties online and receive feedback in real time.
3. Electronically agree and confirm your collateral schedules.
4. You’re approved. It’s that simple.

TIP: Generally, IM will be requested in the form of highly-rated securities such as government bonds, corporate bonds and, to a smaller degree, major equities/equity indices. VM is generally posted in cash.

TIP: While regulations determine the type of securities that counterparties may utilize, many firms put additional restrictions in place based on internal risk control policies.

*Applies to both collateral receivers and providers

¹ Coming soon.

Legal Documentation*

An extremely time-consuming element of readiness is agreeing to and executing the necessary legal documentation.

The paperwork takes time for three main reasons:

1. Identifying and prioritizing the counterparties with which you will need to establish segregated accounts.
2. Establishing templates with your custodian and circulating, negotiating and executing on those agreements.
3. Dealing with multiple custodians across your trading counterparts.

Below are the documents central to getting you started on this journey.

Custody Agreement (applies to providers only)

If you are not an existing client of a custodian, you’ll be required to sign a Custody Agreement. This document simply establishes your market account (sometimes referred to as a long-box) into which your unencumbered assets will be delivered. It is a basic agreement to set up a custody account and is negotiated between the custodian and you, the client.

TIP: Much like any contract, when negotiating ACAs and ECSs, deviating from the standard language can add significant time to the execution and onboarding process.

Account Control Agreement (ACA)

An ACA establishes your collateral segregation account between you, your counterparty and your custodian. Collateral is posted into this account via your long-box. Both Triparty and Third Party models utilize an ACA as the governing segregation account document.

Eligible Collateral Schedule (ECS)

An ECS is simply the collateral schedule (as described on the previous page) that states what assets you are going to be able to post to your counterparties, along with applicable haircuts and concentration limits.

Security Agreement

The Security Agreement provides the custodian with security for supporting you as a collateral provider in Triparty. The agreement applies to your unencumbered assets that will not be allocated to the segregation account, but does not apply to assets that have already been allocated to your counterparty.

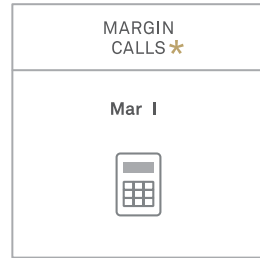
*Applies to both collateral receivers and providers



SECOND STAGE

Ready to Exchange

-
4. Margin Calls
 5. Counterparty Matching
 6. Eligibility Analysis
 7. Collateral Selection
 8. Collateral Transformation
 9. Delivering and Receiving Assets



4. Margin Calls*

Congratulations — you’ve successfully executed your first non-cleared derivatives trade. Now it’s time to post IM to your counterparty.

While you may have previously posted VM, this is an entirely new level of complexity.

Let’s begin.

Whether you receive a margin call from a counterparty or you issue the margin call, you’ll need a means to calculate the IM required on the trade.

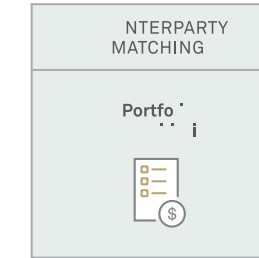
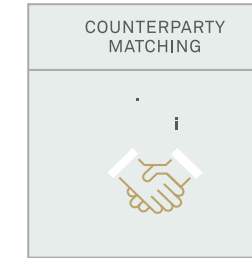
The most commonly used IM calculation methodology is the ISDA Standard Initial Margin Model — or SIMM — which calculates IM based upon a range of factors and weightings.

While the largest derivatives banks have developed their own regulator-approved SIMM methodologies, the complexity of developing these models means it’s unlikely you’ll be doing the same.

Margin Calculation: What are the options?

1. **Develop your own SIMM** — as previously mentioned, a complex and time-consuming process requiring regulatory approval.
2. **Use the grid** — Regulators have formulated a grid to look up margin requirements based on a percentage of notional derivatives exposure, but these percentages are not risk sensitive and can generate higher margin requirements than the SIMM.
3. **Outsource to a service provider** — this is perhaps the most obvious solution. Established outsourcing providers can take trade details and compute SIMM calculations for you.

*Applies to both collateral receivers and providers



5. Counterparty Matching*

You’ve received an IM call from your trade counterparty and you — or your collateral administrator — run a calculation to verify whether you agree in full or partially.

If you are in only partial agreement on the margin call, a dispute resolution process only begins to reconcile the non-agreed amount.

Dispute Resolution

Dispute resolution is the process of figuring out where your margin calculation diverges from that of your counterparty.

In a dispute resolution, the parties examine each of the data inputs going into the IM calculation (e.g., risk sensitivities) to find where discrepancies arise. Once identified, both parties work to agree on what the correct inputs should be.

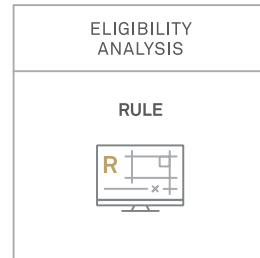
Portfolio Reconciliation

With the margin call dispute resolved, the trade can move into portfolio reconciliation, and both parties can progress to collateral selection.

TIP: Resolving margin call disputes can be completed by independent reconciliation agents with access to the SIMM models of both trade counterparties.



*Applies to both collateral receivers and providers



6. Eligibility Analysis

The time has come for you to select the collateral you intend to post as IM.

Verifying which assets your counterparty will accept as collateral is the first step.

You have already done most of the hard work because you have negotiated Eligible Collateral Schedules with all of your derivatives trading partners. Now that work pays off, as you know what securities they are willing to accept, the haircuts you are obliged to apply and any concentration limits that you have to adhere to.

By comparing the eligible collateral assets in the schedule with the unencumbered securities you have sitting in your custody account, you can determine the range of potential assets you have available to post as margin.

All that's left to do is choose which securities you wish to use.

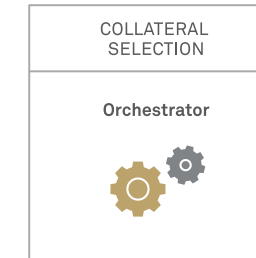
TIP: Non-cleared margin rule requirements vary by jurisdiction. Please consult your domestic regulator for eligible collateral standards in your home market.

How RULE can help

RULE¹ can make this process even more efficient.

With all your margin eligibility requirements already loaded onto the platform electronically, RULE can dynamically simplify the process of cross-referencing the securities you have available against the securities your counterparty is willing to accept.

And with RULE's interoperability with BNY Mellon's Orchestrator (see next page), not only can you quickly find the assets your counterparty will take, but you can also find the securities that are most optimal for you to post.



7. Collateral Selection

You should look at collateral selection as an opportunity. It is not simply about finding and posting any acceptable securities — it's about choosing the right assets to minimize the performance drag that the regulations may introduce on your portfolio.

Are you posting the most suitable assets as collateral, or could those securities be put to better use elsewhere?

When determining what to post, you can prioritize based on factors such as which securities are cheapest to deliver or hardest to utilize, what other obligations you may have and if you can earn incremental yield on assets by lending them out through securities finance.

In making informed decisions concerning these matters, Orchestrator can help.

Optimizing Your Collateral with Orchestrator

Orchestrator¹ is our online collateral optimization tool that enables you to efficiently manage your collateral balances and processes in four easy steps:

1. **Eligibility:** Screen your portfolio of existing assets for their potential use as margin.
2. **Scenario Analysis:** Determine the most suitable securities to post as collateral, stress test your margin liabilities and identify new opportunities to fund your inventory.
3. **Optimize:** Use this analysis to meet your margin obligations and regulatory requirements in optimal fashion.
4. **Settle:** Automatically generate instructions to deliver, substitute and recall assets with all of your counterparties.

With Orchestrator, minimize the drag, maximize your efficiency.

¹ Currently in development.

8. Collateral Transformation

You may find that you don't have the required collateral securities or there may be a more effective combination of assets you can post to meet your margin obligations.

This is where collateral transformation can prove invaluable in helping you meet your requirements. There are generally three ways of transforming your collateral: borrow, buy or source. Let's take a closer look at two of those options.

1. **BORROW:** Utilize the securities finance market to borrow the assets to meet your margin requirements.
2. **BUY:** Purchase eligible securities by transacting through fixed income and equities trading desks.
3. **SOURCE, EXCHANGE, INVEST:** Participate in all-to-all marketplaces to exchange cash and collateral with both traditional liquidity providers and non-bank peer institutions. Alternatively, invest cash balances in money market funds through our Liquidity DIRECT portal.¹

From Segregation to Transformation: The Benefit of Doing Everything in One Place

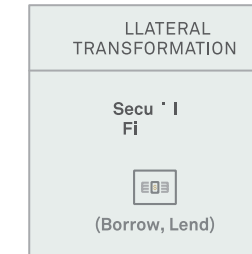
Risk Reduction: We can swiftly and efficiently transform collateral assets and help you meet your margin obligations, reducing your counterparty and transit risk.

Streamlined Process: Utilizing a single in-house process means your assets move simply from your custody account to our securities lending desk before the transformed assets are posted back to your custody account.

Global Footprint: Our global footprint enables us to transform collateral into a variety of different instruments, including a range of sovereign bonds (US Treasuries, Bunds, Gilts, JGBs, OATs, etc.), money market funds, ETFs and more.

Rapid Transformation: Collateral transformation can be achieved in a matter of minutes, with the transformed assets posted to your custody account within an hour.

Same-Day Settlement: The speed of our internal processes means BNY Mellon is able to transform assets later in the trading day — up to 1pm in your local market — especially useful in jurisdictions where same-day settlement is a regulatory requirement.



Collateral Transformation: Borrow

BNY Mellon administers one of the largest and most sophisticated agency lending programs in the market today. You could not be in better hands if you are seeking to transform assets into eligible collateral through securities finance. The process is swift and straightforward.

A Closer Look

If requested, our securities finance team can transform the assets in your custody account to meet your margin requirements.

1. As an example, you, working with our team, identify a portfolio of corporate bonds that would be eligible for transformation.
2. With the benefit of our extensive agency lending program, the team will quickly locate asset owners who are eligible to exchange your highly-rated corporate paper for US Treasuries, subject to BNY Mellon credit and risk approval.
3. The Treasuries are posted into your custody account and then are pledged according to your instructions to your counterparty.
4. In this example, the US Treasuries are delivered into your custody account, which can be transferred to your counterparty in accordance with your instructions.
5. Margin has been exchanged. It's that simple.

TIP: Participation in our agency lending program need not only be for the purposes of borrowing assets. If you have an inventory of fixed income or equity assets available to lend out, securities lending can provide a valuable source of additional alpha.

Collateral Considerations

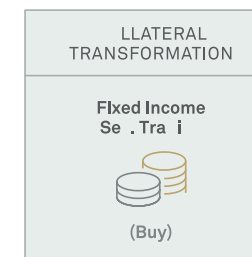
One of the most important decisions you'll face is the type of collateral you wish to post to counterparties on non-cleared derivatives trades. Here are some of your collateral options:

INSTRUMENT	PROS	CONS
Government Securities	<ul style="list-style-type: none"> • Readily available / wide range to choose from • Easy to apply within the regulations for IM • Acceptance under all collateral schedules 	<ul style="list-style-type: none"> • High-quality collateral comes at a cost
Money Market Funds	<ul style="list-style-type: none"> • Highly liquid • Ability for investors to select funds that only invest in regulatory-compliant assets (US Treasuries) • Short-term investment that can be directly allocated as collateral in a pledge account • Return on cash reinvested into the fund • Securitization and segregate cash, which is otherwise mostly ineligible 	<ul style="list-style-type: none"> • Not all money market funds accepted under the regulations • Haircuts can only be aligned if the assets underlying the fund are the same type (i.e., all US Treasuries)
Exchange-Traded Funds	<ul style="list-style-type: none"> • Highly liquid • Ability to invest in specialist collateral ETF instruments that are compliant with regulations 	<ul style="list-style-type: none"> • Subject to concentration limits and equity-level haircuts
Main Index Equity	<ul style="list-style-type: none"> • Readily available / wide range to choose from • Generally acceptable within the regulations for IM • Highly liquid asset class 	<ul style="list-style-type: none"> • Subject to concentration limits and equity-level haircuts • Hard to manage outside of Triparty platforms • Not widely accepted between market participants

In addition to the Government Securities, Money Funds and ETFs, the following securities are eligible in many of the regulatory regimes:

- Agency Mortgage Backed Securities
- Investment Grade Corporate Bonds
- Cash Equities

Eligible collateral requirements will vary by jurisdiction. Please consult your local regulation for applicable margin securities.



Collateral Transformation: Buy

If you have large cash balances but you don't have the collateral assets to post as margin, buying eligible securities may be the simplest way for you to meet your IM requirements.¹

In such instances, access to a full-service fixed income execution desk is an important requirement when considering your collateral management needs.

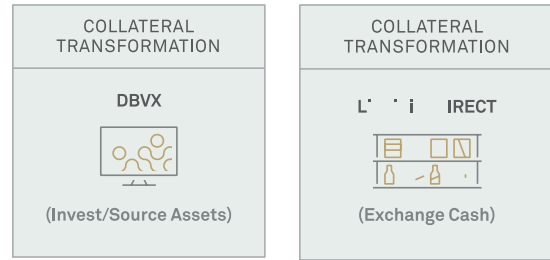
Our Fixed Income and Equities business is able to source and provide a wide range of credit securities and equity collateral that can meet your margin needs.

Fixed Income and Equity Products

1. Government Bonds (US Treasuries, JGBs, Bunds, Gilts, OATs, etc.)
2. US Agency Bonds
3. Corporate Bonds
4. Mortgage-Backed Securities
5. Commercial Paper & Institutional CDs
6. Brokered CDs
7. Municipal Bonds
8. Structured Products and MTNs
9. Preferred Equities
10. Exchange-Traded Funds
11. Options
12. Stocks

¹ Subject to investigating guidelines for counterparty in question.

TIP: Have a call with the appropriate product lead to learn more about your collateral transformation options.



Collateral Transformation: Exchange*

Peer-to-Peer Trading Venues

DBVX

DBVX is BNY Mellon's all-to-all cash and collateral marketplace. Here, you can transact directly with your peers, as well as with established market makers, to invest cash in exchange for securities that can be used to meet your IM requirements.

The platform enables you to extend or seek liquidity and collateral from the entire universe of market participants through a single portal and a single set of onboarding documents, allowing you complete control over the counterparties you wish to transact with and the terms at which you want to trade.

Whether you are a collateral giver, a cash investor or a collateral taker, DBVX provides a transparent and standardized marketplace in which you can source margin assets, generate yield or raise cash.

Money Market Funds

Liquidity DIRECT

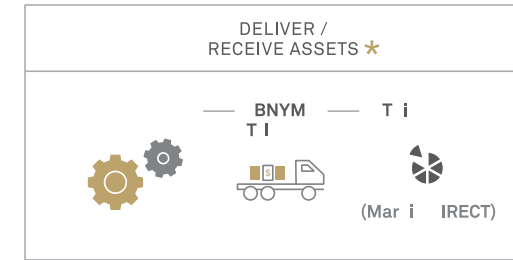
Liquidity DIRECT¹ is BNY Mellon's money market fund portal, where you can access a wide variety of money market instruments, with access to the most well-known fund names in the investment industry. The portal provides daily liquidity, while money funds can help preserve capital while maximizing yield.

As long as money market funds are eligible margin assets accepted by your counterparty, the instruments can be posted as simply as government bonds and other fixed income securities.

Liquidity DIRECT is also a venue for the reinvestment of cash received from counterparties in the form of variation margin.

¹Liquidity DIRECT® is not available in Japan.

*Applies to both collateral receivers and providers



9. Delivering and Receiving Assets*

The last step in the process is to physically deliver the margin securities to your counterparty's segregated account and to receive collateral from them on the other side of the trade.

Delivering Assets

In a Triparty model, you deliver unencumbered assets into your custodial long-box, from which point your segregation agent will take over with respect to allocating your assets into each segregated account you establish with your counterparties.

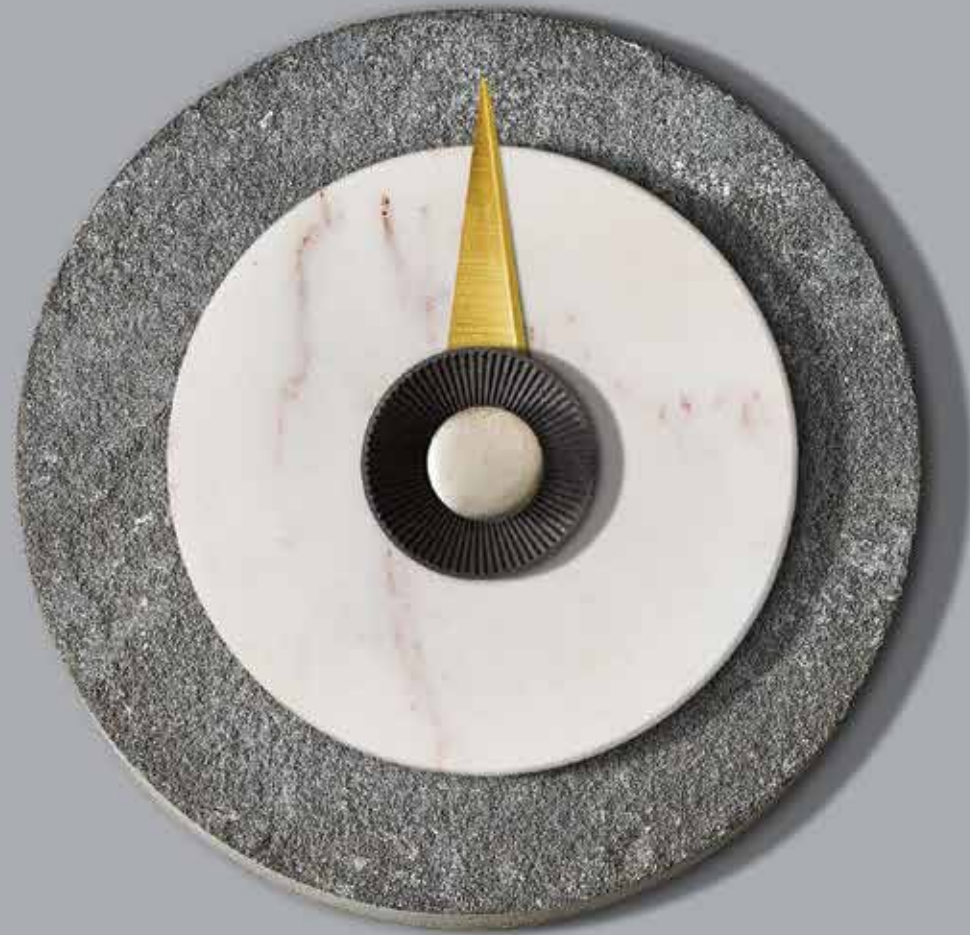
In a Third Party model, you will instruct the delivery of your unencumbered assets directly into each of your segregated counterparty accounts in lieu of a central long-box.

Receiving Assets

Your counterparty will instruct the same processes above to be carried out by its custodian or segregation agent.

Secured party receivers in BNY Mellon's Triparty architecture receive the benefit of our systems and teams conducting much of the ongoing position maintenance, including the screening of assets you have received from your counterparties to ensure they meet the eligibility requirement, haircuts and concentration limits detailed in your collateral schedule.

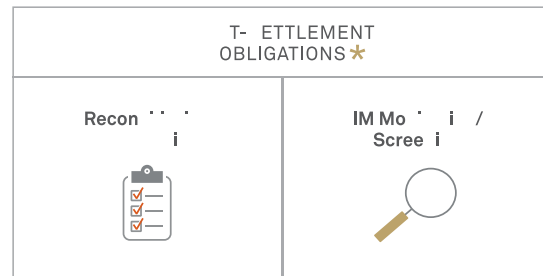
*Applies to both collateral receivers and providers



THIRD STAGE

Settlement

10. Post-Settlement Obligations
IM Monitoring and Screening



10. Post-Settlement Obligations*

TIP: Our post-trade collateral reporting provides you with allocation results and can be delivered in a variety of forms, including file transfers, SWIFT and access via BNY Mellon's client portal².

Reconciliation and Reporting¹

Settlement of a non-cleared trade does not represent the end of the workflow. Now that a live position exists between you and your counterparty, the trade will require daily monitoring and maintenance — as will every other OTC trade that you enter into. This could mean hundreds, if not thousands, of line items that need to be checked and verified daily.

The most important element of this screening process concerns the mark-to-market valuation of your trade and any supplementary IM payments that may be required in response to those changes in price.

If over time the mark-to-market price change exceeds a given threshold specified in your trade documentation, you may be required to post or receive top-up margin.

IM Monitoring and Screening

Here's where we make sure the collateral posted to your account meets all of the applicable criteria, both internal and regulatory-driven.

We offer a service that checks the securities posted to your segregated account to confirm they are eligible according to the applicable regulations and according to your internal criteria.

Daily reports are provided to you indicating the eligibility of securities posted to you.

¹ Currently in development.

² This does not encompass derivatives trade reporting mandated by regulators in many jurisdictions. You are responsible for consulting with your trade counterparty over respective responsibilities to report positions to swap data repositories.

*Applies to both collateral receivers and providers

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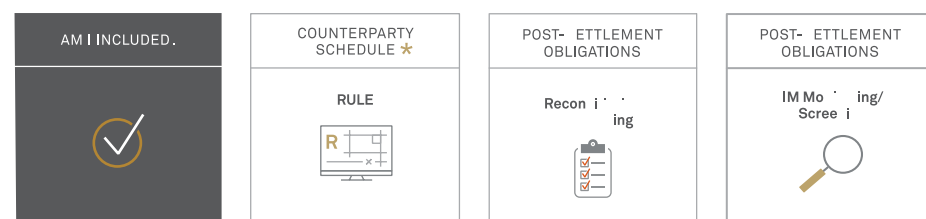
Helpful Tips for Your Job Role

Meeting the non-cleared margin challenge will require collaboration on your part right across your organization. While not intended to be exhaustive, here is an indication of your responsibilities by role.

The Compliance Manager

With compliance resting on your shoulders, your first responsibility is to figure out if your firm will be subject to the regulations. If your company is captured, it's then up to you to ensure adherence to the new obligations.

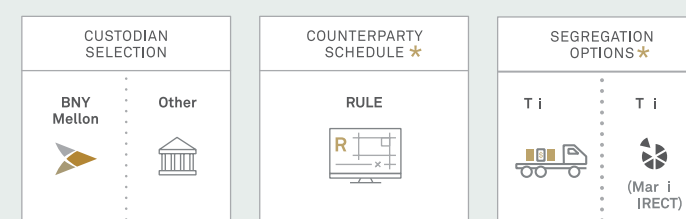
1. Conduct an estimation of whether your firm will be captured using a margin calculator.
2. Assessing your firm's ability to meet the various steps to compliance early on will be critical in your choice of custodian.
3. Each of the steps outlined in the non-cleared margin map can take months to complete — so start early!
4. Ensure you are checking collateral eligibility to avoid wrong-way risk.



The Legal Counsel

You don't need to be told that new trading relationships may involve lengthy negotiations and extensive documentation work. This is no ordinary repapering exercise, though: this time around you'll need to agree to new collateral and trading documents with every counterparty with which you trade derivatives.

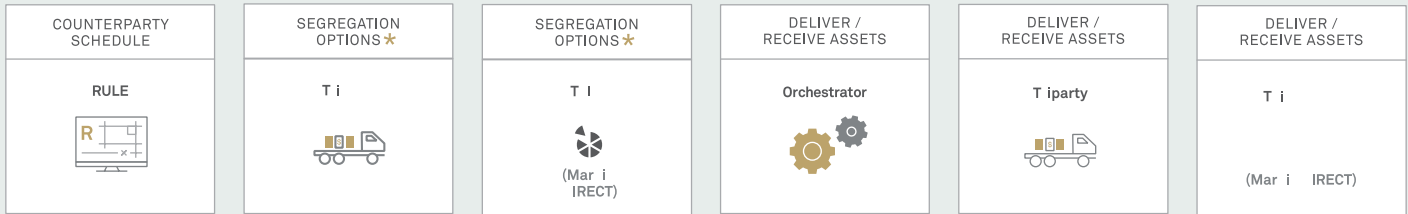
1. Start work early to familiarize yourself with the various legal agreements you will need, from custody agreements and account control agreements to eligible collateral schedules.
2. Negotiate documents with counterparties simultaneously to save time and prevent duplication.
3. Partner with a collateral manager if you have many bilateral trading relationships to renegotiate.
4. Start the papering process as soon as possible.
5. You'll be at the heart of negotiating collateral schedules with counterparties — familiarize yourself with the benefits of online schedule managers like RULE.



The Head of Operations

Your world is about to get much more complex. You will be tasked with setting up an entirely new margin administration infrastructure. Even if you have posted margin to dealers before, it is likely that you've not had to receive collateral, verify the accuracy of the calls or verify the regulatory eligibility of the collateral you received. Now it's on you.

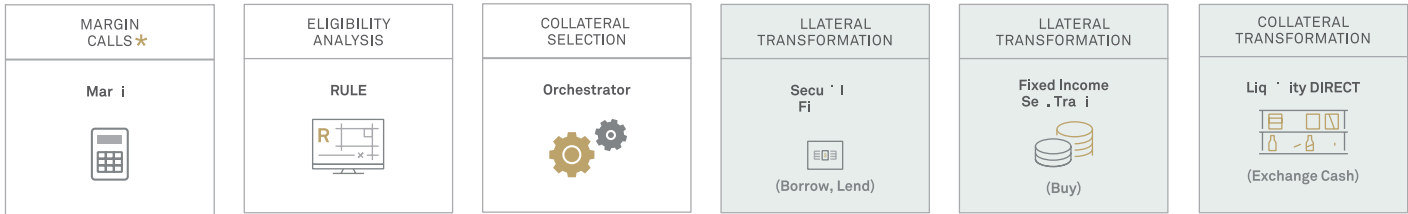
1. Explore the difference between Triparty and Third Party segregation to figure out the better fit for your firm.
2. Conduct a frank appraisal of your internal capacity to manage the collateral process or whether you need to outsource management to a third party.
3. Be cognizant that some "low-touch" margin solution providers actually involve more direct participation on your part than you might expect.
4. Use electronic collateral schedules to minimize the potential for paper-based mistakes and to enable you to see your entire pledged margin book.
5. Post-trade you'll have to monitor IM and adjust the amount of margin posted on a mark-to-market basis, in addition to filing reports to regulators. Consider partnering with a collateral administrator that can provide these services.



The Portfolio Manager

As a trader, you may not be interested in collateral requirements and settlement issues, but you will soon need to be. Securities in your portfolio are going to be posted as IM, so the acceptability of assets as eligible collateral will be a significant consideration for you going forward.

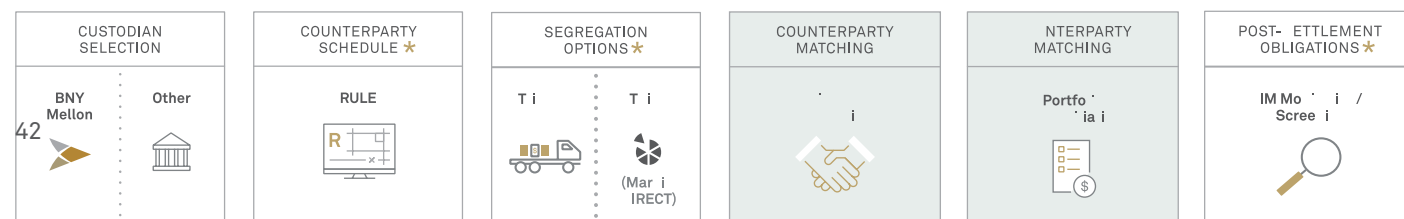
1. Familiarize yourself with the type of assets that can be used as IM.
2. When looking at assets, gauge whether a higher yield outweighs an inability to post the security as margin.
3. Securing a comprehensive view of your portfolio will better position you to most efficiently and optimally post margin. Tools such as Orchestrator can help.
4. Investigate how securities finance can help you exchange ineligible assets for acceptable securities.
5. This may be an opportunity for you — explore how you can minimize any drag on the performance of your portfolio.



The Risk Manager

Your job is to minimize risk throughout the margin process, spotting potential trouble spots and ensuring rigorous risk controls are in place to ensure that pitfalls are avoided and everything runs without a hitch.

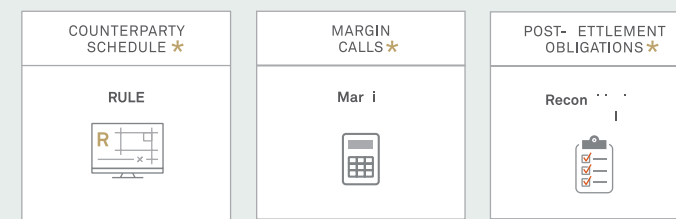
1. For many, the rules will involve an entirely new process — start work early to learn about those new stages and identify those that could inject risk into the workflow, whether market, credit or operational risk.
2. Thoroughly review and test the new infrastructure to discover any weaknesses where trade flow mistakes could occur — such as erroneous transfers of cash or securities collateral.
3. Determine which legal jurisdictions your firm is captured under for posting and receiving margin and what collateral is acceptable when receiving and posting. Remember, you may need to comply in multiple jurisdictions.
4. Review the operational processes when setting up with a Triparty or Third Party custodian to ensure that your firm has the capacity to manage the regulatory requirements.



The IT Manager

A simple spreadsheet may have sufficed for meeting margin calls previously, but the scale of the non-cleared margin challenge demands electronic solutions. You will be instrumental in providing the technical tools to enable your firm to meet this challenge.

1. Begin the groundwork for the connectivity build around linking electronically to custodians, margin hubs and portfolio reconciliation services.
2. If you are processing margin calls via email, consider other processes and alternatives to which your counterparties are connecting.
3. Ensure your process for instructing security movements will be able to accommodate substantially increased volumes.
4. Develop a technology solution that ensures your entity can only accept regulatory-eligible collateral from counterparties.
5. Partnering with a third-party collateral manager can provide many of the necessary electronic solutions and integrate them within your front- and back-office systems.



The Finest Resources, Revealed

BNY Mellon prides itself on having assembled the finest resources in order to provide clients with best-in-class solutions across the non-cleared margin rules lifecycle.

These capabilities extend across the breadth of our business, from custody and segregation, to triparty collateral management to securities finance.

Among the elements of our franchise that illustrate the depth and sophistication of our non-cleared margin service proposition:

- BNY Mellon is the largest custodian in the world with \$34.5 trillion in assets under custody or administration*
- We are the world's largest Triparty repo agent, with average triparty balances of \$3 trillion*
- BNY Mellon is one of the largest securities lending agents globally and the world leader in assets on loan, with more than 150 approved borrowers in the lending program.*
- BNY Mellon has an estimated 45% of all regulatory initial margin segregation balances across the world**
- Sole clearing and settlement bank for the US Treasury market*
- Our patented Third Party collateral management platform is unique in the marketplace
- Dedicated resources across, sales, relationship management, client services, legal, compliance and risk in 35 nations throughout the Americas, EMEA and APAC

BNY Mellon External Recognition:

- Asia Risk Collateral Manager of the Year Award, 2018
- The Asset AAA Awards Collateral Manager of the Year, 2018
- BNY Mellon Securities Lending ranked first in nine categories in the Global Investor Securities Finance Survey, 2018

* As of September 30, 2018

** Source: International Swaps and Derivatives Margin Survey FY 2017, April 2018

Meeting your non-cleared margin requirements is no easy feat. While we hope that this document has informed your thinking about how best to meet your obligations around this challenging endeavor, we are standing by to answer your questions, provide you with helpful advice or furnish you with the solutions we have detailed in this guide.

Find Out More

nonclearedmargin.bnymellon.com

To find out more about how BNY Mellon can assist you in meeting your non-cleared trading and collateral requirements, please contact:

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