## YOUR GUIDE TO THE UNCLEARED MARGIN RULES

The Finest Resources Assembled

**US Version** 



#### CONTENTS

PAGE		SECTION			SECTION
2	Glossary	0.1	21	Collateral Selection	7.0
3	Introduction	0.2	22	Collateral Transformation	8.0
4	Uncleared Margin	0.3	23	Collateral Transformation: Borrow	8.1
	Beyond Phase 6	0.4	24	Collateral Considerations	8.2
6	Uncleared Derivatives	0.5	25	Collateral Transformation: Buy	8.3
7	Are You Captured	0.6	26	Collateral Transformation: Exchange	8.4
8	Uncleared Margin Rules	0.7	27	Delivering receiving assets	9.0
9	Posting and Receiving Collateral	0.8	28	Settlement	10.0
10	Pre-Trade	1.0	29	Post-settlement obligations	10.1
11	Choosing your Custodian	1.1	30	Helpful Tips for your Job role	11.0
12	Your Segregation Options	2.0	31	The Compliance manager	11.1
13	Triparty Segregation	2.1	32	The Legal Counsel	11.2
14	Third Party Segregation	2.2	33	The Head of Operations	11.3
15	Counterparty Collateral Schedule	3.0	34	The Portfolio Manager	11.4
16	Legal Documentation	3.1	35	The Risk Manager	11,5
17	Ready To Exchange	4.0	36	The IT Manager	11.6
18	Margin Calls	4.1	37	The Finest Resources, Revealed	12.0
19	Counterparty Matching	5.0			
20	Eligibility Analysis	6.0			

## AN INTRODUCTION TO THE UNCLEARED MARGIN RULES

A seismic change has occurred in global financial markets.

Requirements to post initial margin (IM) for uncleared over-the-counter derivative trades have been implemented in many of the world's major economies.

This change presents a number of funding, legal, operational and <u>compliance challenges</u> 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 reporting requirements and position monitoring



## Uncleared Margin Requirements a History

In the wake of the global financial crisis, G20 finance ministers met in Pittsburgh in 2009, committing to two major reforms of the OTC derivatives market.

Firstly, to mitigate counterparty credit risk, standardized derivatives would be cleared at central counterparties (CCPs).

Secondly, non-standardized derivatives unsuitable for central clearing could remain bilaterally traded but would be subject to IM (Initial Margin) and VM (Variation Margin) requirements.

This broad outline was then further developed by BCBS-IOSCO (Basel Committee on Banking Supervision and the Internal Organisation of Securities Commissions) and ultimately adopted as binding regulation in Australia, Canada, the European Union, United Kingdom, Hong Kong, Japan, Singapore, Switzerland and the USA.

These requirements were implemented in six distinct phases from 2016 to 2022, with thresholds dropping during each subsequent phase to expand the obligation to post IM to a sequentially larger group of derivatives market participants. The first four phases impacted only the very largest uncleared derivatives users.

In 2021 and 2022, the final two phases aimed to capture most of the remaining buy-side firms, bringing an estimated additional 1,089 into scope.<sup>1</sup>

The six phases were implemented as follows.2



- 1. According to estimates from the ISDA member survey, conducted in 2018.
- 2. A similar phased approach was used in the EU using different thresholds. In APAC, different thresholds were used and only some jurisdictions applied the phase-in approach.



## Beyond Phase 6

#### What lies ahead?

Now that the sixth and final phase has been implemented - and with over 1000 market participants posting collateral against their uncleared OTC derivatives trades - what about the market participants that remain out of scope?

The regulation is here to stay - and regardless of whether you are currently out of scope, there is a chance you may be captured in the future. To determine whether your situation has changed, you will need to calculate your Average Aggregate Notional Amount (AANA) on an annual basis.

#### **Uncleared OTC Derivatives**

Your AANA is based on the type and amount of uncleared derivatives you trade. From 2023 and beyond, if your volumes exceed the \$8 billion threshold, you will need to comply with the regulation.

Going forward, the measurement period for calculating your AANA is:

For markets supervised by the Commodity Futures Trading Commission (CFTC), the AANA is calculated using daily averaging for the period of March, April, May of each year, with compliance beginning September 1 of that year. For those supervised by the US prudential regulators, the calculation uses a daily average across June, July, August, with compliance beginning January 1 of the following year.



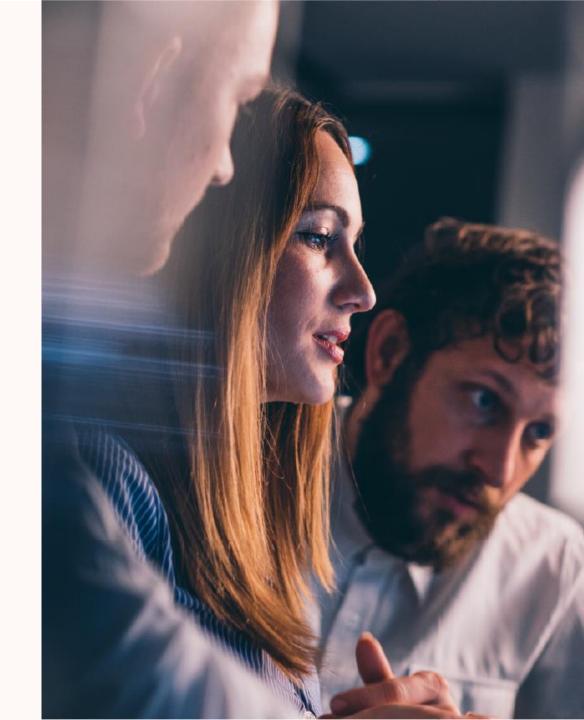
## Uncleared Derivatives: What's In?

Crucial to determining if your firm is impacted is knowing which uncleared 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:

#### **Uncleared OTC Derivatives**

- Single-Name Credit Default Swaps and Narrow Credit Default Swap Indices
- 2. Currency Swaps<sup>1</sup>
- 3. Cross-Currency Swaps
- 4. FX Options and Non-Deliverable Forwards (NDFs)<sup>2</sup>
- 5. Total Return Swaps
- 6. Equity Swaps, Equity Forwards and Equity Options<sup>2</sup>
- 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 no 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. 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 uncleared margin rules. 1 Multi-managed funds must be consolidated to calculate an overall fund level. Funds may qualify for independent AANA calculation if they meet certain criteria.
- 3. Subject to local exemptions.



## Are You Captured?

Is your trading entity or counterparty subject to regulation of an in-scope country or iurisdiction?

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

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

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

Does your trading entity use uncleared derivatives?

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

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

NO You are not captured.

Does your corporate group – including the parent company, as well as all subsidiaries and affiliates – have consolidated notional uncleared derivative amounts exceeding the compliance threshold of \$8 billion?<sup>1</sup>

**HINT:** If you don't know how to calculate your AANA, please get in touch and we will be happy to help.

YES You may be captured.

NO You are not captured.

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

 ${}^\star \text{Cayman-based}$  funds will be captured under the uncleared margin rules.

1. Multi-managed funds must be consolidated to calculate an overall fund level. Funds may qualify for independent AANA calculation if they meet certain criteria.



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.



NO

# UNCLEARED MARGIN RULES

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

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



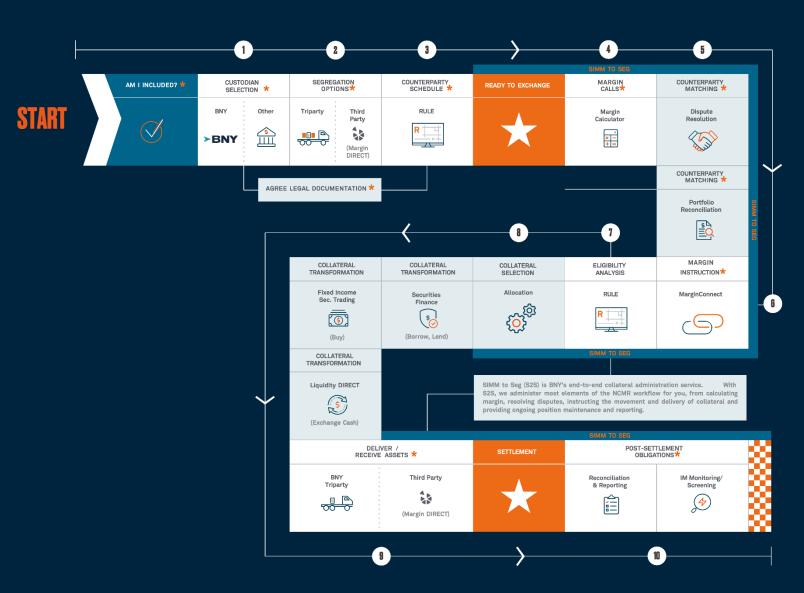
## Posting and Receiving Collateral

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

As a collateral receiver, you will have to discuss with your counterparties their preferences for posting collateral to your segregated margin accounts.

Practically speaking, this means while you may choose to post collateral under a Third-Party construct, your counterparty may elect to use Triparty. In such a circumstance, you may need to 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 providers and receivers.





## FIRST STAGE PRE-TRADE

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



## 1.1 Choosing Your Custodian\*

After you determine that your firm will be in-scope, the first step on your journey to uncleared 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 uncleared 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?
- 9. Protect your assets and effectively process default notifications?





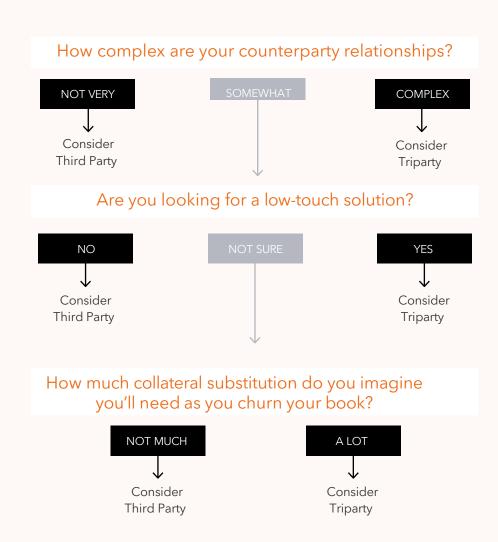
<sup>\*</sup>Applies to both collateral receivers and providers

## 2.0 Your Segregation Options\*

Once you've selected BNY as 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.





## 2.1 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.

**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

#### What does Triparty give you?

- 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.
- Avoids counterparty collateral pricing disputes, with BNY 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.





## 2.2 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 favour of your counterparty,

**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.

#### What does Triparty give you?

- 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.
- Controls the posting and release of collateral via online tools or SWIFT to agreed standards.





## 3.0 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.

Entities in-scope for Phases 1-4 typically used highly rated securities to meet IM obligations/government bonds making up 88.4% of IM balances in the latest ISDA survey.

As the demand for collateral increased and the demographic of in-scope firms change through Phases 5, 6 and beyond, the use of collateral expanded into the wider eligible suite of assets under the terms of the regulations.

Cash can be used, but in most jurisdictions it must be transformed (typically into an eligible money market fund) in order to properly segregate the collateral.

#### Rule

RULE is BNY'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.
- Negotiate schedules with your counterparties online and receive feedback in real time.
- Electronically agree and confirm your collateral schedules.
- 4. You're approved. It's that simple.





<sup>\*</sup>Applies to both collateral receivers and providers

## 3.1 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:

- Identifying and prioritizing the counterparties with which you will need to establish segregated accounts.
- 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.

**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..

#### **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.

#### **Account Control Agreement (ACA)**

An ACA establishes your 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 a non-negotiable 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 excess assets that are not allocated to the segregation account, but does not apply to assets that have already been allocated to your counterparty.



<sup>\*</sup>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



## 4.1 Margin Calls\*

Congratulations – you've successfully executed your first uncleared derivatives trade. Now it's time to calculate your IM requirement.

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 BNY's comprehensive SIMM to Seg collateral administration service handles all elements of margin calculation and messaging on your behalf.

**TIP:** In some jurisdictions, you may have to get your margin calculation model approved by a local regulator and, potentially, by regulators in other jurisdictions. You should factor the time required for approvals into your timelines for readiness.





## 5.0 Counterparty Matching\*

You've received an IM call from your trade counterparty and you – or your collateral administration service, such as BNY's SIMM to Seg – run a calculation to verify whether you agree in full or partially.

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

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

#### **Dispute Resolution**

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

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

#### **Portfolio Reconciliation**

An essential part of the process is reconciling your portfolio records against your counterparty to ensure data consistency.

#### **MarginConnect**

MarginConnect is a solution where counterparties using AcadiaSoft for calculating their risk exposures can automatically transmit the data to BNY.

The solution streamlines the margin call workflow, mitigates risk and minimizes our client's operational resource requirements.









## 6.0 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**: Uncleared margin rule requirements vary by jurisdiction. Please consult your domestic regulator for eligible collateral standards in your home market.

#### **HOW RULE CAN HELP:**

RULE 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.





## 7.0 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, BNY can help.

#### **Optimizing Your Collateral**

BNY's collateral optimization tools enable 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.
- 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 BNY, minimize the drag, maximize your efficiency.





## 8.0 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.

- BORROW: Utilize the securities finance market to borrow the asset to meet your margin requirements.
- 2. **SOURCE, EXCHANGE, INVEST:** Exchange cash and collateral with both traditional liquidity providers and non-bank peer institutions. Alternatively, invest cash balances in money market funds through our LiquidityDIRECT 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 inhouse 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 is able to transform assets later in the trading day – up to 1 pm in your local market – especially useful in jurisdictions where same-day settlement is a regulatory requirement.



<sup>1</sup> Not available in Japan.

## 8.1 Collateral Transformation: Borrow

BNY 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.

**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.

#### **A Closer Look**

- If requested, our securities finance team can transform the assets In your custody account to meet your margin requirements. As an example, you, working with our team, identify a portfolio of corporate bonds that would be eligible for transformation.
- 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 Bunds, subject to BNY credit and risk approval.
- 3. The Bunds are posted into your custody account and then are pledged according to your instructions to your counterparty.
- 4. In this example, the Bunds 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.





<sup>1</sup> Subject to investigating guidelines for counterparty in question.

## COLLATERAL CONSIDERATIONS

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

Collateral terms are typically symmetrical, and so you should be willing to accept any asset types that you propose to include as eligible to post.

INSTRUMENT	PROS	CONS
Government Securities	Readily available, wide pool     Acceptable under all jurisdictions     Standard inclusion in all eligible collateral schedules	Cost
Investment Grade Corporate Bonds	Expanded eligibility terms within the same asset type     Settled through the same infrastructure as government securities	More conservative haircuts than government securities     Subject to concentration limits
Money Market Funds	Highly liquid Short-term investment that can be directly allocated as collateral in a pledge account Return on cash reinvested into the fund	Cross-jurisdictional eligibility challenges Haircuts require underlying asset data - else applied at most conservative rate
Exchange Traded Funds	Highly liquid     Ability to invest in specialist collateral ETF instruments that are compliant with regulations	Conservative haircuts     Subject to concentration limits
Main Index Equity	Readily available, wide pool     Highly liquid asset class	Conservative haircuts Subject to concentration limits Difficult to manage outside of Triparty Not commonly accepted collateral against uncleared OTC derivatives

In addition to the above table BNY can support the following securities that are eligible in many of the regulatory regimes:

- Agency Mortgage-Backed Securities
- Cash Equities

Exact eligible collateral requirements will vary by jurisdiction, and in-scope firms should consult their local regulations to confirm acceptable margin securities

## 8.3 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.<sup>1</sup>

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.

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

#### **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





<sup>\*</sup>Subject to investigating guidelines for counterparty in question.

## 8.4 Collateral Transformation Exchange

#### Money Market Funds

#### **LiquidityDIRECT**

LiquidityDIRECT is BNY's short-term investment platform, which provides access to a broad range of choices, designed to meet all of your short-term investment needs. Investment options offered on the platform include money market funds, sponsored cleared repo, brokered certificates of deposit<sup>t2</sup>, commercial paper<sup>2</sup>, short-duration fixed income exchanged traded funds (ETFs)3, focused investing applications and insured cash sweep.<sup>2</sup>

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.

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

Applies to both collateral receivers and providers. Offered on Liquidity DIRECT by IntraFi Network. Product offered only in the US to Institutional clients, unless otherwise permitted by local law, on Liquidity DIRECT through The Bank of New York Mellon. The deposit-taking institution may not be licensed outside of the US and deposits may not be insured under deposit protection schemes other than FDIC's. Products offered only in the US to institutional clients, unless otherwise permitted by local law, on Liquidity DIRECT through BNY Capital Markets, LLC.

COLLATERAL TRANSFORMATION

Liquidity DIRECT



(Exchange Cash)



## 9.0 Delivering 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's Triparty architecture receive the benefit of our systems and team 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.

For clients using our SIMM to Seg solution, all aspects of collateral delivery and reception are taken care of by our comprehensive collateral administration service.



DELIVER /
RECEIVE ASSETS \*

Allocation \_\_\_\_\_ BNY \_\_\_\_\_ Third Party
Triparty \_\_\_\_\_ (Margin DIRECT)

<sup>\*</sup>Applies to both collateral receivers and providers..

10.0 Post-SettlementObligations IM Monitoringand Screening

## THIRD STAGE SETTLEMENT



## 10.1 Post-settlement Obligations\*

#### **Reconciliation and Reporting**

Settlement of an uncleared 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..

#### **Ongoing Collateral Maintenance**

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

Our SIMM to Seg service 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.

**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's client portal.

1. 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.



Now that a live position exists, the trade will require daily monitoring - as will every other OTC trade you enter into.



<sup>\*</sup>Applies to both collateral receivers and providers

## HELPFUL TIPS FOR YOUR JOB ROLE

Meeting the uncleared 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.



## 11.1 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 uncleared margin map can take months to complete so start early!
- 4. Ensure you are checking collateral eligibility to avoid wrong-way risk.
- 5. May be responsible for the coordination of model approval in certain organizations.











## 11.2 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.

- 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.









## 11.3 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 collateral administrator.
- 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.
- Determine the most efficient method of collateral instructions delivery to your custodian (SWIFT, Portal, MarginConnect).















## 11.4 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.

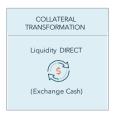
- 1. Familiarize yourself with the type of assets that can be used as IM.
- 2. When looking at assets, gauge whether a higher yield outweighs an inability to post the security as margin.
- 3. Securing a comprehensive view of your portfolio will better position you to most efficiently and optimally post margin. Tools such as SIMM to Seg 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.













## 11.5 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.















## 11.6 The IT Manager

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

- Begin the groundwork for the connectivity build around linking electronically to custodians, margin hubs and portfolio reconciliation services.
- 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.
- 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.









### 12.0 The Finest Resources, Revealed

BNY prides itself on having assembled the finest resources in order to provide clients with best-in-class solutions across the uncleared 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 uncleared margin service proposition:

- BNY is the largest custodian in the world with \$ 43 trillion in assets under custody or administration\*
- We are the world's largest Triparty repo agent, with average triparty balances of \$5.207 trillion\*
- BNY 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\*
- 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 External Recognition:**

- Asia Risk Collateral Manager of the Year Award, 2021
- The Asset AAA Awards Collateral Manager of the Year, 2021
- BNY Securities Lending ranked first in five categories in the Global Investor Securities Finance Survey, 2021
- BNY FX ranked eighth overall in 2022 Euromoney Survey

Meeting your uncleared 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 endeavour, 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

unclearedmargin.bny.com

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

**Delaney Gardiner** 

Ingrid Garin

Filippo Santilli

+1 212 815 5476

+322 545 8666

+852 2840-6664

Delaney.gardiner@bny.com |

Ingrid.garin@bny.com

Filippo.santilli@bny.com

For the general inquiries about the uncleared margin rules, please contact: nonclearedmargin@bny.com





#### BNY DISCLAIMERS AND DISCLOSURES:

#### BNY DISCLAIMERS AND DISCLOSURES:

BNY is the corporate brand of The Bank of New York Mellon Corporation and may be used to reference the corporation as a whole and/or its various group entities. This material and any products and services may be issued or provided under various brand names of BNY in various countries by duly authorized and regulated subsidiaries, affiliates, and joint ventures of BNY, which may include any of those listed

This material may not be distributed or used for the purpose of providing any referenced products or services or making any offers or solicitations in any jurisdiction or in any circumstances in which such products, services, offers or solicitations are unlawful or not authorized, or where there would be, by virtue of such distribution, new or additional registration requirements.

The Bank of New York Mellon, a banking corporation organized pursuant to the laws of the State of New York, whose registered office is at 240 Greenwich St, NY, NY 10286, USA. The Bank of New York Mellon is supervised and regulated by the New York State Department of Financial Services and the Federal Reserve and is authorized by the Prudential Regulation Authority ("PRA") (Firm Reference Number: 122467).

The Bank of New York Mellon also operates in the UK through its London branch (Companies House number FC005522 and UK establishment number BR025038) with registered office at 160 Queen Victoria Street, London, EC4V 4LA and is subject to regulation by the Financial Conduct Authority ("FCA") and limited regulation by the PRA. Details about the extent of our regulation by the PRA are available from us on request

The Bank of New York Mellon operates in Germany through its Frankfurt branch The Bank of New York Mellon Filiale Frankfurt am Main and has its registered office at Friedrich-Fbert-Anlage 49, 60327 Frankfurt am Main, Germany (Zweigniederlassung registered in Germany with Registration No. HRB 12731). It is under the supervision of the German Central Bank and the Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht. ("BaFin"), Marie-Curie-Str. 24-28, 60439 Frankfurt, Germany) under BaFin-ID 10100253,

The Bank of New York Mellon SA/NV, a Belgian public limited liability company, organized and existing under the laws of Belgium, registered with the Crossroad Bank for Enterprises under number 0806.743.159, whose registered office is at Boulevard Anspachlaan 1, B-1000 Brussels. Belgium, authorized and regulated as a significant credit institution by the European Central Bank ("ECB") under the prudential supervision of the National Bank of Belgium ("NBB") and under the supervision of the Belgian Financial Services and Markets Authority ("FSMA") for conduct of business rules, is a subsidiary of The Bank of New York Mellon.

The Bank of New York Mellon SA/NV operates in Ireland through its Dublin branch at Riverside II. Sir John Rogerson's Quay Grand Canal Dock Dublin 2, D02KV60, Ireland and is registered with the Companies Registration Office in Ireland No. 907126 & with VAT No. IE 9578054E. The Bank of New York Mellon SA/NV, Dublin Branch is subject to additional regulation by the Central Bank of Ireland for Depository Services and for conduct of business rules

The Bank of New York Mellon SA/NV operates in Germany through its Frankfurt branch The Bank of New York Mellon SA/NV. Asset Servicing. Niederlassung Frankfurt am Main, and has its registered office at MesseTurm, Friedrich-Ebert-Anlage 49, 60327 Frankfurt am Main, Germany Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht ("BaFin"), Marie-Curie-Str. 24-28, 60439 Frankfurt, Germany) under RaFin ID 10122721

The Bank of New York Mellon SA/NV operates in the Netherlands through its Amsterdam branch at Tribes SOM2 Building, Claude Debussylaan 7, 1082 MC Amsterdam, the Netherlands, registered with the Dutch Chamber of Commerce under registration number 34363596. The Bank of New York Mellon SA/NV, Amsterdam Branch is subject to limited additional supervision by the Dutch Central Bank ("De Nederlandsche Bank" or "DNB") on integrity issues only. DNB holds office at Spaklerweg 4, 1096 BA Amsterdam, the Netherlands

The Bank of New York Mellon SA/NV operates in Luxembourg through its Luxembourg branch at 2-4 rue Eugene Ruppert, Vertigo Building -Polaris, L- 2453, Luxembourg. The Bank of New York Mellon SA/NV, Luxembourg Branch (registered with the Luxembourg Registre de Commerce et des Sociétés under number B105087) is subject to limited additional regulation by the Commission de Surveillance du Secteur Financier at 283, route d'Arlon, L-1150 Luxembourg for conduct of business rules, and in its role as depositary and administration agent for undertakings for collective investments (UCIs).

The Bank of New York Mellon SA/NV operates in France through its Paris branch at 7 Rue Scribe, Paris, Paris 75009, France, The Bank of New York Mellon SA/NV, Paris Branch is subject to limited additional regulation by Secrétariat Général de l'Autorité de Contrôle Prudentiel at Première Direction du Contrôle de Banques (DCB 1), Service 2, 61, Rue Taitbout, 75436 Paris Cedex 09, France (registration number (SIREN) Nr. 538 228 420 RCS Paris - CIB 13733).

The Bank of New York Mellon SA/NV operates in Italy through its Milan branch at Via Mike Bongiorno no. 13, Diamantino building, 5th floor, Milan, 20124, Italy. The Bank of New York Mellon SA/NV, Milan Branch is subject to limited additional regulation by Banca d'Italia - Sede di Milano at Divisione Supervisione Banche, Via Cordusio no. 5, 20123 Milano, Italy (registration number 03351).

The Bank of New York Mellon SA/NV operates in Denmark as The Bank of New York Mellon SA/NV, Copenhagen Branch, filial af The Bank of New York Mellon SA/NV, Beigien, CVR no. 41820063, and has its registered office at Strandvejen 125,1. DK-2900Hellerup, Denmark. It is subject occur. Calls and communications with BNY may be recorded, for regulatory and other reasons. to limited additional regulation by the Danish Financial Supervisory Authority (Finanstilsynet, Strandgade 29, DK-1401 Copenhagen K, Denmark). The Bank of New York Mellon SA/NV operates in Spain through its Madrid branch with registered office at Calle José Abascal 45, Planta 48, 28003, Madrid, and enrolled on the Reg. Mercantil de Madrid, Tomo 41019, folio 185 (M-727448). The Bank of New York Mellon, Sucursal en España is registered with Banco de España (registration number 1573).

160 Queen Victoria Street, London EC4V 4LA. The Bank of New York Mellon (International) Limited is authorized by the PRA and regulated by

BNY Mellon Fund Services (Ireland) Designated Activity Company is registered with Company No 218007, having its registered office at One Dockland Central, Guild Street, IFSC, Dublin 1, Ireland. It is regulated by the Central Bank of Ireland.

Regulatory information in relation to the above BNY entities operating out of Europe can be accessed at the following website: https://www.bny.com/RID.

#### For clients located in Switzerland

To the extent no financial instruments or financial services are being provided under the Swiss Financial Services Act ("FinSA") the information provided herein does not constitute an offer of financial instrument or an offer to provide financial service in Switzerland pursuant to or within the meaning of the FinSA and its implementing ordinance.

In respect of (i) non-financial instruments/services and/or OTC derivatives and (ii) financial instruments/services within the meaning of FinSA (other than OTC derivatives): This is solely an advertisement pursuant to or within the meaning of FinSA and its implementing ordinance. This reliance upon this material.

contains an advertisement pursuant to or within the meaning of FinSA and its implementing ordinance. In respect of OTC derivatives, including FX: Please be informed that The Bank of New York Mellon and The Bank of New York Mellon SA/NV enter into OTC derivative transactions as a counterparty, i.e. acting for their own account or for the account of one of their affiliates. As a result, where you enter into any OTC derivative transactions (including (i) OTC derivatives and (ii) financial instruments/services within the meaning of FinSA (other than OTC derivatives)) with us, you will not be considered a "client" (within the meaning of the FinSA) and you will not benefit from the protections otherwise afforded to clients under FinSA. Accordingly, this should not be considered an advertisement with respect to such transactions pursuant to or within the meaning of FinSA and its implementing ordinance.

The Bank of New York Mellon, Singapore Branch, is subject to regulation by the Monetary Authority of Singapore. The Bank of New York Mellon, Hong Kong Branch (a branch of a banking corporation organized and existing under the laws of the State of New York with limited liability), is subject to regulation by the Hong Kong Monetary Authority and the Securities & Futures Commission of Hong Kong

For recipients of this information located in Singapore: This material has not been reviewed by the Monetary Authority of Singapore.

The Bank of New York Mellon, Seoul Branch, is a licensed foreign bank branch in Korea and regulated by the Financial Services Commission and the Financial Supervisory Service. The Bank of New York Mellon, Seoul Branch, is subject to local regulation (e.g. the Banking Act, the Financial Investment Services and Capital Market Act, and the Foreign Exchange Transactions Act etc.)

The Bank of New York Mellon, Shanghai Branch (Financial Licence No. B0078B231000001) and the Bank of New York Mellon, Beijing Branch (Financial Licence No. B0078B211000001) are licensed foreign bank branches registered in the People's Republic of China and are supervised and regulated by the National Financial Regulatory Administration.

The Bank of New York Mellon is regulated by the Australian Prudential Regulation Authority and also holds an Australian Financial Services Licence No. 527917 issued by the Australian Securities and Investments Commission to provide financial services to wholesale clients in

Where a document is issued or distributed in Australia by The Bank of New York Mellon on behalf of BNY Mellon Australia Pty Ltd (ACN 113 947 309) located at Level 2, 1 Bligh Street, Sydney NSW 2000, and relates to products and services of BNY Mellon Australia Pty Ltd or one of its subsidiaries, note that The Bank of New York Mellon does not provide these products or services. None of BNY Mellon Australia Ptv Ltd or its subsidiaries is an authorized deposit-taking institution and the obligations of BNY Mellon Australia Pty Ltd or its subsidiaries do not represent investments, deposits or other liabilities of The Bank of New York Mellon. Neither The Bank of New York Mellon nor any of its related entities stands behind or guarantees obligations of BNY Mellon Australia Pty Ltd.

The Bank of New York Mellon has various other subsidiaries, affiliates, branches and representative offices in the Asia-Pacific Region which are subject to regulation by the relevant local regulator in that jurisdiction.

The Bank of New York Mellon, Tokyo Branch, is a licensed foreign bank branch in Japan and regulated by the Financial Services Agency of Japan. (Zweigniederlassung registered in Germany with registration No. HRB 87912). It is subject to limited additional supervision by the Federal The Bank of New York Mellon Trust (Japan), Ltd., is a licensed trust bank in Japan and regulated by the Financial Services Agency of Japan. The Bank of New York Mellon Securities Company Japan Ltd. is a registered type 1 financial instruments business operator in Japan and regulated by the Financial Services Agency of Japan.

> The Bank of New York Mellon. DIFC Branch, regulated by the Dubai Financial Services Authority ("DFSA") and located at DIFC, The Exchange Building 5 North, Level 6, Room 601, P.O. Box 506723, Dubai, UAE, on behalf of The Bank of New York Mellon, which is a wholly-owned subsidiary of The Bank of New York Mellon Corporation.

> The Bank of New York Mellon, Abu Dhabi Global Market Branch, regulated by the Abu Dhabi Global Market Financial Services Regulatory Authority (financial services permission number 190021) located at Level 4. Al Maryah Tower, Al Maryah Island, Abu Dhahi on behalf of The Bank of New York Mellon, which is a wholly owned subsidiary of The Bank of New York Mellon Corporation.

> The Bank of New York Mellon has various subsidiaries and representative offices in the Latin America Region which are subject to specific regulation by the relevant local regulator in each jurisdiction.

> BNY Mellon Saudi Financial Company is licensed and regulated by the Capital Market Authority, License number 20211-04, located in Alfaisaliah Tower, 18th Floor, King Fahad Road, P.O. Box 99936 Riyadh 11625, Kingdom of Saudi Arabia.

> BNY Pershing is the umbrella name for Pershing LLC (member FINRA, SIPC and NYSE), Pershing Advisor Solutions (member FINRA and SIPC), Pershing Holdings (LIK) Limited Pershing Limited (LIK) Pershing Securities Limited (LIK) Pershing Securities International Limited (Ireland) Pershing (Channel Islands) Limited, Pershing Securities Singapore Private Limited, and Pershing India Operational Services Pvt Ltd. BNY Pershing businesses also include Pershing X, Inc. a technology provider. Pershing LLC is a member of SIPC, which protects securities customers of its members up to \$500,000 (including \$250,000 for claims for cash). Explanatory brochure available upon request or at sipc.org. SIPC does not protect against loss due to market fluctuation. SIPC protection is not the same as, and should not be confused with, FDIC insurance.

> Past performance is not a guide to future performance of any instrument, transaction or financial structure and a loss of original capital may

Disclosures in relation to certain other BNY group entities can be accessed at the following website: https://www.bny.com/corporate/emea/en/disclaimers/eu-disclosures.html.

This material is intended for wholesale/professional clients (or the equivalent only), and is not intended for use by retail clients and no other person should act upon it. Persons who do not have professional experience in matters relating to investments should not rely on this material. The Bank of New York Mellon (International) Limited is registered in England & Wales with Company No. 03236121 with its Registered Office at BNY will only provide the relevant investment services, and this material is only being distributed, to investment professionals.

Not all products and services are offered in all countries.

If distributed in the UK, this material is a financial promotion. If distributed in the EU, this material is a marketing communication.

This material, which may be considered advertising (but shall not be considered advertising under the laws and regulations of Singapore), is for general information purposes only and is not intended to provide legal, tax, accounting, investment, financial or other professional counsel or advice on any matter. This material does not constitute a recommendation or advice by BNY of any kind. Use of our products and services is subject to various regulations and regulatory oversight. You should discuss this material with appropriate advisors in the context of your circumstances before acting in any manner on this material or agreeing to use any of the referenced products or services and make your own independent assessment (based on such advice) as to whether the referenced products or services are appropriate or suitable for you.

This material may not be comprehensive or up to date and there is no undertaking as to the accuracy, timeliness, completeness or fitness for a particular purpose of information given. BNY will not be responsible for updating any information contained within this material and opinions and information contained herein are subject to change without notice. BNY assumes no direct or consequential liability for any errors in or

Any references to dollars are to US dollars unless specified otherwise.

This material may not be reproduced or disseminated in any form without the prior written permission of BNY. Trademarks, logos and other intellectual property marks belong to their respective owners.

The terms of any products or services provided by BNY to a client, including without limitation any administrative, valuation, trade execution or other services shall be solely determined by the definitive agreement relating to such products or services. Any products or services provided by BNY shall not be deemed to have been provided as fiduciary or adviser except as expressly provided in such definitive agreement, BNY may ente into a foreign exchange transaction, derivative transaction or collateral arrangement as a counterparty to a client, and its rights as counterparty or secured party under the applicable transactional agreement or collateral arrangement shall take precedence over any obligation it may have as fiduciary or adviser or as service provider under any other agreement.

Investment in any floating rate instrument presents unique risks, including the discontinuation of the floating rate reference or any successors or fallbacks thereto. BNY does not guarantee and is not responsible for the availability or continued existence of a floating rate reference associated with any particular instrument. Before investing in any floating rate instrument, please evaluate the risks independently with your financial, tax and other advisors as you deem necessary.

Pursuant to Title VII of The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and the applicable rules thereunder, The Bank of New York Mellon is registered as a swap dealer with the Commodity Futures Trading Commission, is a swap dealer member of the National Futures Association (NFA ID 0420990) and is conditionally registered as a security-based swap dealer with the Securities Exchange Commission. Money market fund shares are not a deposit or obligation of BNY. Investments in money market funds are not insured, guaranteed, recommended or otherwise endorsed in any way by BNY, the Federal Deposit Insurance Corporation or any other government agency. Securities instruments and services other than money market mutual funds and off-shore liquidity funds are offered by BNY Mellon Capita Markets, LLC and The Bank of New York Mellon, London Branch,

BNY (including its broker-dealer affiliates) may have long or short positions in any currency, derivative or instrument discussed herein. BNY has included data in this material from information generally available to the public from sources believed to be reliable. Any price or other data used for illustrative purposes may not reflect actual current conditions. No representations or warranties are made, and BNY assumes no liability, as to the suitability of any products and services described herein for any particular purpose or the accuracy or completeness of any information or data contained in this material. Price and other data are subject to change at any time without notice.

Pershing Prime Services is a service of Pershing LLC, member FINRA, NYSE, SIPC, a wholly owned subsidiary of The Bank of New York Mellon Corporation ("BNY"). Member of SIPC. Securities in your account protected up to \$500,000. For details, please see www.sipc.org,

Neither BNY nor any of its respective officers, employees or agents are, by virtue of providing the materials or information contained herein acting as an adviser to any recipient (including a "municipal advisor" within the meaning of Section 15B of the Securities Exchange Act of 1934 as amended, "Section 15B"), do not owe a fiduciary duty to the recipient hereof pursuant to Section 15B or otherwise, and are acting only for

Money market fund shares are not a deposit or obligation of BNY. Investments in money market funds are not insured, guaranteed, recommended or otherwise endorsed in any way by BNY, the Federal Deposit Insurance Corporation or any other government agency. Although a money market fund seeks to preserve the value of your investment at \$1.00 per share, fund shares are subject to investment risk and your investment may lose value. Money market fund yield performance represents past performance, which is no guarantee of future results and investment returns will fluctuate. Before investing, investors should carefully consider the investment objectives, risks, charges, tax impact and expenses of the fund that are explained in each fund's prospectus. The following factors, among many, could reduce any one fund's income level and/or share price: interest rates could rise sharply, causing the value of the fund's investments and its share price to drop; interest rates could drop, thereby reducing the fund's yield; any of the fund's holdings could have its credit rating downgraded or could default: and there are risks generally associated with concentrating investments in any one industry. Investments in instruments of non-U.S. issuers are subject to the risks of certain domestic events—such as political upheaval, financial troubles, nationalization (certain assets, entities or sectors) or natural disasters—that may weaken a country's securities markets. Country risk may be especially high in emerging markets. Such investments may be affected by market risk on a global scale based on responses of certain foreign markets to markets of other countries or global market sectors. Foreign currency denominated securities are subject to fluctuations in exchange rates that could have an adverse effect on the value or price of, or income derived from, the investment. Investments in foreign instruments are subject to the risk that the value of a foreign investment will decrease because of unfavorable changes in currency exchange rates.

Securities instruments and services other than money market mutual funds and off-shore liquidity funds are offered by BNY Mellon Capital Markets IIC

Please note that there are other investment options available to you in addition to those referenced above. We would be happy to provide you with additional market information upon request (we shall have no responsibility for the accuracy of any market information provided). The Bank of New York Mellon is not an investment advisor and is not providing you with investment advice. If you require investment advice, please consult with an investment advisor. Investments in securities, including mutual funds, (i) are not insured in the relevant jurisdictions, (ii) are not bank-guaranteed, and (iii) may lose value.

The information we are providing regarding the BNY Funds (including Insight Funds etc) is only for your consideration. It is not a recommendation or an endorsement by us, nor are we providing you with investment advice. The BNY Funds are also not obligations of or guaranteed in any way by The Bank of New York Mellon (BNY) or its affiliates, or any other bank.

You should carefully read the KIIDs and other relevant docs of each fund (including for BNY Funds) for more information

The terms of any products or services provided by BNY to a client, including without limitation any administrative, valuation, trade execution or other services shall be solely determined by the definitive agreement relating to such products or services. Any products or services provided by BNY shall not be deemed to have been provided as fiduciary or adviser except as expressly provided in such definitive agreement. BNY may ente into a foreign exchange transaction, derivative transaction or collateral arrangement as a counterparty to a client, and its rights as counterparty or secured party under the applicable transactional agreement or collateral arrangement shall take precedence over any obligation it may have as fiduciary or adviser or as service provider under any other agreement.

The Bank of New York Mellon, member of the Federal Deposit Insurance Corporation ("FDIC"). Please note that many products and affiliates of The Bank of New York Mellon are NOT covered by FDIC insurance.

© 2025 The Bank of New York Mellon Cornoration All rights reserved