Tri-party Circular

J.P. Morgan Tri-party Program Update

June 2023 STRICTLY PRIVATE AND CONFIDENTIAL

J.P.Morgan

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BEN CHALLICE
Managing Director
Global Head of Trading Services, J.P. Morgan

Introduction

Welcome to the June installment of our Tri-party Circular, coming toward the end of a very busy first half both in terms of market activity and a product development cycle. In this issue, given the market backdrop over the past 12 months, Krishan Cholera provides some insights into how this translates into collateral activity in our overall program, highlighting some of the impact of buy-side participation, utilization of pledge arrangements and collateral composition change due to equity market volatility.

Over the past 30 years of tri-party evolution, the sophistication and flexibility provided by the progression in allocation and optimization algorithms has been truly transformative. At J.P. Morgan, our most recent algo enhancement has been deployed into production, providing reduced run times, increased analytics and the prioritization and simulation of recalls. Michele Filippini takes us through these benefits and how they can help improve clients' workflow for passing the book from region to region. We have also listened to client feedback and will be giving clients the flexibility to trigger optimization runs on demand and instigate eligibility changes.

With the imperative to ensure that no excess or unfinanced assets remain on the balance sheet, Sagar Patel details some of the initiatives we have seen to help mobilize the use of restricted securities, loans and money market funds. Krishna Jhangiani highlights recent developments enabling greater global collateral mobility, availability and velocity. Graham Gooden gives an overview of how structured financing solutions are applied in tri-party as sources of collateral, principal trading counterparties and innovative trading strategies.

The clock is ticking toward T+1 settlement for U.S. equities, with less than a year until implementation. Rickie Smith provides some insights into what the considerations are and potential impact for securities financing and the broader industry.

As we head toward the northern hemisphere summer, we hope you have an opportunity for some personal time.

Best wishes,
Ben

KRISHNA JHANGIANI
Analyst
APAC Platform Sales

Increasing Collateral Mobility

Clients have long had the benefit of utilizing J.P. Morgan's single global tri-party platform for mobilizing cross-border collateral movements. When client trading entities are contracting across different jurisdictions and with different J.P. Morgan contracting entities the current process can become unwieldy. Collateral is currently restricted within the books and records of each J.P. Morgan entity, and collateral can only be mobilized through a market settlement between client trading entities, resulting in market moves, settlement friction and the risk of failed settlements.

Our newly enhanced documentation acts like a 'collateral passport' that enables clients to move assets across J.P. Morgan contracting entities on a single platform regardless of jurisdiction and J.P. Morgan contracting entity.

The solution comes in response to clients' need for increased mobilization of collateral placed within the J.P. Morgan tri-party platform, where inter-entity movement was supported, but not completely seamless if leveraging different J.P. Morgan contracting entity.

As an example, clients can now freely move collateral between J.P. Morgan SE—Luxembourg Branch (international platform), JPMorgan Chase Bank N.A., London Branch (segregated initial margin), JPMorgan Chase Bank N.A. (U.S. platform) and JPMorgan Chase Bank N.A. Sydney Branch (Australian platform).

Introduces several benefits to our clients:

- Reduced settlement friction and seamless movement of collateral across different contracting entities and/or jurisdictions during non-trading hours
- Ability to introduce new asset types to different jurisdictions
- Reduced cost through elimination of market moves
- Ability to access counterparties contracted in different jurisdictions
- Added benefits from holding securities in a specific local entity for income and tax processing purposes

The most likely and logical set-up flow is for clients to be onboarded to two or more J.P. Morgan entities with full re-use documentation. This enables inter-entity movement of collateral within one ecosystem for immediate or future use as collateral.

Please contact your local J.P. Morgan representative for further information.

The solution comes in response to clients' need for increased mobilization of collateral placed within the J.P. Morgan tri-party platform

Hypothetical case study

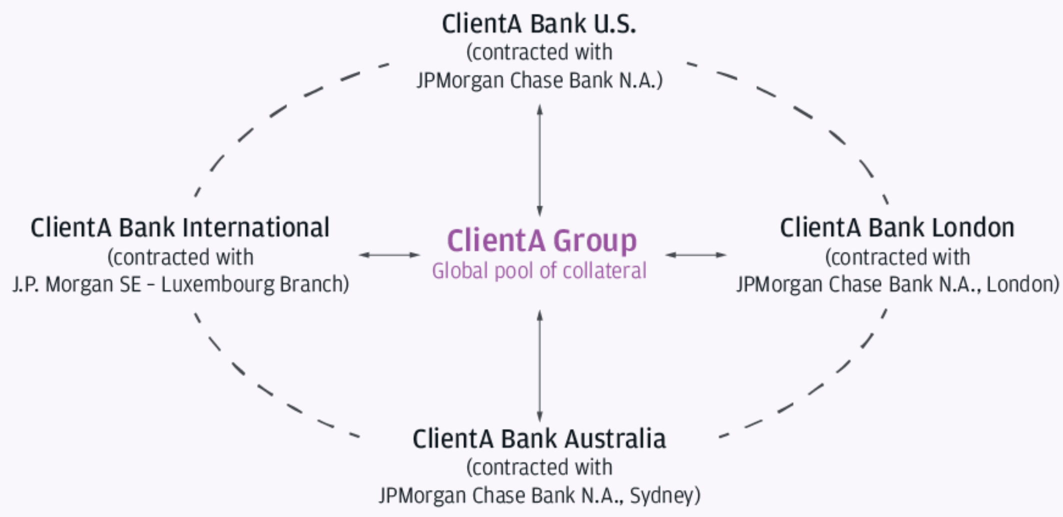
Today ClientA Group mobilizes collateral across entities through traditional market settlement, which creates cost and operational friction.

- ClientA Bank International trades through J.P. Morgan's international platform (J.P. Morgan SE–Luxembourg Branch)
- ClientA Bank Australia entity trades through J.P. Morgan's Australian platform (J.P. Morgan Chase Bank N.A., Sydney Branch)
- ClientA Bank U.S. entity trades through J.P. Morgan's U.S. platform (J.P. Morgan Chase Bank N.A.)
- ClientA Bank U.K. entity trades through J.P. Morgan London for segregated initial margin (J.P. Morgan Chase Bank N.A., London Branch)

Scenarios

Once collateral has settled within J.P. Morgan's platform, ClientA Group can feely move collateral through J.P. Morgan's global collateral platform and benefit from increased collateral mobility across multiple entities and jurisdictions.

- ClientA Bank international could provide ClientA Bank Australia and ClientA Bank U.S. with international securities (provided they are eligible with local lenders) for onward allocation
- ClientA Bank Australia and ClientA Bank U.S. could hold securities in their respective domestic markets and sweep securities to ClientA Bank International, resulting in increased utility and any associated benefits from holding securities in their local entity (i.e., income and tax processing, receipt of Australian franking credits)
- If ClientA Bank Australia were contracted only to the J.P. Morgan Australian platform and limited to Australian domestic liquidity, it could now access new liquidity through J.P. Morgan's international platform



KRISHAN CHOLERA
Associate
Product Manager

Tri-party Program Stats

We have seen an increase in buy-side firms posting initial margin, uptake in pledge arrangements and volatility in equity and FX markets. Here, we shed light on the factors affecting our book and some of the themes that have played out in the data.

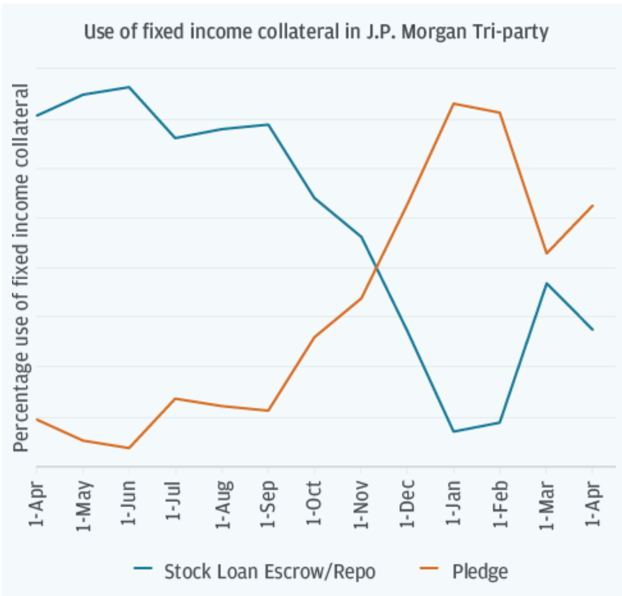
> Equity collateral balance is naturally susceptible to volatility in the wider equity markets and in periods of turbulence, these swings can be more pronounced

Impact of the buy-side

We touched upon the impact of Phase 6 UMR on our Tri-Party platform in the last edition of the Tri-Party Circular, but wanted to shine a spotlight on what we've seen in the data so far. From a client composition perspective, we have seen a surge in the number of buy-side Seg IM collateral providers on our platform, up 66 percent from December 2017. U.S. Treasuries make up 12 percent of the total collateral balance compared with an average of 9 percent prior to the Phase 6 go-live date, and it's a similar story across all G10 government bonds (40 percent current versus an average of 38 percent prior to September 2022) which are typically used for posting initial margin.

Across our stock loan escrow and repo book, we have seen fixed income collateral usage (marginally) decline with collateral providers favoring equities collateral over the last 12 months and within this space we have seen Asia Pacific equities increase in both value and presence within our program. On the pledge side we have seen elevated activity as tri-party is increasingly used for initial margin posting and we expect this trend to continue with increased interest in pledge-backed collateral arrangements across repo, stock loan escrow and CCP activity.

The graph shows how the use of fixed income assets has changed across the different types of activities.

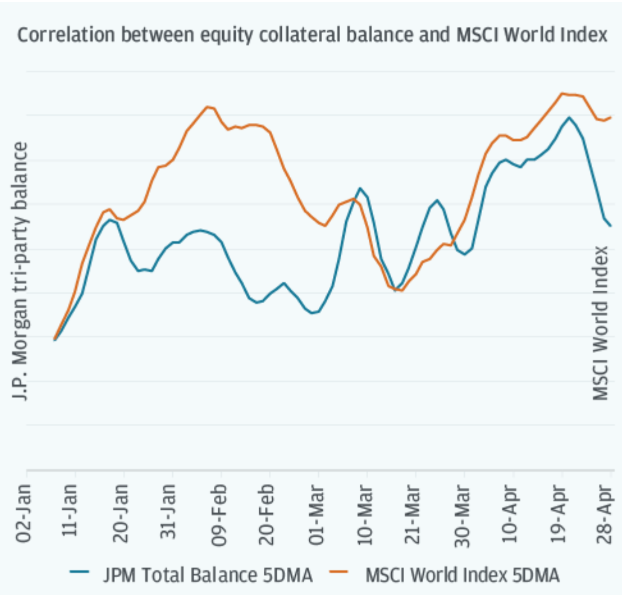


Source J.P. Morgan Tri-party

Equity markets

The J.P. Morgan tri-party equity collateral balance is naturally susceptible to volatility in the wider equity markets and in periods of turbulence, these swings can be more pronounced. Though the entire book is partially hedged against equity volatility via fixed income assets, the equity portion of our book is ~55 percent correlated with the rate of change of the global equity market (MSCI World Index used as proxy for global equity market).

The market and J.P. Morgan equity collateral started 2023 on strong footing with our clients bringing on balances post-year end and the market benefiting from a more positive outlook (think China re-opening and signs that central banks were at the peak of the hiking cycle). Through February, the market saw declines from the strong January peak, investors began to realize that rate hikes were still very much on the menu as inflation prints missed expectations and this bled into our equity collateral balance, with the market down 2.5 percent and equity collateral down 1.8 percent. Through March and April, both the market and equity collateral appreciated as recession fears across developed markets receded despite the scares out of the banking sector and positive economic data prints out of the eurozone in April.

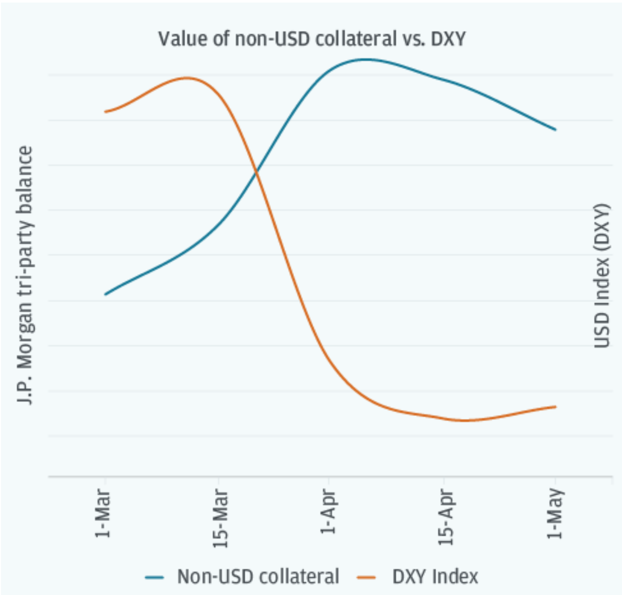


Source J.P. Morgan Tri-party

FX environment

Approximately 60 percent of the collateral in J.P. Morgan Tri-party is non-USD denominated and therefore has exposure to FX moves. U.S. dollar appreciation is a headwind for these assets as they are worth less when converting to USD and 2022 was particularly impactful given the DXY (a measure of USD value) appreciated to a 20-year high of 114.1, driven by a multitude of factors (inflation outlook, pace of rate hikes made by the Fed, global uncertainty and supply chain issues, to name a few).

Through the first four months of 2023 the DXY has depreciated ~2.7 percent and our non-USD collateral has appreciated 10.1 percent (4.1 percent adjusting for Japanese Government Bond seasonal activity) and we see the divergence of USD value and non-USD collateral play out in our program, especially through the last three months.



Source J.P. Morgan Tri-party

MICHELE FILIPPINI
Executive Director
Product Manager

Core Algo

As the J.P. Morgan Tri-party—Collateral Central platform continues to evolve to meet the demands of our global client base, it is important to review any changes to the operating model that are needed to satisfy this more diverse client base. With the addition of new sub-products—CCP margin exchange, uncleared margin and pledge, and varied optimization solutions—flexibility is key to help clients adhere to differing market standards.

The introduction of our new Core algorithm revisits our approach to exposure management and substitutions introducing a broader toolkit for dealing with these new exposure types and operating models.

Through the new Core engine, simulation functionality now supports recalls for the first time, allowing the more efficient projection of next-day collateral requirements.

Performance

With tight deadlines, particularly with CCP cutoff windows for return of debited cash, it is important that the Core engine completes its processing as promptly as possible. Any delay in posting non-cash collateral has an economic consequence measured by the cost of collateral and capital footprint.

Performance and speed of the end-to-end margining process is equally important across all exposure types, such as the collateral allocated to a same-day borrow or an overnight repo as well as initial margin for uncleared derivatives.

Continued investment in our cloud infrastructure is key to achieving further performance improvements in the Core engine and additional reductions in run times.

Flexibility

Because different collateral pools reside in different custody locations within the platform, being able to mobilize, prioritize and deliver the collateral to the correct trade exposure requires a range of flexible solutions.

Reuse is firmly established as an efficient way to mobilize collateral between long boxes, providing the flexibility to pull specific assets using our full range of collateral eligibility tests. This reduces the need for additional market settlement in getting collateral to the right place at the right time.

Prioritization of different pools through our multi-long box development will make collateral from more than one long box available to trade exposures across a single legal entity. In addition, within a long box, substitution requests can be prioritized by market or asset class, making the most of scarce inventory close to market cutoffs.

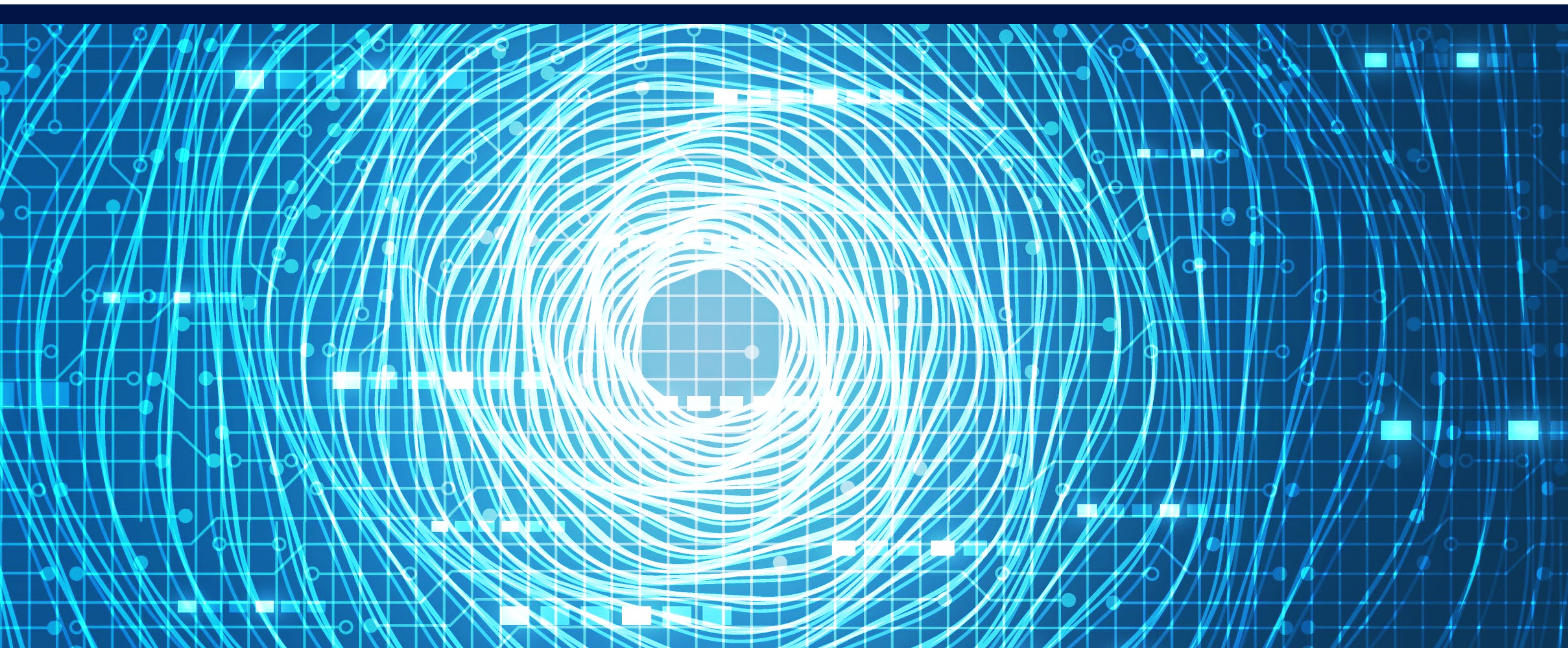
Through the new Core engine, simulation functionality now supports recalls for the first time, allowing the more efficient projection of next-day collateral requirements. This can also help reduce the lockup of collateral at end of the EMEA or Americas business day to satisfy opening Asia Pacific requirements.

Self-service

Expansion of the functionality through the new Core engine also provides the opportunity for our clients to self-serve additional elements of the collateral process. Clients already can create, edit and approve their eligibility rule sets using the portal and while examining the operating flows and interactions our clients have within operations, we are seeing increasing demand for clients to own more of the daily process themselves with appropriate controls.

In early Q3 our clients themselves will be able to replicate many J.P. Morgan functions, including submission of a Core run request, prioritization and reordering of recall requests and collateral allocation to individual collateral accounts. The expansion of self-service will reduce any latency between the client and J.P. Morgan operations as well as allow clients to trigger a process specific to their operating model, aligned to the settlement of securities loans, cash for repo or derivatives margining.

It is an exciting development in the platform's evolution and we thank the many clients who partnered in bringing it to fruition.



GRAHAM GOODEN
Executive Director
EMEA Head of Collateral Services

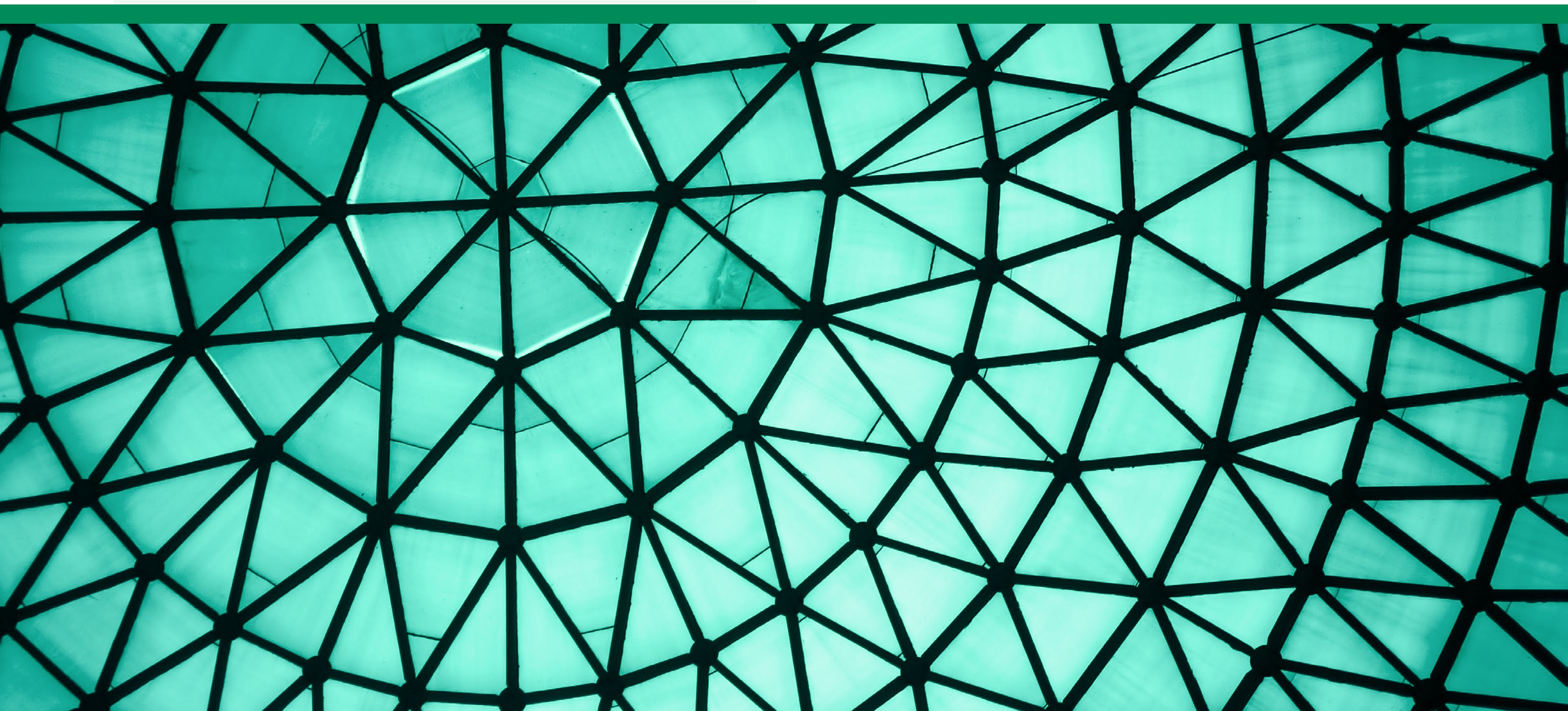
Structured Financing in Tri-party

Structured financing solutions have long been constituent elements of the tri-party ecosystem, as both a source of collateral to be financed and as a vehicle to facilitate broader capital markets activity. In recent times we have seen a renewed interest in some established structures as well as some new applications driven by the imperative to finance trapped assets, improve liquidity and optimize capital allocations. Here, we will explore some of these uses and market application.

Structured financing as a source of collateral

Asset- and mortgage-backed securities, covered bonds and esoteric assets have long been eligible as collateral in tri-party. Key considerations are the transferability of the asset to the tri-party agent to be able to enforce security over the asset, through a custody network or transfer agent, and the availability of pricing for the tri-party agent. By their nature many secured financing assets have limited liquidity and price transparency. That does not mean the security has no value, however; evaluated prices can be made available through data service providers. Consideration should be given to understand the methodology used to calculate the evaluated price and the appropriate haircut to be applied given the type of price used. In tri-party, the collateral receiver can accept or decline the use of evaluated prices, and eligibility tests or haircuts can be configured down to individual CUSIPs or ISINs to reflect risk appetite.

Specific accounts or ring-fenced collateral pools can be established between collateral providers and receivers to facilitate term financing for specific hard-to-finance, less liquid or lower credit inventory.



Collateralization of structured trades

Structured financing activity often includes collateral as the source of credit enhancement, and tri-party can work in consort with corporate trustees and special purpose vehicle (SPV) administrators to collateralize structured finance transactions. Asset-backed commercial paper programs have long participated as collateral receivers in tri-party, accepting collateral in return for cash proceeds from multiple repo sellers; the collateral received is therefore owned by the SPV and providing security to the buyers of the commercial paper issued by the SPV. Collateralized commercial paper is an augmented version of this structure, where the banks or broker-dealer sponsor the SPV and are a single seller for term repos to help diversify their funding sources away from traditional repo counterparties and to institutional investors that are more used to buying commercial paper. Other examples are the use of structured notes to be financed in tri-party, with illiquid securities not readily accepted by usual collateral receivers but combined as a diversified pool with appropriate haircuts and credit ratings. Repacks are another variation, where collateral is held in custody by the collateral manager on behalf of SPVs in partnership with corporate trustees for the note holder.

Structured trades within tri-party

Away from SPV-issued activity, structured trades in tri-party can be more targeted with specific objectives. Contingent funding trades are one example; a dealer can borrow high-quality liquid assets (HQLA) and immediately post the collateral back to the originating counterparty through tri-party, with a view to drawing down on the HQLA in times of necessity, substituting for lower quality collateral and paying a utilization fee. Margin loans are collateralized via control accounts to collateralize equity derivatives or equity market acquisitions. Another structured or augmented trade type from traditional tri-party is the merging of the recent demand-for-pledge transactions with financing activity for either repo or securities lending. Collateral is transferred to the receiver under transfer of title arrangements; the receiver in turn pledges back the principal and/or the haircut received to the original collateral provider, with the benefit of potentially helping to reduce the capital costs.

Looking ahead

Tri-party collateral management is an invaluable tool for structured finance trades. Its ability to enhance operational efficiency, mitigate risks and provide greater transparency and regulatory compliance benefits both counterparties involved. As the structured finance market continues to evolve, the adoption of tri-party collateral management systems is likely to grow, leading to improved efficiency.

Structured financing activity often includes collateral as the source of credit enhancement, and tri-party can work in consort with corporate trustees and special purpose vehicle (SPV) administrators to collateralize structured finance transactions.

RICKIE SMITH
Executive Director
Product Manager

Impact of T+1 Settlement

Background

On May 28, 2024, the U.S. will make the transition from a T+2 to a T+1 settlement cycle with respect U.S. cash equities, corporate debt and unit investment trusts.

The shortened time frame between trade execution and final settlement will drive to increase the overall efficiency of the securities market through reduced settlement risk and liquidity requirements, where there is potential to increase capital efficiency due to the reduced exposure over the settlement period.

Despite these mid- to longer-term benefits, the accelerated settlement cycle is likely to bring about many challenges, with perhaps the biggest being the time frame in which the regulation will be implemented. Firms will need to reprioritize, already inflight, initiatives to focus resources on enhancing systems and processes, from both operational and technology aspects, ahead of the fast-approaching go-live date.

Below we will explore the implications and challenges that firms face across the securities financing industry, from both a loan and collateral perspective, along with tools that can be used to assist in a smooth transition.

While it offers many advantages in enhanced liquidity and reduced counterparty risk, it demands significant development from market participants to enhance technological, operational and risk management frameworks.

Securities finance

Let's delve a little deeper into the operational and technological challenges that may directly affect securities finance market participants, with specific focus on the process of loan recalls, along with time taken to return collateral held against the loan:

- Securities lending programs will need to condense recall time frames to align with the revised settlement cycle. This should be in line with other markets that already operate on a T+1 basis.
- Lending agents may request that underlying clients provide sale notifications on trade date, to ensure timely recalls can be sent to borrowers.
- Borrowers may need to adapt their processes accordingly to avert any potential settlement fails and subsequent penalties.
- Receiving collateral timely will be key. Firms that are not currently using a tri-party agent to manage their non-cash collateral may experience significant operational challenges, where there is need for greater automation to settle collateral through a series of disconnected workflows

How tri-party can help

Managing non-cash collateral through tri-party negates certain operational challenges firms will face when they are managing their collateral obligations bilaterally. Given that market movements into and out of tri-party agents already settle on a T+0 basis, and allocations of collateral between borrowers and lenders are internal off-market allocations, there is no direct impact to tri-party as a result of the accelerated settlement time frames.

However, our clients should consider potentially indirect implications with regard to more efficient inventory management and optimization of collateral:

- From a borrower's perspective, more efficient inventory management processes may be required to identify primary and contingent funding sources needed to meet daily operational requirements
- Lenders' post-trade workflows for managing collateral requirements will need to be evaluated to ensure collateral is being received timely to ensure the loans are released to achieve efficient settlement

Longer term impact

Overall, the move to T+1 settlement for U.S. equities will having far-reaching effects on the securities financing landscape. While it offers many advantages in enhanced liquidity and reduced counterparty risk, it demands significant development from market participants to enhance technological, operational and risk management frameworks. However, it should be seen as a significant step in modernizing the global financial infrastructure.

Collaboration and coordination across all actors in the securities financing ecosystem will be imperative to ensure a smooth and efficient transition.

As we look into the future, it's important to note that discussions are already underway globally, whereby both the U.K. and EU are consulting on a potential move to a T+1 settlement cycle. All of which will no doubt pave a way for a future of mandatory T+0, same-day settlement across all global markets.

KERRYN MCLELLAN
Vice President
Client Service

AGOSTINA BERTOZZI
Analyst
Collateral Services Operations

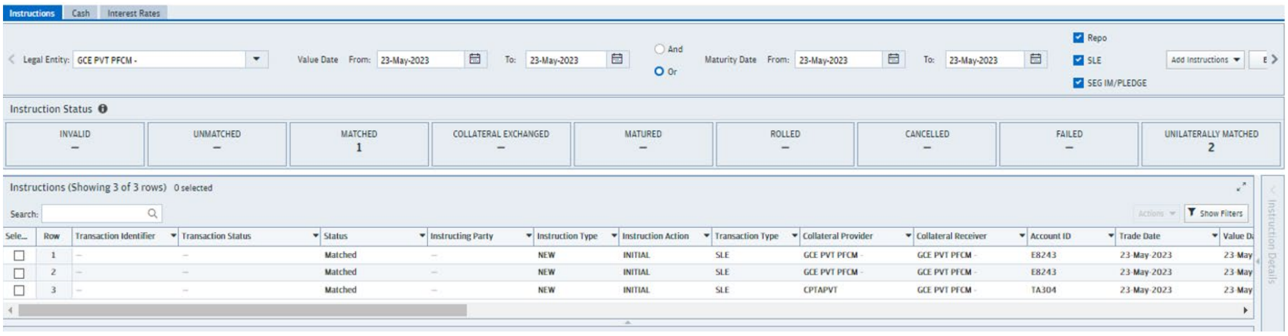
Did You Know?

Multiple deal-processing enhancements have been rolled out across Collateral Central in support of J.P. Morgan's tri-party repo offering, improving user experience by providing better transparency and enhancing the end-to-end workflow.

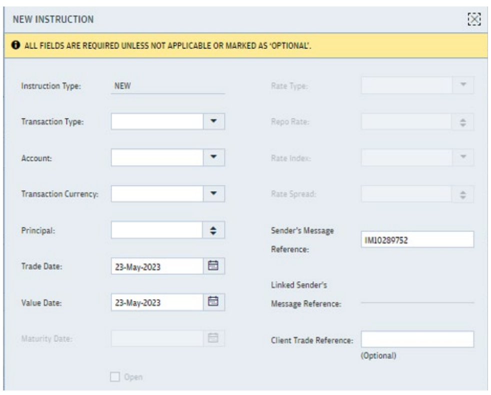
> The repo netting process increases the efficiency, not only in reducing the required available cash obligation to complete the transactions but also in lowering the required collateral needed to cover the obligations within the program.

Instructions tab, real-time updates

The instructions tab allows our clients to see all repo instructions sent or received with counterparties, displaying the live transaction status and the ability to see past instructions from the value date and maturity date filters.



This screen supports manual bookings from the Add Instructions button in case you want to use Collateral Central to send instructions for daily activity or for contingency purposes.



Cash tab

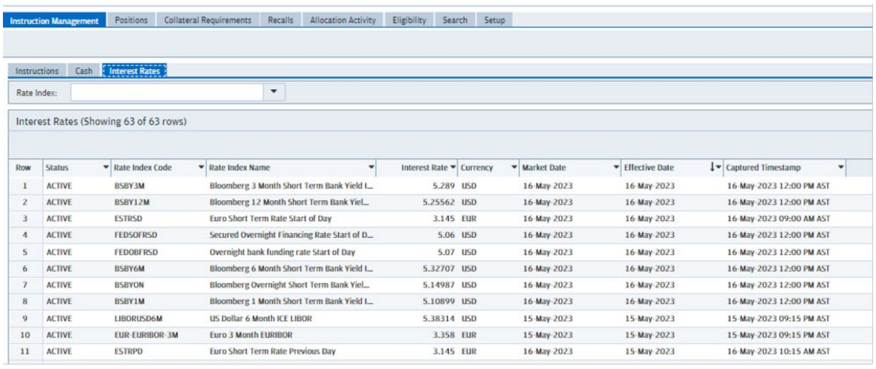
The cash tab consumes real-time information directly from J.P. Morgan client cash accounts. This allows users the visibility of not only their cash balances but also subsequent repo status for any of their active transactions. Further recognition of clients' cash payments within the system helps reduce the turnaround times for processing and lead toward automation in its entirety.

The screen will also disclose the amount owed or due to be received, depending on the activity booked on that certain date. If the client needs to send cash to process their activity, the amount will be shown in red under the currency in which the deal was booked; if the client is entitled to receive the cash, the amount will be shown in bold face.

Importantly, this functionality is achieved due to the cash account operating model whereby segregation of client cash accounts is done by entity and, therefore, at a client level funds are not commingled.

Interest rate tab

The interest rate tab provides up-to-date information related to over 60 interest rates across multiple operating markets, illustrating both the effective and market date. The platform also can identify the current status of each rate, preventing instructions from being booked with an inactive rate.



Row	Status	Rate Index Code	Rate Index Name	Interest Rate	Currency	Market Date	Effective Date	Captured Timestamp
1	ACTIVE	BSBY3M	Bloomberg 3 Month Short Term Bank Yield I...	5.289	USD	16-May-2023	16-May-2023	16-May-2023 12:00 PM AST
2	ACTIVE	BSBY12M	Bloomberg 12 Month Short Term Bank Yiel...	5.25562	USD	16-May-2023	16-May-2023	16-May-2023 12:00 PM AST
3	ACTIVE	ESTRSD	Euro Short Term Rate Start of Day	3.145	EUR	16-May-2023	16-May-2023	16-May-2023 09:00 AM AST
4	ACTIVE	FEDSOFRSD	Secured Overnight Financing Rate Start of D...	5.06	USD	16-May-2023	16-May-2023	16-May-2023 12:00 PM AST
5	ACTIVE	FEDOBFRSD	Overnight bank funding rate Start of Day	5.07	USD	16-May-2023	16-May-2023	16-May-2023 12:00 PM AST
6	ACTIVE	BSBY6M	Bloomberg 6 Month Short Term Bank Yield I...	5.32707	USD	16-May-2023	16-May-2023	16-May-2023 12:00 PM AST
7	ACTIVE	BSBYON	Bloomberg Overnight Short Term Bank Yiel...	5.14987	USD	16-May-2023	16-May-2023	16-May-2023 12:00 PM AST
8	ACTIVE	BSBY1M	Bloomberg 1 Month Short Term Bank Yield I...	5.10899	USD	16-May-2023	16-May-2023	16-May-2023 12:00 PM AST
9	ACTIVE	LIBORUSD6M	US Dollar 6 Month ICE LIBOR	5.38314	USD	15-May-2023	15-May-2023	15-May-2023 09:15 PM AST
10	ACTIVE	EUR-EURIBOR-3M	Euro 3 Month EURIBOR	3.358	EUR	15-May-2023	15-May-2023	15-May-2023 09:15 PM AST
11	ACTIVE	ESTRPD	Euro Short Term Rate Previous Day	3.145	EUR	16-May-2023	15-May-2023	16-May-2023 10:15 AM AST

Repo netting

Repo transactions can automatically net across collateral accounts within a repo seller/buyer relationship, as agreed upon by counterparties.

This function can be supported for different types of resets, such as principal changes, interest resets, maturities and deal openings. However, it does require the cash accounts to be the same currency for both counterparties. The repo netting process increases the efficiency, not only in reducing the required available cash obligation to complete the transactions but also in lowering the required collateral needed to cover the obligations within the program.

Interested in learning more?

For support in reviewing your eligibility, contact your J.P. Morgan Client Service representative

SAGAR PATEL
Executive Director
Product Manager

Untrapped - Mobilizing Assets That Are Hard to Finance or Post as Collateral

There is a universe of assets that have value but face difficulties in financing or being mobilized as collateral. For example, the obstacle could be scarcity of reference data and pricing, the security may be strictly controlled or is not held at a traditional central securities depository. Examples of such trapped assets include loans, private issuances and restricted shares.

> We see a particular opportunity for J.P. Morgan to help clients extract incremental value through mobilizing these assets by leveraging two of our core strengths in automation and optimization.

It's important to enable utilization of all assets to support overall market liquidity and help institutions generate incremental returns while also managing collateral to meet capital and other binding constraints. We see a particular opportunity for J.P. Morgan to help clients extract incremental value through mobilizing these assets by leveraging two of our core strengths in automation and optimization.

Lately we have been working on addressing issues across asset types that have something in common—they are held and recorded at a transfer agent, as opposed to a traditional depository. Here are some examples of asset classes we have already developed solutions for on our tri-party platform.

Restricted shares

One such program of restricted equities alone has tens of billions in outstanding market value. These assets are either not being financed via common financing models or they are being financed through complicated synthetic products that may not be feasible to many organizations. The shares are difficult to mobilize and utilize in a traditional financing and tri-party transaction due to the location and lack of connectivity to financing platforms. The value add for a tri-party agent is to efficiently gain access to the restricted shares at the transfer agent and let borrowers deploy these assets in traditional financing structures that are proven and operationally scalable.

Loans

Another large asset class sits within the debt markets—loans or, particularly, leveraged loans. In many cases, these assets could be used as collateral in specific financing programs but, due to challenges of infrastructure and pricing, they may sit long without generating any incremental value. Firms have portfolios of these assets, which comprise numerous line items and in many cases could be used as collateral for various structures. Settling baskets of loans at the transfer agent may not be feasible from an operational and physical settlement perspective, but certain structures can unleash the assets' incremental value. For example, the loans can stay in their natural home and account at the transfer agent but can be mobilized as collateral in a non-custody tri-party model. In this model, the loans are instructed to be recorded in the tri-party books and records with full functionality of collateral valuation, daily margin management, collateral portfolio optimization, collateral eligibility testing and reporting. Thus, the loans can be mobilized in standard tri-party for distinct financing trades or part of broader financing structures, similar to traditional securities collateral.

Money market funds

Money market funds are a well-known and significant asset class globally. They also reside at a transfer agent but are distinct in that there are many ways to access the funds in the market. For example, custodians offer liquidity portals and various sweep products that transform cash into money market funds. Though access to such funds is fairly standardized, posting them as collateral in models like tri-party has historically been a challenge. Certain collateral eligibility restrictions apply, but some of the most widely held money market funds are eligible as margin, specifically initial margin, which was mandated out of the non-cleared margin rules.

J.P. Morgan has developed a solution that connects our liquidity portal, which offers the ability to buy/sell money market funds with our tri-party platform and its ability to mobilize the shares as collateral. This solution can significantly help the part of the market that is cash rich/ eligible security poor, seeking collateral transformation solutions to obtain money market funds and seamlessly post them as collateral.

In summary

To un-trap and mobilize these types of assets, we must develop a framework and process flow to support its accessibility within the tri-party program. The models mentioned above have unique operational and technological problem statements that include pricing and valuation, reconciliation and connectivity to market infrastructure, including liquidity portals and transfer agents. In addition to operational and technology requirements, such frameworks would also require a compatible legal construct that governs the tri-party setup and relationship with the transfer agent.

J.P. Morgan's position as a broker-dealer, asset and investment manager, custodian and collateral agent—having immediate access to subject matter experts across the various disciplines—allows us to efficiently solve for complex structures. This was particularly apparent as we recently developed the various models mentioned earlier.

We have been identifying asset types, which by virtue of their lack of transparency, location or lack of familiarity have not previously been available for use as collateral in tri-party transactions. If your organization holds securities where access and mobility have been an obstacle, please contact your relationship manager to discuss what type of solutions we can offer.

PHIL ROSS
Executive Director
Product Development

Recent Product Enhancements and Future Releases

Collateral optimization, mobilization and global availability are core to recent and future releases on Collateral Central.

Recent product enhancements

Collateral Central Core algorithm

1H 2023

Description	J.P. Morgan Tri-party has developed and introduced a new Core algorithm to replace the legacy Allocation, Recall and Revalue strategies. The new algorithm is a key part of our investment agenda for 2023, bringing together the various aspects and functionality of the multiple legacy algorithms within Collateral Central into a single process, building complexity into the calculation itself to satisfy client demand. This will reduce the need for customized operational support for complex clients and provides clients with increased self-service capability in future deliverables planned for later in the year. Additionally, there are technology, resiliency and infrastructure benefits from running the Core engine as we continue the migration to AWS.
Users	Collateral providers
Benefits	• Increased success of full book collateralization and recall substitution • Reduced run-time and performance drag

Reuse algorithm enhancements

1H 2023

Description	Target State and Optimization strategies enhanced with additional complex logic to assist when recalling assets through a reuse chain.
Users	Collateral providers
Benefits	• Increased success of recalling assets that have been reused • Increased success of entire strategy completion, without reverting the reuse portion of the moves

Collateral Central analytics reporting

1H 2023

Description	The reporting available after each Core, Optimization and Target State strategy has been enhanced, based on client feedback
Users	Collateral providers
Benefits	Increased transparency and details of accounts considered within the strategy, recalls attempted, residual positions and unallocated rationale as well as information about the order in which things were considered

CCP margin exchange

1H 2023

Description	J.P. Morgan Tri-party has developed an integrated offering with BATON to provide CCP margin exchange collateralization capabilities for clients using their existing profile and asset inventory. CCP accounts are added as additional receiver accounts and securities allocated to these accounts will be posted externally to the relevant CCP, reducing the cash collateral requirement for the client
Users	Collateral providers
Benefits	• Allows collateral providers to manage their CCP obligations using Tri-party's allocation algorithms, removing the need for these to be managed bilaterally • Allows existing pool of collateral held with Tri-party to be utilized • Integration with BATON provides connectivity to more than 10 market-leading CCPs

Deal processing enhancements 1H 2023	
Description	Instruction Management System has been enhanced to provide clients with visibility of active and historical benchmark interest rates used for calculating interest on floating rate repo trades. Enhanced with the ability to calculate the accrued interest on all repo activity and to allow accounts to mirror the collateral requirements of another account, predominantly for use within reuse chains.
Users	Collateral providers and receivers
Benefits	• Gives clients a view into the active and historical benchmark interest rates • Improves efficiency of investigating interest calculation discrepancies

Client reporting enhancements 1H 2023	
Description	Multiple enhancements made to functionality, most at the request of clients, to improve or facilitate certain report requirements. Examples include: • Enhanced repo reporting to be able to display the actual rate received when tracking a floating benchmark rate • Added date information for when prices were received to complex valuation reports
Users	Collateral providers and receivers
Benefits	• Improved client experience

Looking Ahead—Future Releases

Algorithm enhancements

- Core algorithm to be enhanced with the following functionality:
  - Allow the commingling of internal and external allocation movements, and adherence to market cutoff times, so that all accounts can be considered within one strategy
  - The ability to support external allocations at the end of a reuse chain
  - The ability to support multiple long boxes within a single profile
  - Self-service components to improve the operational workflow for clients
  - Proportional release of assets with a zero collateral value
- The ability for clients to instruct Simulation files via an API
- Continued performance and stability enhancements

Collateral eligibility service

- Additional reference data points to be added to expand eligibility testing capabilities
- Delivery of workflow improvements to further automate eligibility rule changes and improve the experience of creating schedules/rules, with a view to offering bulk capabilities

We would welcome to the chance to answer any questions or discuss the topics covered here with you in greater detail. Please contact your J.P. Morgan Client Service Representative.

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