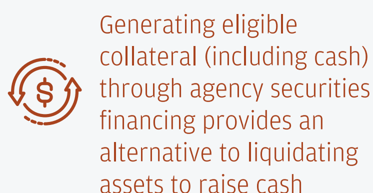
Collateral Damage

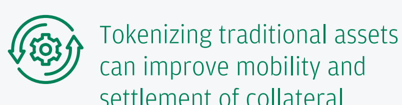
Lessons learned from the U.K. Gilt crisis

J.P. Morgan Trading Services offers alternative solutions to optimise your assets



Generating eligible collateral (including cash) through agency securities financing provides an alternative to liquidating assets to raise cash

Improving operational efficiency can create a broader pool of assets for use as collateral



Tokenizing traditional assets can improve mobility and settlement of collateral

Three days in September

In less than three days in September 2022, 30-year U.K. Gilt yields rose more than 1.60 percent. For U.K. Defined Benefit (DB) pension schemes that typically manage their liquidity based on a scenario of bond yields rising by one percent over a period of a week or more, the size and unprecedented speed of this increase created a perfect storm. They had to quickly generate appropriate collateral to meet sizable margin calls on interest rate swap and FX forward positions[1].

For context, the intraday range of 127 bps on the 30-year Gilt in just one day exceeded the annual range for 30-year Gilts in all but four of the last 27 years [2]. The magnitude of this market move went well beyond the contingency plans that most schemes had in place. Not only were they asked to post very large margin calls in value terms for both cleared and non-cleared trades, but also the Gilts which they had planned to post as collateral for their non-cleared trades were significantly declining in value.

Managers generally hold large pools of Gilts to meet their obligations on non-cleared trades, and they are required to post cash as variation margin (VM) on cleared trades. The size of the U.K. DB liabilities versus the total size of the U.K. Gilt market is significant (£1.4 trillion versus £2.1 trillion respectively) and when managers began selling their liability-driven investments (LDI) and Gilts to raise cash, it perpetuated a vicious cycle of falling prices. Ultimately, we saw the Bank of England step in and buy Gilts to stabilise the price, finally short-circuiting the negative feedback loop.

Understanding the role of LDI in pension schemes

LDI is an important investment strategy for DB pension schemes, used to help meet future pension obligations by more closely matching the pension scheme's assets to its liabilities. It is typically used to protect DB schemes from adverse movements in interest rates and inflation and to reduce the impact on funding levels when interest rates fall.

While pension funds could fully hedge their liabilities by buying zero coupon Gilts with a maturity profile that matches the cash flow of their obligations, a fund that is not fully funded will not have the required cash to buy those zero coupon bonds. Therefore, the fund needs to invest in riskier/growth assets to boost returns. By using leverage, in the form of swaps or repo, the plan can match

the future cash flow profile of obligations.

Swaps are generally directional, with the pension plan receiving fixed rates from a fixed/floating rate interest rate swap (IRS) and receiving the index in an inflation linked swap (ILS). When interest rates rise, the IRS loses money and, as inflation expectations ramp up, the ILS positions make money.

Assessing the scope of the challenge

With a collective £1.4 trillion of liabilities, the size of derivatives positions in U.K. DB schemes is significant, even at relatively low hedging levels. In 2018, a one bps interest rate increase exposed the U.K. pension fund industry to a gross aggregate loss of approximately £900 million and a net interest loss of £100 million[1]. In its November 2018 Financial Stability Report, the Bank of England report analysed the collateral shortfall for pension funds at 25, 50 and 100 bps moves: at a 100 bps move, the Bank of England calculated a collateral shortfall of £1.43 billion on GBP interest rate swaps but noted “this assumption is very conservative[3].” According to the report, larger interest rate shocks do not tend to occur on a single day; in fact, a 100 bps increase over a single day or a single week had not been experienced in 10-year sterling swap rates looking back to 1990. Increases that occur over a longer term would give firms enough time to take mitigating actions.

As Gilt yields moved higher at the end of September, pension schemes needed to act quickly to fund large margin calls. Many reported liquidating significant amounts of money market funds to post cash to collateralise their cleared and bilateral derivatives positions. Once the Bank of England stepped in and markets retreated, the schemes received a significant proportion of that VM back and were required to reinvest it.

Are there alternative solutions?

Like any perfect storm, those few days last September resulted from an unusual confluence of circumstances. Nonetheless, the event highlighted certain stress points that could occur again. It’s therefore worth exploring other strategies that could help to manage liabilities or mitigate the impact of another market event for pension schemes or other buy-side institutions.

J.P. Morgan’s Trading Services business has worked closely with clients and industry partners to develop innovative ways to unlock assets for use as collateral, mobilise them more quickly and improve the ability to optimise resources against obligations.

1. **Generating eligible collateral (including cash) through agency securities financing provides an alternative to liquidating assets to raise cash.**

   The need to generate appropriate, eligible collateral forced some clients to liquidate equity or fixed income assets in September. Using an agency financing solution, clients could access a pool of counterparties for deep and diversified liquidity, even in times of market stress. J.P. Morgan’s Agency Securities Finance platform utilises a traditional securities lending framework to allow clients to generate cash from their equity and credit portfolios, in addition to accessing sovereign debt repo.

   Clients can raise funds in USD, EUR and GDP with transactions structured to meet tenors from overnight to six months. We arrange, execute and manage the entire transaction lifecycle, reducing the legal, operational and infrastructure burden on clients. While we see the greatest interest in using corporate bonds or equities such as S&P, Euro Stoxx and FTSE, we are looking to broaden options for fixed income repo.

2. **Improving operational efficiency can create a broader pool of assets for use as collateral.**

   The September crisis primarily centered on shortfalls that needed to be addressed in order to post VM. However, by creating a more efficient process for initial margin (IM), the available pool of eligible collateral to be used as VM could be increased, giving participants access to more options.

   One option is to utilise a broader pool of assets to meet IM requirements. While many clearing houses (CCPs) accept equities as IM, the buy side can be reluctant to use these assets since managing corporate actions can be complicated and restrict the ability of portfolio managers to trade them freely.

   An outsourced collateral management solution can mitigate operational complexity to allow clients to seamlessly post a broader range of assets as IM using a variety of solutions. With the implementation of Uncleared Margin Rules, sophisticated pension funds are leveraging tri-party to post IM. Using J.P. Morgan’s asset mobilisation offering, Collateral Transport, we can help those clients optimise between the securities they post as collateral and the securities they make available in their securities lending programs. Collateral Transport assists buy side institutions with their securities inventory management across their custody and collateral locations. Optimisation occurs daily, helping clients go beyond minimising counterparty risk to improve how efficiently they use valuable collateral resources.

3. Tokenizing traditional assets may improve mobility and settlement of collateral.

During the market events in September 2022, the pension funds may have had significant offsetting margin calls between their rates and inflation trades. Accelerated collateral settlement timeframes could have helped to reduce the impact of volatile markets and cope with the time pressures of meeting margin calls for those market participants who had to post large VM calls on their IRS positions before they received their VM gains on their ILS transactions. As the collateral industry considers how best to utilise blockchain technology, we believe that the instantaneous transfer of ownership which blockchain facilitates to be particularly relevant.

J.P. Morgan is working with clients and industry participants to develop suitable use cases for this technology and with that in mind, we are developing our Tokenized Collateral Network ("TCN"), which is an application that will leverage J.P. Morgan's Blockchain network, Onyx Digital Assets. The TCN has the potential to tokenize assets - a token is not a standalone asset in its own right but is a record of rights to an underlying security whether transferred via title transfer or as pledge. Our discussions with clients on the application of this technology have been wide ranging, with tokenization providing potential solutions to challenges such as allowing movement of U.S. Treasuries outside of standard market hours or freeing trapped assets that are typically hard to fund.

One use case which may have proven particularly useful during the U.K. Gilt crisis would have been the tokenization of Money Market Funds (MMFs). Traditionally MMFs have not been used as collateral due to the difficulties of transferring them. However, in tokenized form, they could be used to meet VM calls quickly and at scale. J.P. Morgan proved out this use case in May 2022, tokenizing and transferring MMF units between two J.P. Morgan entities using its proprietary Onyx blockchain. Given the significant potential benefits, we are working closely with the industry to create tokenized MMFs from a range of fund managers and enlarge the pool of sell side counterparties that will accept them as VM. Widespread adoption will require resolving cross-jurisdictional issues relating to their acceptance, including Net Stable Funding Ratio implications for the sell side.

Conclusion

For pension schemes and other buy-side institutions, there are important lessons to be learned from the unusual events in the U.K. of September 2022. Their contingency plans had to be rapidly altered when markets shifted in unexpected ways.

While the market conditions were specific to the U.K., we are seeing a shift in interest globally as clients take stock and re-examine their approach to collateral and funding holistically. To weather future storms, institutions will want to maximise their collateral flexibility by having the fullest possible range of assets available and most importantly mobilising, allocating and optimising those assets as collateral quickly and effectively.

We understand that the solutions to these challenges may not be a one size fits all approach, and that clients may mix and match a variety of the approaches discussed here in order to solve their specific needs.

At J.P. Morgan Trading Services, we look forward to innovating in partnership with our clients to harness new solutions that support holistic asset inventory management to optimise lending, financing and margin obligations.

1 *In 2018, U.K. pension funds had in aggregate £180bn of GBP exposure as they hedged their FX risk on foreign equities and other investments using FX forwards. Bank of England, Financial Stability Report, November 2018*

2 *https://committees.parliament.uk/publications/30136/documents/174584/default/*

3 *https://www.bankofengland.co.uk/-/media/boe/files/financial-stability-report/2018/november-2018.pdf*

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J.P. Morgan has been providing Agency Securities Finance services for over 40 years and Collateral Services for over 25 years, combining the high touch, knowledgeable service of a bespoke provider with the security and risk management capabilities unique to a global investment bank.

We provide a unique proposition to our clients that draws on the expertise and infrastructure of J.P. Morgan's Corporate & Investment Bank, Securities Services and Asset Management businesses.

To learn more about J.P. Morgan's Trading Services solutions, please contact us:

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