FMSB

# Pre-hedging: case studies

**Spotlight Review**
**July 2024**

# About us

## Financial Markets Standards Board

Financial Markets Standards Board Limited (FMSB) is a private sector, market-led organisation created in light of the recommendations in the Fair and Effective Markets Review (FEMR) Final Report in 2015. One of the central recommendations of FEMR was that participants in the wholesale markets should take more responsibility for raising standards of behaviour and improving the quality, clarity and market-wide understanding of trading practices. Producing guidelines, practical case studies and other materials that promote the delivery of transparent, fair and effective trading practices will help increase trust in wholesale markets. FMSB brings together people at senior levels from a broad cross-section of global and domestic market participants and end-users. In Committees and Working Groups, industry experts debate issues and develop FMSB Standards and Statements of Good Practice and undertake Spotlight Reviews - like this one - that are made available to the global community of financial market participants and regulatory authorities.

## Spotlight Reviews

Spotlight Reviews encompass a broad range of publications used by FMSB to illuminate important emerging issues in financial markets. Drawing on the insight of Members and industry experts, they provide a way for FMSB to surface challenges market participants face and may inform topics for future work. Spotlight Reviews will often include references to existing law, regulation and business practices. However, they are not intended to set or define any new precedents or standards of business practice applicable to market participants.

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# **Section I:** Introduction

## 1. Explanation

**1.1.** A founding objective of FMSB[1] is to 'address areas of uncertainty in specific trading practices' through the development of guidelines and practical case studies. In principal markets, there remains uncertainty as to how and when pre-hedging may be undertaken, the rationale and client benefits deriving from the activity as well as the distinction between inventory management, pre-hedging and front running.

**1.2.** When considering pre-hedging, there are four fundamental questions to address:

**1.2.1.** what constitutes pre-hedging;

**1.2.2.** in what circumstances is it appropriate to undertake pre-hedging;

**1.2.3.** how should pre-hedging be disclosed to clients, at what point in the trading relationship and to what extent should this vary depending on the sophistication of the client/counterparty;

**1.2.4.** what policies, procedures, systems and controls should a liquidity provider (or 'LP') have in place where it does engage in pre-hedging.

**1.3.** This paper, through illustrative case studies, seeks to consider points 1.2.1 – 1.2.3 in relation to future market conduct. It is intended to advance the industry debate on pre-hedging but not codify standards of behaviour. FMSB will determine if standard-setting work would be beneficial in this area in due course taking into account international regulatory developments.

**1.4.** The Core Principles relating to pre-hedging activity set out in FMSB's Large Trades Standard[2] and FX Global Code form the cornerstone of this paper. The case studies are intended to be consistent with, and consider the practical implementation of, these principles in different contexts.

**1.5.** This Spotlight Review considers pre-hedging across principal markets. However, nuances may apply depending on the characteristics of particular asset classes as drawn out in the individual case studies.

**1.6.** The case studies (except 1(c)) all concern pre-hedging for illustrative purposes. However, that is not intended to imply pre-hedging will normally or typically be appropriate in all similar fact patterns – rather, the case studies are designed to illustrate some of the key principles concerning when pre-hedging may or may not be appropriate and the practical steps to be taken in managing some of the risks arising.

## 2. What is pre-hedging?

**2.1.** Pre-hedging is not defined under EU or UK law. However, ESMA in its Call for Evidence noted that the practice is generally understood as hedging where 'liquidity providers aim to hedge inventory risk in an anticipatory manner'[3]. More specifically, ESMA refers to 'any trading activity undertaken by an investment firm, where (i) the investment firm is dealing on its own account, and the trading activity is undertaken (ii) to mitigate an inventory risk which is foreseen due to a possible incoming transaction, (iii) before that foreseeable transaction has been executed, (iv) at least partially in the interest and benefit of the client or to facilitate the trade'. The UK FSA in its Final Notice against Morgan Grenfell[4] referred to pre-hedging being 'using information provided by the customer for the purpose of obtaining a quote in order to manage the risk to

[1] Fair and Effective Markets Review, p7
[2] Core Principles 2 and 7 of FMSB Large Trades Standard
[3] ESMA Report on Pre-Hedging, p7
[4] See Morgan Grenfell Final Notice dated 2004

which the broker will be exposed in the event that it wins the trade'. This document adopts the ESMA definition, noting that it is consistent with FMSB's definition in the Large Trades Standard.

**2.2.** As per (iii) above, pre-hedging may take place following the request for quote (or 'RFQ') or order inquiry up to the point the client accepts the quote or the order becomes irrevocable. From this point onwards, risk management activity is considered hedging as the risk transfer has occurred.

## 3. Key characteristics of pre-hedging, front running and inventory management

**3.1.** Pre-hedging and front running have long been the subject of regulatory focus. Enforcement action in the US[5] and Australia[6] as well as suspicious transaction reports submitted to regulatory authorities in Europe have triggered renewed attention on current market practices.

**3.2.** Pre-hedging activity is subject to a range of regulatory requirements including those applying to the use of confidential client information, the management of conflicts of interest, principles of fair dealing and good faith and communicating in a manner that is fair, clear and not misleading. Additionally, market abuse regimes in different jurisdictions set out prohibited behaviours when trading on the basis of, and ahead of, a client order or request for a quote (including front running).

**3.3.** Key distinguishing characteristics of front running, pre-hedging and inventory management are outlined below. As highlighted in the table, the distinction between pre-hedging and front running may turn on the actual (or deduced) intention or purpose of the liquidity provider at the point of trade.

| Key characteristics | Front running | Pre-hedging | Inventory management |
|---|---|---|---|
| Uses information provided by the customer relating to an upcoming trade or trades | ✓ | ✓ | |
| Necessitates knowledge as to nature of an anticipated trade e.g. indication as to instrument, size, direction etc. | ✓ | ✓ | |
| Transaction solely for a person's own benefit taking advantage of the anticipated impact of the trade on the market | ✓ | | |
| Designed to benefit the client and executed in a manner not meant to disadvantage the client | | ✓ | |
| Uses client information in the normal exercise of its function as a market maker / a person that may lawfully deal in instruments on their own account | | ✓ | ✓ |
| Short-term strategy to manage immediate anticipated risk exposure from an expected or potential client trade or trades (taking into account the overall exposure of the market participant across its portfolio) | | ✓ | |
| Ongoing activity whereby traders monitor and adjust positions to respond to market fluctuations and optimise inventory holdings (referred to as reasonably expected near-term demand in some jurisdictions) | | | ✓ |

[5] CFTC Proceedings pursuant to Section 6(c) and (d) of the Commodity Exchange Act, in the matter of Mizuho Capital Markets LLC
[6] See ASIC v Westpac Banking Corporation [2024] FCA 52

## 4. Industry guidance

**4.1.** In addition to the legal and regulatory requirements outlined above, industry guidance and market standards have developed in this context.

**4.2.** In FX markets, pre-hedging is subject to Principle 11 of the FX Global Code which states that a 'market participant should only pre-hedge client orders when acting as a principal, and should do so fairly and with transparency'. Principle 11 provides that:

> *'Pre-hedging is the management of the risk associated with one or more anticipated client orders, designed to benefit the client in connection with such orders and any resulting transactions. Market participants may pre-hedge for such purposes and in a manner that is not meant to disadvantage the client or disrupt the market...*
>
> *When considering whether pre-hedging is being undertaken in accordance with the principles above, pre-hedging of a single transaction should be considered within a portfolio of trading activity, which takes into account the overall exposure of the market participant.'*

**4.3.** For FICC markets more generally, FMSB's Standard for the execution of Large Trades provides that 'Pre-hedging should only be undertaken where: (i) the dealer legitimately expects to take on market risk and is undertaken at the dealer's own risk; (ii) the trading activity is reasonable relative to the size and nature of the anticipated transaction; (iii) it aims to minimise the impact of the activity on the market; and (iv) it is designed to benefit the client and not executed in a manner that is meant to disadvantage the client.'

**4.4.** The Standard cites examples of where pre-hedging is considered to be designed to benefit the client including where a pre-hedging strategy is designed with a view to: (i) facilitating client transactions; (ii) ensuring the effective provision of liquidity to fulfil client transactions; and/or (iii) improving the quality of execution of associated client transactions. This principle does not require the direct pass-through of any financial benefits derived from pre-hedging by the dealer to the client.

**4.5.** The Standard also provides that 'pre-hedging should only be undertaken where the client has been made aware in advance that pre-hedging may take place and could have an impact on the market price of the instrument. The dealer should consider, taking into account factors such as the expertise of the client, the nature of the client relationship and frequency with which the client enters into comparable transactions, whether it is necessary to make such disclosure on a trade-by-trade or other basis'.

**4.6.** However, the FMSB Large Trades Standard only applies to outsized trades[7]. The FXGC is limited in its application to FX markets.

**4.7.** The case studies below are intended to be consistent with – and add some additional practical guidance to - both the existing regulatory framework and industry standards.

[7] Defined as 'a transaction or set of transactions, which is, or together are, substantially larger than the observed liquidity in the relevant product market around the time of execution, and which could be reasonably expected to have a material impact on prices in the market or related markets.'

# Section II: Case studies

## 1. Introduction

**1.1.** Case studies 1-3 focus on trading practices in different RFQ scenarios across fixed income, FX and exchange traded funds (ETFs). The focus on RFQs is due to (i) their widespread use across the relevant markets; (ii) regulatory scrutiny of these transaction types[8]; and (iii) the absence of existing guidance for pre-hedging in such a context[9].

**1.2.** Case study 4 concerns risk management activity around a new issuance. Market practices are evolving in this area (including the associated pricing of new issuance swaps) with corresponding implications for risk management hence the inclusion of the example in the paper. This Case Study should be read in conjunction with FMSB's Standard for Risk Management Transactions for New Issuance.

**1.3.** The case studies illustrate that pre-hedging currently takes place in relation to transactions across asset classes and the corresponding liquidity spectrum and the activity is not confined exclusively to managing risk in the context of outsized trades. Pre-hedging may take place in a voice or electronic context as highlighted by the case studies.

## 2. Factors influencing pre-hedging

### *Pre-hedging factors*

**2.1.** Any pre-hedging that a liquidity provider undertakes should be consistent with applicable law and regulation in the relevant jurisdiction as well as the principles set out in Section I, paragraph 4.3. above.

**2.2.** Whether, and the extent to which, pre-hedging is appropriate is likely to be informed by the factors outlined below. Pre-hedging may take place in the instrument to which the request for quote or order inquiry relates or in correlated instruments (e.g. instruments with adjacent maturities, futures or correlated indices). Pre-hedging principles apply irrespective of the instrument used to manage the risk.

**2.3.** Market participants cite a broad range of factors which may be relevant in determining if, and the extent to which, a liquidity provider pre-hedges. These factors can be grouped into three broad categories:

**2.3.1.** Client considerations

- Client consent / express request not to pre-hedge
- How the client may benefit from the activity
- Client relationship
- How often the client requests RFQs that do not result in a trade

**2.3.2.** Transaction / market considerations

- Liquidity of the instrument
- Size of the transaction
- Prevailing market conditions and any relevant pending market events
- Spread compression and any potential price impact of pre-hedging as well as the degree to which the price impact is expected to decay over the pre-hedge horizon
- Method of execution – voice; electronic; algorithmic (this will influence, among other things, the timing and nature of disclosures)

[8] See ESMA Call for Evidence on pre-hedging
[9] Subject to the FX Global Code which provides some examples for FX markets

- Trading protocol - RFQ (bilateral or competitive; number of liquidity providers in competition; information on direction of RFQ); orders or enquiries; price streaming
- Public transparency regime for instrument

**2.3.3.** Liquidity provider considerations

- The nature of the relationship between the liquidity provider and client/counterparty and the service being provided
- Position of liquidity provider's book at point of request taking into account its overall exposure across its trading activity
- Likelihood of additional near-term related transactions.

## Areas of focus

From the above list, the following are areas of heightened focus for market participants. This paper does not opine on whether any of these items should be determinative when considering the appropriateness or otherwise of pre-hedging.

### Liquidity and prevailing market conditions:

- The liquidity of a product is an important consideration in determining both the need to engage in, and extent of, any pre-hedging. A sub-set of market participants – on both sides of the market – are of the view that, when responding to RFQs in liquid products in normal market size, it is not necessary to engage in pre-hedging and demonstrating corresponding client benefit is challenging. However, this does not reflect a broad market consensus with some liquidity providers of the view that reduced spreads that result from pre-hedging can more than offset any adverse impact on the client's execution price.
- For less liquid instruments, pre-hedging is an important risk management tool with client benefit potentially deriving from the fact that the liquidity provider – as a result of pre-hedging (i) is able to facilitate the transaction; (ii) ensures the effective provision of liquidity to fulfil client transactions; and/or (iii) improving the quality of execution associated with the client transaction. However, due to the illiquidity of the market, the price impact of pre-hedging activity will likely be more material than for more liquid products. Adequate disclosure and minimising the market impact of pre-hedging is therefore of particular importance to users in this context.
- Any distinction between the treatment of pre-hedging in liquid versus illiquid markets faces definitional challenges with quantitative, cross-asset class thresholds being difficult to determine. A qualitative approach, which puts the onus on market participants to determine when a market is liquid or illiquid using their professional judgement, may be achievable but could lead to varying approaches across firms.

### Size:

- Alongside liquidity, transaction size is a material consideration for pre-hedging strategies. The larger the ticket size, typically the greater the need to manage risk in anticipation of a transaction. Risk management over an extended time horizon can benefit the client by enabling the dealer to 'charge reduced spreads that more than offset any adverse impact the pre-hedging activity has on the execution price'[10] or otherwise ensure the effective provision of liquidity to fulfil client transactions. However, similar to illiquid products, larger transactions, and the risk management techniques used in relation to such transactions, may have more market impact and if executed in an aggressive manner could be detrimental to the client.

### Method of execution:

- Electronic versus voice: For transactions that are both received and executed through electronic means with no voice intervention, some market participants are of the view that it is not necessary to engage in pre-hedging. This is on the basis that transactions received and executed through

[10] Muhle-Karbe, J and Oomen, R., Pre-Hedging (April 2024)

this medium typically do not relate to outsized and illiquid instruments. Furthermore, the ability of liquidity providers to disclose pre-hedging activity in a timely manner pre- and per-trade is constrained. A distinction between electronic versus voice flow could therefore provide a workable bifurcation of where pre-hedging activity is permissible. However, this view is not widely held with many market participants viewing this distinction as artificial and that pre-hedging principles should be consistent across execution methods[11].

- Auto pre-hedging: Auto pre-hedging is where a liquidity provider systematically pre-hedges on receipt of a client request and before responding to the client with a price. Feedback from liquidity providers suggests that auto pre-hedging is not currently a widely used technique in wholesale markets. The systematic nature of the activity means that there is no opportunity for case-by-case consideration of the potential costs and benefits of pre-hedging. Concerns have been expressed by market participants regarding the transparency and client benefits of this practice. The case studies do not consider the merits or otherwise of auto pre-hedging and it is a topic that warrants further consideration.

## Trading protocol:

- Competitive RFQs: A sub-set of market participants believe that pre-hedging should not be undertaken in a competitive RFQ context. The primary rationale for this is that if all, or some, recipients of a RFQ pre-hedge, the cumulative impact of the activity may adversely impact the mid-price resulting in a worse execution price for the client. Other market participants are of the view that, through pre-hedging, liquidity providers can offer reduced spreads to the client that more than offset any adverse impact the pre-hedging activity has on the execution price giving rise to a pricing benefit for the client.
- These considerations may inform the trading protocol that clients elect to use and the number of liquidity providers they put in competition.

## Post trade review:

- Undertaking post-trade reviews of the market and client impact of pre-hedging can help promote confidence among clients and other stakeholders that the LP's pre-trade intent of designing pre-hedging activity to benefit the client is borne out when looking at actual outcomes.
- However, isolating and evaluating the actual impact of any pre-hedging activity on the market is challenging, notably in a flow context. Pre-hedging takes place in a dynamic market environment and therefore attributing price movements to specific pre-hedging activity can be difficult. Furthermore, while the intent of pre-hedging is to benefit the client, this does not mean that there is a guarantee in every case that pre-hedging will result in a better price for the client.
- The post-trade section in the table in paragraph 3 below outlines existing good practices with respect to the oversight of pre-hedging activities to validate that they are consistent with applicable industry codes and standards. However, a post trade review process that delivers added value and comfort to clients around the actual outcomes of pre-hedging activity whilst being proportionate and implementable for liquidity providers taking into account the above challenges warrants further consideration.

[11] As per, for example, the Global Foreign Exchange Committee: Commentary on Principle 11 and the role of pre-hedging in today's FX landscape (July 2021) ('FXGC Pre-Hedging Guidance')

## 3. Key considerations for liquidity providers and clients across the trade lifecycle

The table below sets out existing FMSB guidance applicable to pre-hedging deriving from the FMSB Large Trades Standard[12]. The guidance is grouped according to the part of the trade lifecycle to which it relates - pre-trade, execution or post-trade. The corresponding considerations derive from the case studies and may supplement the existing guidance.

| | Existing FMSB guidance (Large Trades) | Considerations |
|---|---|---|
| **Pre-trade** | 'Pre-hedging should only be undertaken where the client has been made aware in advance that pre-hedging may take place and could have an impact on the market price of the instrument. The liquidity provider should consider, taking into account factors such as the expertise of the client, the nature of the client relationship and frequency with which the client enters into comparable transactions, whether it is necessary to make such disclosure on a trade-by-trade or other basis.' | • Liquidity providers to take reasonable steps to promote client understanding of their pre-hedging practices. The frequency of disclosures to achieve this, and whether they are made on a periodic or trade-by-trade basis may be informed by factors including the method of execution, the nature and size of the transaction, the expertise of the client, the nature of the client relationship and frequency with which the client enters into comparable transactions.<br>• Liquidity providers to, where applicable, disclose that pre-hedging may negatively impact the liquidity or price that the client receives and highlight that such negative market impact or client outcome may be greater in illiquid products or during periods of low market liquidity.<br>• For transactions executed through electronic platforms, transaction-specific communications will typically not be practicable. LPs instead implement periodic, ex ante disclosures.<br>• For Large Trades the timing and frequency of disclosure should follow the guidance set out in the Standard. |
| **Execution** | 'Pre-hedging should only occur where the liquidity provider expects to take on market risk and is undertaken at the liquidity provider's own risk.' | • A liquidity provider should not use the information value inherent in a client request to inform its own trading activity ahead of the client trade without a legitimate expectation of winning such trade. |
| | 'Pre-hedging should be reasonable relative to the size and nature of the anticipated transaction taking into account the prevailing market conditions.' | • For competitive RFQs, any pre-hedging should be reasonable relative to the size of the RFQ taking into account the number of liquidity providers in competition where this is visible to the LP. |
| | 'Pre-hedging should aim to minimise the impact of the activity on the market and be designed to facilitate the transaction.' | • Liquidity providers should not pre-hedge in a manner that they intend to, or is reasonably likely to, disrupt the market.<br>• The market impact of pre-hedging in illiquid instruments is likely to be more material and needs to be carefully managed. |

[12] This in turn is consistent with Principle 11 of the FXGC

| | Existing FMSB guidance (Large Trades) | Considerations |
|---|---|---|
| | 'Pre-hedging should be designed to benefit the client and executed in a manner that is not meant to disadvantage the client.' | • Liquidity providers should consider the client's overall execution outcome when pre-hedging. This means considering both if pre-hedging enables the dealer to charge reduced spreads as well as any potential adverse impact pre-hedging activity may have on the execution price.<br>• An example of where pre-hedging is beneficial to clients is where it enables the liquidity provider to charge reduced spreads that more than off-set any adverse impact the pre-hedging activity has on the execution price (other potential benefits of pre-hedging – including facilitating a client transaction - are set out in Section I, paragraph 4.4 above).<br>• Any market activity of a liquidity provider using the information value of a live RFQ should be designed to benefit the client. This is the case irrespective of whether it is a one-way or two-way request.<br>• Pre-hedging in index-based products (such as ETFs) should not be undertaken if improvements to client pricing or other benefits of pre-hedging are not likely to be present. This is because, in the context of index products: (i) the exact instruments underlying the index may be unknown and the time to transact in them will be longer than the RFQ is live; (ii) there is typically sufficient liquidity, where necessary, to hedge the risk in underlying instruments or correlated indices post-execution rather than in anticipation of the transaction; (iii) RFQs are typically shared with a larger number of liquidity providers meaning that the potential cumulative impact of any pre-hedging is greater. |
| **Post-trade** | N/A | • Liquidity providers should ensure that oversight of pre-hedging activities is incorporated into appropriate supervisory frameworks and is consistent with applicable industry codes and standards. To the extent that any adverse client outcome trends are identified, these should be addressed, and the output of such oversight should be used to inform future pre-hedging activity.<br>• In the case of a large trade[13], if reasonably requested by a client, and subject to appropriate confidentiality and information handling restrictions, liquidity providers should provide the client with information on the pre-hedging activity undertaken and, where possible, the general observed impact of such pre-hedging activity on the client execution. |

[13] As defined in FMSB's Large Trades Standard

# **Case study 1a** – RFQ in liquid instrument

## Scenario

Client sends a competitive RFQ through an electronic trading venue to 4 LPs in a liquid instrument. The request is to buy (1-way price) in normal market size. Lowest overall purchase price wins. LPs are aware of how many banks are in competition. The client has received an annual disclosure from each of the LPs stating that they may pre-hedge client trades.

LP's A and C pre-hedge 10% and 25% of the RFQ respectively at the point of receiving the RFQ. LPs B and D do not pre-hedge.

LP C quotes the most competitive price and wins the RFQ.

## Key features of case study

- Competitive RFQ
- 1-way request
- Electronic platform
- Highly liquid instrument
- Normal market conditions
- Normal trade size

## Pre-hedging considerations

### Liquidity of instrument

- Price sensitivity of the RFQ and any associated pre-hedging is likely to be relatively low as the market is liquid at the point of the request and the trade is in a normal market size.
- Impact may be greater where a liquidity provider has pre-hedged a significant amount of the anticipated transaction.

### Liquidity provider considerations

- LPs A and C may be more comfortable in showing a tighter price to the client as they have pre-hedged a proportion of the trade. The client may receive a tighter spread-to-mid as a result of the pre-hedging. However, as liquidity providers do not know whether their competitors will pre-hedge this may create uncertainty as to how much an individual LP should tighten its spread-to-mid potentially impacting the client price.
- The impact of the cumulative hedging of LPs A and C may adversely impact the mid-price resulting in a worse overall price for the client. Other trades may be executed in the market which influence the mid-price.
- Pre-hedging a more material proportion of the client trade in a short time window may increase the impact of the activity on the market. Demonstrating how this activity is designed to benefit the price for the client and not executed in a manner that is meant to disadvantage the client may be more challenging.

### Number of LPs in competition

- There may be greater risk of both information leakage and price slippage when a buy-side participant requests quotes from more LPs as more market participants are privy to the information.

- Conversely, where there are fewer LPs in competition, the market footprint of any individual LP is more observable. Additionally, the competitive pressure of the RFQ will be lower where there are fewer other LPs to beat.
- Trades not in competition may be subject to greater customer scrutiny.
- There is an expectation that greater competition between liquidity providers will lead to tighter pricing. However, this may not be universally applicable. LPs may quote wider when in competition with more firms given that there will be greater awareness of the flow going through the market and therefore potentially making it more challenging to cover the risk should the LP win the trade (sometimes referred to as 'winner's curse').
- LPs need confidence that customers are not putting out multiple RFQs for the same trade.
- Typically, a LP will have a very short time window to respond to an RFQ of this nature. This limits the ability of the LP to manually pre-hedge. However, automated or algorithmic trading techniques may give firms the technical capability to pre-hedge even in very short time windows.

# **Case study 1b** – application of pre-hedging principles to 2-way RFQs

## Scenario

Client sends a competitive RFQ through an electronic trading venue to 4 LPs in a liquid instrument. The request is for a **2-way price** in normal market size. Lowest overall purchase price wins. LPs are aware of how many banks are in competition. The client has received an annual disclosure from each of the LPs stating that they may pre-hedge client trades.

LPs A and B quote wide. LP C skews its price to buy to reflect how they are axed. LP D, based on historic dealings with the client and the prevailing market environment, is confident that the client wants to buy and enters the market to purchase a portion of the instrument at the point of receipt of the RFQ before quoting to the client. LP D prices most competitively and wins the RFQ.

## Key features of case study

- Competitive RFQ
- 2-way request/request for market
- Highly liquid instrument
- Normal market conditions
- Normal trade size

## Pre-hedging considerations

### Client request type – Request for market

- Clients may ask LPs for a 2-way to gauge market conditions and LP pricing or to not reveal the direction of a potential trade.
- Client may send 2-way request as an indication that they do not want the LP to guess the intended direction of the trade and pre-hedge. Alternatively, the client may state that it does not want the LPs to pre-hedge the proposed transaction.
- The LP may be able to predict the direction based on prior market flows, current market conditions or previous dealings with the client. Where the LP has a high degree of confidence as to the client's direction, the relevant considerations should be consistent with those in 1(a).
- Pre-hedging is likely to be less prevalent for two-way requests given the added uncertainty as to the direction the client will trade.

### Pre-hedging or live inventory management

- LP C skewing the price it quotes to reflect how its book is axed is standard activity of a market maker. Depending on the position of its book and the ultimate direction the client wishes to trade, the skew may or may not be in favour of the client trade and the client can then act on that information (either by awarding the trade to the LP or not).
- Regarding LP D, when considering if the activity constitutes pre-hedging or live inventory management, it is necessary to look at how the LP uses the information inherent in the RFQ and whether its trading activity prior to responding to the RFQ is informed by the request. As LP D is confident that the client wishes to buy, its activity appears to be in direct response to the RFQ and hence should be subject to pre-hedging principles.
- This is the case even though LP D does not have certainty as to the direction the client wishes to trade. Pre-hedging occurs where a LP does not have an irrevocable instruction from a client

and therefore a degree of uncertainty as to whether the client will trade with the LP is typically a feature of pre-hedging activity. In the context of a 2-way request, an additional element of uncertainty is added in that the LP cannot be sure of the direction the client wishes to trade.

- If LP D is using the information from the RFQ to inform its trading activity, then this should be with a view to providing a better client outcome (as defined at Section I, paragraph 4.4).
- In respect of an individual trade it may be difficult to determine if trading activity ahead of the RFQ used the information value inherent in such RFQ and hence whether it constituted ongoing inventory management or pre-hedging. However, the intention may become more apparent when looking at the typical course of dealing. For example, if the trader or desk tends to adjust its trading patterns during live RFQs this may be indicative of the activity being pre-hedging as opposed to live inventory management and hence should be subject to pre-hedging principles.

# **Case study 1c** – risk management and conflicts of interest

## Scenario

LP X has a live 1-way RFQ in normal size in a liquid instrument in normal market conditions. While live on the RFQ a trader at LP X:

i. is actively managing risk from previous client trades in related financial instruments;

ii. is managing multiple other live RFQs where it has received a request and quoted a price but is yet to execute the transaction;

iii. the LP trader is putting on new risk pursuant to news that it wishes to react to.

In all instances there is a possible adverse price impact on the live RFQ trade.

## Key features of case study

- Live inventory management
- 1-way request
- Liquid instrument
- Normal market conditions
- Normal trade size

## Risk management considerations

### Role of a market maker

- As demonstrated by (i) and (ii) above, market makers operate in a dynamic environment where they actively engage with multiple client requests and manage their own inventory, especially for liquid instruments. Handling numerous client inquiries and correlated instruments alongside their own positions is a key aspect of their role. If every time a LP receives a live RFQ in flow products, all other correlated market-making activities were suspended, it could significantly affect the smooth and efficient functioning of these markets.
- When a LP is actively managing risk from previous client trades, it can impact the price they quote for subsequent transactions. This may include adverse market moves for a client as a result of the hedging of other RFQs. If the LP's positions align in the same direction as the client's request, it might lead to a less favourable price for the client. However, if the LP's positions are in the opposite direction, they can offset the risk, potentially resulting in a more favourable price for the client.
- (iii) is an example of live inventory management where market makers may re-position their books in response to public information (e.g. an earnings report, central bank interest rate move etc). If that public information is material, it may result in a movement in the price of the relevant instrument.
- Dealing desks are acting on an arm's length principal basis and carry financial costs and constraints as a result (i.e. RWAs, leverage, etc.).
- The above examples constitute risk management activities of a market maker and would not be deemed pre-hedging.

# **Case study 1d** – illiquid RFQ

## Scenario

A client sends a competitive RFQ through an electronic trading venue to 3 LPs in an illiquid instrument. The request is to buy in large size and the market is illiquid at the time of request. Lowest overall purchase price wins. LPs are aware of how many banks are in competition.

On receipt of the RFQ, LPs A, B, and C pre-hedge 33% of the RFQ including in correlated instruments in the futures market. LP A quotes best price and wins RFQ.

## Key features of case study

- Competitive RFQ
- 1-way request
- Electronic platform
- Illiquid instrument
- Large size
- Cumulative impact of pre-hedging

## Pre-hedging considerations

### Illiquid instrument

- LPs A, B and C may pre-hedge in this scenario to:
  - reduce the risk and market impact of the potential trade, which is large in size, and therefore expected to have a material impact on the market price of the bonds. Pre-hedging would allow the LPs to accumulate offsetting inventory over a longer time window; and/or
  - test underlying liquidity conditions where it is otherwise difficult to ascertain the fair value of the bond; and/or
  - determine if they can provide sufficient inventory to fulfil the trade.
- There may be an increased need to pre-hedge illiquid products to inform the level at which a LP can cover its risk, and to ensure sufficient inventory. Absent pre-hedging in this context, the LP may provide quotes that are wider, or decline to quote.
- For illiquid instruments, screen prices may be out of date given that such instruments do not trade frequently. This means that price movements are not necessarily the result of pre-hedging.
- The risk for the LP in pre-hedging RFQs for large sizes in illiquid instruments that have been requested from multiple LPs may be greater on the basis that if it does not win the client trade, unwinding the position is likely to be challenging requiring reasonable steps to avoid market disruption.
- In absence of pre-hedging, it is possible that a number of LPs may pass on the RFQ. The reliability and certainty of the quote may reduce with no pre-hedging.

### Price impact

- Due to the illiquidity of the market, the price impact of pre-hedging activity is likely to be more material than for more liquid products. The aggregated pre-hedge position of LPs A, B and C may have a greater adverse impact on the price that the client is quoted. The number of LPs who are asked to quote may therefore influence the degree of price slippage, impact the availability of inventory required to fulfil the request and give the impression of the market moving.

- Both LPs and clients can employ strategies to minimise the market impact of any pre-hedging activity.

### Trading protocol

- Any pre-hedging activity that a LP undertakes is likely to be influenced by the trading protocol adopted (e.g. if RFQ or order), whether the LP is in competition and, if so, the number of liquidity providers it has to compete with. The nature of the communications with the client may also vary depending on if the LP is in competition.

| Considerations for liquidity providers and clients (Case Study 1(a)-(d)) | |
|---|---|
| **Liquidity provider** | |
| **Existing guidance** | **Considerations** |
| **Ensure legitimate expectation to take on market risk** | ✓ Consider the likelihood of the client executing the trade with the LP. Factors informing this include:<br>– client relationship, historic dealings and method of trading (e.g. if client typically deals in full amount or clips)<br>– market conditions<br>– how competitively LP has priced the RFQ (e.g. if the LP has quoted wide, demonstrating a legitimate expectation to the win the trade will be more challenging)<br>– the number of LPs in competition (where this is visible to the LP)<br>✗ Using specific information inherent in the RFQ to inform the LP's own trading activity ahead of the client trade without a legitimate expectation to win such trade may constitute front running. |
| **Ensure any pre-hedging is reasonable relative to the size and nature of the anticipated transaction** | ✓ In addition to considering the probability of winning the trade (as above), where this gives information that is of incremental benefit, LPs to consider the cumulative impact if all RFQ recipients were to adopt the same pre-hedging strategy[14] (e.g. in 1(a), if all recipients pre-hedged the majority of the trade, greater than twice the volume of the client transaction will have gone through the market before the client trade is executed). This is an extrapolation solely based on the LP's own activity including their knowledge of the number of RFQ recipients (where disclosed) and should not involve communicating with other LPs.<br>✓ What is a reasonable amount to pre-hedge will be informed by prevailing market conditions and the length of the RFQ window |
| **Minimise impact of pre-hedging activity on the market** | ✓ If there is no liquidity at the relevant price point (e.g. in 1(d)), price discovery to ascertain the fair value may be reasonable. Use proxies where possible to inform fair value of an illiquid instrument (1(d)). |

[14] This is not intended to create an expectation of capping pre-hedging of competitive RFQs at $1/n$ (where $n$ is the number of LPs in competition) given the range of other factors that may inform the extent of pre-hedging by an LP but higher ratios of pre-hedging may require higher scrutiny of supervision to ensure they are consistent with pre-hedging principles.

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| **Ensure pre-hedging activity is designed to benefit the client** | ✓ Client benefit from pre-hedging may include (i) ensuring the effective provision of liquidity to fulfil RFQ; (ii) improving quality of execution for client; (iii) providing tighter price to client.<br>✓ When determining if the client is likely to benefit from the pre-hedging, the liquidity provider should consider both if the spread-to-mid will be tighter as a result of pre-hedging as well as the potential impact of pre-hedging on the execution price (i.e. is the pre-hedging likely to shift the mid-point).<br>✓ If the execution price for the client is likely to be adversely impacted by pre-hedging activity in a manner that is not offset by the reduced spread, the intent of the activity will need to be otherwise to the client's benefit (see Section I, para 4.4.).<br>✓ Any activity by the LP using the information value of the live RFQ should be designed to benefit the client. This should be the case irrespective of whether the RFQ is a one-way or two-way request (1(b)). A two-way request should be subject to pre-hedging principles where the LP uses the information inherent in the request to inform its trading activity.<br>✓ Skewing a price to reflect how a liquidity provider's book is axed is standard activity of a market maker and should not be considered pre-hedging.<br>✘ The LP has in place a blanket policy that all activity ahead of, or in response to, a 2-way RFQs cannot be considered pre-hedging and hence are not subject to pre-hedging principles (1(b)). |
| **Ensure the pre-hedging activity has been adequately disclosed to the client in advance of the transaction** | **Disclosures may:**<br>✓ include an explicit statement that pre-hedging may negatively impact the liquidity or price that the client receives.<br>✓ Where applicable, make clear that pre-hedging may occur in the minutes or seconds prior to the execution of the client trade.<br>✓ Highlight that the risk of pre-hedging having a negative market impact or client outcome may be greater during periods of low market liquidity.<br>**Disclosure frequency and timing**<br>✓ The client should be made aware in advance that pre-hedging may take place.<br>✓ Transaction specific communications are typically impracticable for activity conducted on electronic platforms.<br>✓ Periodic disclosures can include the detail outlined above. |
| **Client** | |
| **Communicate in a manner that is fair, clear and not misleading** | ✘ Avoid obfuscation through putting out separate RFQs with view to executing same, or substantively the same, transaction. |
| **Client awareness** | ✓ Consider the characteristics of a particular trade (including instrument liquidity and size), the trading protocol adopted, how |

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| | many LPs are put in competition and the potential impact of this on the strategies of liquidity providers.<br>✓ For example, the market footprint of any pre-hedging activity is likely to be greater in less liquid markets. Clients should consider this when considering how many LPs to ask for a quote (1(d)).<br>✓ If a client is concerned about the potential impact of any pre-hedging activity, it may request that the LP does not pre-hedge its transaction or otherwise provides two prices – one on the basis of pre-hedging, the other without. |

# **Case study 2** – pre-hedging and price discovery

## Scenario

A liquidity provider receives a bilateral RFQ (RFQ to 1) in an illiquid corporate bond that has not traded for two weeks. There is no reliable reference point to determine the fair value of the instrument. The LP places bids/offers in the market and interacts with an inter-dealer broker to help determine the level at which there is demand for the instrument to inform the RFQ response.

The liquidity provider uses the information obtained from the inter-dealer broker market to inform the price it quotes to the client. Having quoted, the LP begins to carry out pre-hedge trades.

## Key features of case study

- Bilateral RFQ
- Determining fair value of an illiquid instrument
- Highly illiquid instrument
- Normal market conditions
- Normal trade size

## Price discovery and pre-hedging considerations

### Determining fair value

The LP may seek to determine the fair value of the corporate bond and manage its anticipated risk through: (i) using the inter-dealer broker market (this may include talking to a broker and asking for an indication as to the market level); (ii) seeking to internalise flows and cross risk with corresponding client interest on the other side of the book; (iii) holding position and then running the associated risk.

- LPs will typically use the inter-dealer broker market in order to assess the fair value of illiquid instruments e.g. in high yield or emerging markets. However, other LPs participating in the relevant IDB will be able to see any activity and may position accordingly. The RFQ reveals information about the client's potential underlying interest to trade. If this is shared with multiple LPs it is likely to result in price movements.
- If a market is illiquid it is unlikely that the LP will be able to opt for option (ii). LPs will therefore typically need to hold the position and run the associated risk.

In addition to feedback from the IDB market, a LP's view of the price it is willing to trade may be informed by factors including: any inventory it holds, the value of proxy instruments such as bonds issued by the same or comparable issuers, correlated credit default swaps or indices, use of internal models taking into account factors such as the issuer's credit risk, interest rate sensitivity and liquidity risk, historically traded levels, any available external reference points, broader interest in the asset class etc.

### Concentrated LP market

If the instrument in question is typically traded by a limited number of LPs with particular specialisms any price discovery activity is likely to be quickly identified and potentially result in adverse price moves against the client.

| Considerations for liquidity providers and clients (Case Study 2) | |
|---|---|
| **Liquidity provider** | |
| **Existing guidance** | **Considerations** |
| **Ensure legitimate expectation to take on market risk** | ✘ Liquidity providers should not place offers or bids for an instrument on a trading platform with the intention of cancelling those offers or bids prior to them being filled. |
| **Ensure any pre-hedging is reasonable relative to the size and nature of the anticipated transaction** | ✓ Liquidity providers should consider the nature and price impact of any price discovery activity. |
| **Minimise impact of pre-hedging activity on the market** | ✓ There is a high likelihood that any activity, including merely enquiring about an illiquid instrument, will have a market impact. LPs should adopt strategies to minimise this impact.<br>✓ If the LP believes a screen price is out of date this, accompanied with a rationale for holding such view, may be communicated to the client. This helps explain why the LP is pricing away from the screen price and hence may reflect a realignment to fair value as opposed to a divergence from it. |
| **Ensure pre-hedging activity is designed to benefit the client** | ✓ LP may engage in price discovery activity with a view to understanding where to price and to increase their level of confidence of where the market really is and the capacity to risk transfer at that level.<br>✓ Pre-hedging in illiquid instruments may have a price impact. However, client benefits of this activity may include (i) facilitating the anticipated client transaction; (ii) ensuring the effective provision of liquidity; and/or (iii) improving the quality of execution. |
| **Client** | |
| **Client awareness** | ✓ An enquiry to one (as opposed to multiple) LP will reduce information leakage – as fewer market participants are privy to the information inherent in the request - and may lessen the impact of both any price discovery activity as well as any subsequent pre-hedging. |

# **Case study 3** – fixed income ETFs

## Scenario

A client wishes to buy units in a EUR Corporate Bond ETF which is tracking an EU investment grade floating rate bond index. The trade is 2 times average-daily volume in the ETF. The client sends a one-way RFQ to 10 ETF liquidity providers who are aware they are in competition. Lowest overall purchase price wins. The ETF LPs have 3 seconds to respond to the RFQ. 8 ETF LPs respond having not sought to manage any anticipated risk in advance. 2 ETF LPs pre-hedge before responding to the RFQ by buying a correlated index. There is observable movement on the ETF exchange price. The first ETF LP to pre-hedge quotes the best price and wins the RFQ.

## Key features of case study

- Competitive RFQ
- 1-way request
- Illiquid underlying instruments
- Fixed income ETF
- Normal market conditions
- Large trade size

### Market dynamics

- Create/redeem mechanism provides access to underlying market and ability to increase/decrease the number of shares in existence.
- OTC RFQs are typically priced on risk as immediate risk transfer with quoted bid or offer or ETF NAV (which is a forward fixing/benchmark) plus a spread. The majority of trades in fixed income ETFs are executed on risk, with the remainder priced as NAV plus a spread.

### UK/EU Market Structure:

- Limited exchange volume (>90% traded OTC) and low liquidity on exchange.
- Most clients currently trade ETFs from their equity execution desks (including for credit and rates ETFs).
- The underlying corporate bonds are not frequently traded, less than sovereign bond ETFs and much less than equities.
- The exchange prices are set by ETF market makers for the ETF issuer. They are not always a reflection of buy and sell flow which largely occurs OTC or via RFQ on multilateral trading venues. Exchange market makers can be included on OTC RFQs, and during this time often adjust their exchange quotes during the RFQ duration.
- ETFs have more real time transparency compared to other OTC corporate bond products.

### Competitive RFQ pricing and pre-hedging considerations:

**From a liquidity provider perspective:**

- Liquidity providers look at the price of the ETF on exchange, the prices of underlying corporate bonds as well as related hedging instruments (such as CDS indices or equity futures) when pricing the OTC RFQ.

- The more liquidity providers included in the RFQ, the higher the potential information leakage on the ETF order (given that more market participants are privy to the transaction information). If one liquidity provider pre-hedges during the duration of the RFQ this can cause price movement on the exchange ETF price and/or the underlying bonds.
- Pre-hedging may lead to one liquidity provider providing a better price (typically the first LP to pre-hedge), however the execution price for the client could be worse as the price has moved compared to where it first started (as other liquidity providers hedging costs have increased). It is difficult to monitor which liquidity providers are pre-hedging and if any market moves are the result of pre-hedging or other market activity or events.
- Where one liquidity provider pre-hedges and another liquidity provider who has not pre-hedged wins the trade then the latter may be disadvantaged if the market has already moved and hedging costs in the market are more expensive. This dynamic can lead to liquidity providers widening their quotes in future RFQs to compensate for hedging costs because their expectation is that they will be in competition with some liquidity providers who will pre-hedge. This may also result in some LPs choosing not to deal.
- Limited time to execute an RFQ means that pre-hedging is often not feasible for corporate bond ETFs, given the number of underlying bonds and liquidity in these instruments.

**From client perspective:**

- The RFQ price will have implicit transaction costs for the client – in addition to the bid/offer spread this will include the 'arrival cost' (difference between the market price at time of RFQ submission and the execution price).
- Two-way RFQs can reduce information leakage. However, liquidity providers may be able to determine the side of a 2-way RFQ, in part due to the size of the European market and the limited number of market makers that have significant market share. In addition, two-way requests may result in wider quotes or fewer responses.

| Considerations for liquidity providers and clients (Case Study 3) | |
|---|---|
| **Liquidity provider** | |
| **Existing guidance** | **Considerations** |
| **Minimise impact of pre-hedging activity on the market** | ✓ For corporate bond ETFs, there is limited ETF liquidity on exchange and limited liquidity in the corporate bond underliers, so it is difficult to minimise impact of pre-hedging activity in the credit market.<br>✓ Price movement on the exchange ETF price, the ETF underlying bonds, and CDS indices can affect the price the liquidity providers use to price the OTC RFQ ETF and therefore adversely impact the price the client receives. |
| **Ensure pre-hedging activity is designed to benefit the client** | ✓ Difficult to demonstrate improvements to client pricing by pre-hedging competitive RFQs, either in the ETF itself, the underlying instruments or correlated indices, in both a credit and equity ETF context.<br>✓ If client pricing is unlikely to be improved and other client benefits are not anticipated (e.g. pre-hedging is not necessary to facilitate the client trade, ensure the effective provision of |

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| | liquidity or otherwise improve the execution quality) then pre-hedging should not be undertaken. |
| **Client** | |
| **Client awareness** | ✓ Investors can narrow broker selection (from 10 LPs) to reduce information leakage.<br>✓ Investors may ask for 2-way RFQs to limit scope of LPs to pre-hedge.<br>✓ Investors may explicitly state that LPs do not pre-hedge the transaction. |

# **Case study 4** – new issuance swap

## Scenario

A client seeks to hedge its interest rate risk associated with a €1.5 billion 10-year debt issuance by entering into an interest rate swap with a bank counterparty. To obtain the lowest pre-agreed spread from mid (not taking into account the yield received by the investor), the issuer requests four joint lead managers (JLMs) involved in the debt issuance to provide quotes on the interest rate risk. The JLMs are aware that they are in competition.

Prior to providing a quote, JLMs A and B conduct a limited amount of pre-hedging in correlated financial instruments[15]. All JLMs respond to the RFQ. JLM A quotes through-mid and secures the mandate from the client at 1pm to execute the whole amount. JLM A and the client agree the mid-swap level ('MS') and broker screen off which the transaction will be subsequently priced.

Immediately after being awarded the mandate, JLM A continues pre-hedging to manage its risk exposure effectively[16]. This pre-hedging builds leading up to, and during, the pricing call scheduled for 2 pm. During the pricing call, the final price of the bond is set, and the price of the swap is determined based on the previously agreed-upon MS shown on the broker screen. The pre-hedging impacts the MS in an adverse way for investors buying into the deal.

## Key features of case study

- New issuance
- Client committed to the transaction / no practical alternative but to execute with counterparty
- Point at which pre-hedging commences and extent of pre-hedging prior to and during the pricing call
- Price impact of pre-hedging on MS and investors
- Balancing the interests of issuers and investors
- Large trade size

## Pre-hedging considerations

### Explanation

The issuer enters into the interest rate swap to change their future interest rate liabilities from those contracted in the debt issuance (e.g., from fixed to floating). Such swaps are typically entered into at, or close to, the time of pricing of the new issuance. The successful JLM hedges the risk of the swap by entering other derivative trades or other correlated instruments (e.g. government futures) in the market. Given the size of the trade, pre-hedging can reduce trading costs by reducing the market volatility of transacting the whole risk management trade(s) at the point of pricing. If the issuer client does not allow for pre-hedging, this may result in the JLM quoting a different price.

Typically, before being mandated the JLMs are aware of the clients' direction and total size, however, they do not know what proportion of the deal, if any, that they are going to win. Market participants will not have complete knowledge of all the market activity that will occur in and around the pricing window, and the corresponding effect that this could have on observable prices.

[15] If the client has a policy not to allow for pre-hedging, JLMs may show a different price.

[16] We refer to this being 'pre-hedging' as technically the award of the mandate does not constitute an irrevocable instruction (even if it is unusual for a client to revoke following the award of the mandate). Provisions in FMSB's 'Risk Management Transactions for New Issuance Standard' should be applied where relevant.

Once the swap has been mandated – and as the pricing call approaches - the client is unlikely to change the participants, or terms, of the transaction.

### Rationale for pre-hedging

- Testing the market allows a JLM to build an accurate and timely view of the pricing and depth of the market.
- Seeking to minimise hedging costs can result in tighter pricing of the swap for the client.
- Pre-hedging can help reduce the impact of market volatility and ensure a smoother pricing call.
- JLM A quoting through-mid may incentivise it to more actively pre-hedge.

### Impact of pre-hedging

- Pre-hedging between the time of the RFQ and when the interest rate swap mandate is awarded is usually limited and is not of material concern to issuers. The JLMs are motivated to offer the best possible pricing to the client in order to win the additional swap mandate and new issuances are typically highly competitive.
- Pre-hedging typically increases significantly once the issuer awards the interest rate swap, up to and on the pricing call. This may impact the mid-price of the swap to which the pre-agreed spread is added. The impact of any movements in the reference price because of pre-hedging are likely to be most pertinent to investors in the deal whose exposure is unhedged.
- Impacts of pre-hedging are likely to be magnified in less liquid markets.

| Considerations for JLMs and clients | |
|---|---|
| **JLM** | |
| **Existing guidance** | **Considerations** |
| **Clearly communicate the potential impact of any pre-hedging activity on either the swap price or the new issuance** | ✓ JLM and client to agree as many variables as possible prior to pricing.<br>✓ Inform the issuer client in advance of the proposed execution strategy as well as the timing and potential impact of any pre-hedging activity on the broker screen price off which MS will be determined (whether it is necessary to make such disclosure on a trade-by-trade or other basis will depend on the sophistication of the issuer client).<br>✓ Ensure the issuer has adequate information to determine if it wishes to proceed with the bond issuance and swap prior to execution. This is particularly relevant in a new issuance context as the client is likely to have limited practical alternatives but to execute with the selected JLM.<br>✓ Communications tailored to the sophistication of the client and their level of familiarity with transactions of this nature. |
| **Minimise impact of pre-hedging activity on the market** | ✓ Impact of pre-hedging will depend on the liquidity of the asset.<br>✓ JLMs hedge their risk using multiple smaller trades and a broad variety of instruments to minimise market impact. |

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| | ✓ JLMs consider matching trades with other clients, which will minimize market impact. |
| **Ensure pre-hedging activity is designed to benefit the client and not executed in a manner that is meant to disadvantage the client** | ✓ Pre-hedging activity has the potential to influence the broker screen price off which the MS is calculated which ultimately could adversely impact investors in the deal.<br>✗ Pre-hedging, whether prior to, or during the pricing call, should be solely aimed at risk mitigation and never performed for the purpose of influencing or manipulating the MS reference rate. |