

Global Foreign Exchange Committee: Commentary on Principle 11 and the role of pre-hedging in today's FX landscape¹

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¹ Terms used in this paper should be read according to their commonly accepted meaning as terms of market practice in the FX market, and no specific legal or regulatory meaning should be imputed or ascribed to them.

Commentary on Principle 11 and the role of pre-hedging in today's FX landscape

1. Introduction

Pre-hedging is one of many risk management tools used in principal-based, over-the-counter (OTC) markets, including foreign exchange (FX), to facilitate effective market-functioning across a range of products. It assists in the provision of point-in-time risk transfer by liquidity providers to liquidity consumers in a non-centralized OTC marketplace, where there is no guarantee of price continuity or liquidity at a specific price, by helping to reduce the risk and market impact of trades that are expected to significantly impact market prices. In utilizing pre-hedging, liquidity providers are expected to behave with integrity both in executing their client activities and in supporting the functioning of the FX market. While the intent of any liquidity provider conducting pre-hedging should be to benefit the liquidity consumer in executing an anticipated order, there is no guarantee that it will always result in a trade, or a trade at a price that is beneficial to the liquidity consumer. Pre-hedging done with no intent to benefit the liquidity consumer, or market functioning, is not in line with the FX Global Code (Code) and may constitute illegal front-running, depending on the laws of the relevant jurisdictions.

Order handling in a principal-based market has potential inherent conflicts of interests, which the liquidity provider must carefully manage.² This potential— together with the lack of transparency and historical examples of the inappropriate use of pre-hedging by some liquidity providers, including through misleading communication—has at times raised concerns about the benefits of pre-hedging to liquidity consumers and the FX market as a whole. The GFXC's 2019 survey results³ indicated the need for further guidance on Principle 11 and pre-hedging. This paper has been written by the GFXC in response to that need specifically, to help provide further clarity on the appropriate use of pre-hedging in today's FX landscape, including (i) how it is defined, (ii) when it could be used, and (iii) the potential impact that it could have on the prices quoted to the liquidity consumer.

This report is not part of the FX Global Code. Instead, it provides guidance on Principle 11 and discusses controls and disclosures that could help align pre-hedging activity with the Code. It is acknowledged that the topic is complex in nature and that a wide spectrum of opinion exists on specific aspects of this practice, accordingly this paper is principles-focused. The paper is intended to be read alongside the Code.

Key terms

“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.”

² Please see Principle 3 in the Code.

³ https://www.globalfxc.org/docs/gfxc_survey_results_Jan20.pdf

In general, the scope of this paper and Principle 11 covers anticipated Client⁴ orders that are large relative to the available liquidity in the market at the time of the order and that could have a significant market impact and thus pre-hedging should be more of an exception than the norm. Principle 11 is not meant to apply to situations where the liquidity provider is managing their ongoing inventory risk by anticipating general order flow, including the risk management of reasonably expected near term demand (generally known as RENTD in certain jurisdictions).

An *anticipated* order can be best illustrated through a voice one-way request for quote (RFQ), in which a liquidity consumer requests one or more liquidity providers to provide a *firm* quote⁵ on a specified transaction amount. The act of requesting the quote does not mean that the liquidity consumer will accept or trade on the quote. The decision whether to trade and accept the quote lies with the liquidity consumer. However, the liquidity provider *anticipates in good faith* (that is, has reasonable expectations) that the liquidity consumer will accept the quote in which case it will become a *confirmed* transaction. At this point the market risk of the transaction is transferred from the liquidity consumer to the liquidity provider.

Pre-hedging, in the context of a one-way RFQ, comprises any associated trading activity that takes place between the time that the liquidity consumer requests the firm quote and before the liquidity consumer accepts the quote (creating a confirmed transaction), or rejects the quote. As provided in the Code, pre-hedging should be done with the intent to benefit the liquidity consumer and facilitate the trade. Any trading activity after the acceptance of the firm quote by the liquidity consumer is deemed hedging. At this point the liquidity provider “owns” the market risk and the associated profit and loss on the trade. See figure 1 for a breakdown of the RFQ workflow.

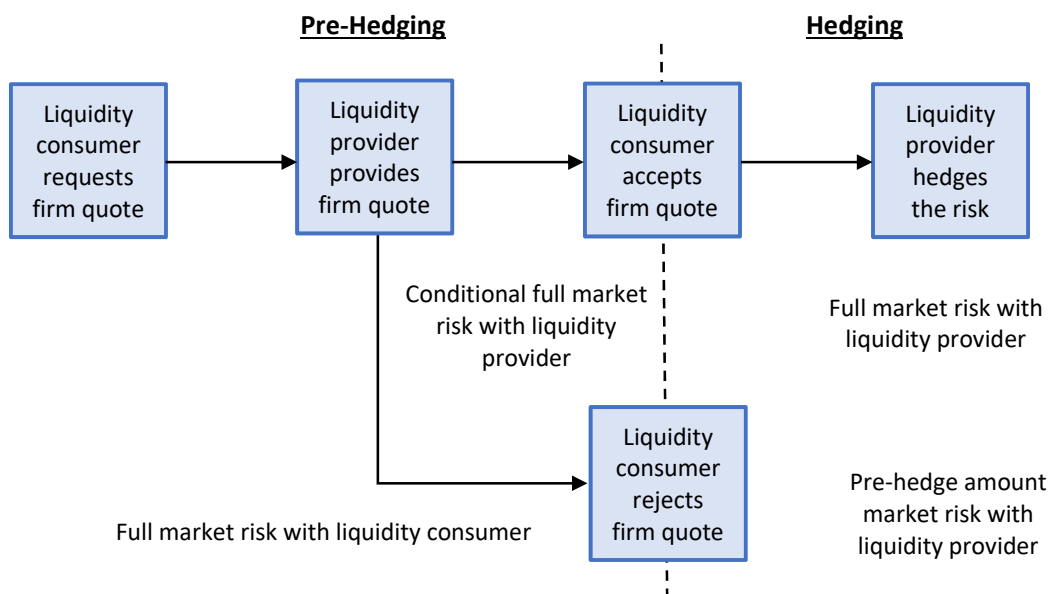
Other frequently used order types, including stop-loss and limit orders, are not *anticipated* orders in the above sense since the order has already been given to the liquidity provider. However, their execution is contingent on some specific pricing trigger being hit, and therefore the execution is anticipated but not guaranteed unless the trigger is hit. These types of orders will be covered in more detail in section 7.

Other types of requests for a price may also have an anticipatory element of an upcoming trade or order, and the granular discussion of the applicability of pre-hedging or Principle 11 in their case is beyond the remit of this paper. However, if in doubt as to whether Principle 11 applies in any such requests, best practise would suggest an open discussion between the liquidity consumer and provider to align expectations.

⁴ In this paper we use the term liquidity consumer to mean the market participant requesting the quote and liquidity provider to mean the market participant providing the quote.

⁵ A firm quote refers to a quote where the decision to transact lies with the recipient (liquidity consumer). The quote may be subject to conditions, but these are known to and can be evaluated independently by the recipient.

Figure 1. Voice RFQ workflow



2. When is pre-hedging potentially applicable

“In assessing whether Pre-Hedging is being undertaken in accordance with the principles above, a Market Participant should consider prevailing market conditions (such as liquidity) and the size and nature of the anticipated transaction.”

Since pre-hedging is a risk management tool to facilitate the execution of client trades that could have a significant market impact, liquidity providers should carefully establish guidelines and controls for when pre-hedging is appropriate based on their risk appetite and underlying liquidity conditions. See section 9 for controls and disclosures around pre-hedging and appendix 1 for a detailed discussion of the management of market risks associated with principal-based trading.

Market participants should strive to have clearly aligned expectations for the execution of, especially larger, FX orders, whether pre-hedging is applicable or not. Transparency about execution or pre-hedging practices also allows a liquidity consumer to determine whether they should potentially adjust their order or method of execution, or perhaps even trade with a different liquidity provider.

Larger FX orders also have heightened conduct and market risk, and therefore should be handled with particular care and attention, and within the overall guidance of the Code, in order to minimize their market impact and achieve desired outcomes for the client. This includes setting out clear expectations for their execution, including the guidelines governing any pre-hedging when applicable.⁶

The practice of asking for a firm quote through an RFQ inherently reveals information about the liquidity consumer’s potential underlying interest to trade. Liquidity providers should consider all the relevant principles in the Code that may govern the handling of this information, including Principles 1-3 (Ethics),

⁶ The FICC Markets Standards Board has published standards for the execution of large trades in FICC markets.

Principle 7 (Effective Policies & Procedures), and Principle 19 (Handling Confidential Information). It is also important that market participants recognize the sensitivity of this information in the context of the market they trade in. For example, asking for a firm bid for 100 million USD/JPY has substantially different informational value from asking for a bid for 100 million USD/ZAR.

The amount of any pre-hedging should be commensurate with the potential risk assumed by the liquidity provider from the anticipated order and the prevailing liquidity and market conditions for the specific currency pair. Factors that could be potentially considered in deciding whether pre-hedging could be used to manage the risk of an anticipated order, include whether the potentially transaction is:

1. Large relative to the liquidity provider's risk limits.
2. Large relative to normally available market liquidity for the particular FX pairing.
3. Requested during a relatively illiquid time of day, or when general market conditions are otherwise illiquid.

In general, when conditions potentially warrant pre-hedging, liquidity providers should strive to communicate the potential implication of the order on market liquidity and price. In addition, and depending on the client relationship and the perceived urgency of the trade, liquidity providers should also strive to outline alternative options for executing the trade to limit its market impact. The frequency and extent of any such discussions may also depend on the sophistication of the liquidity consumer and the perceived size of the market impact of the trade.

According to the Code, liquidity providers should only pre-hedge anticipated orders "when acting as a Principal, and should do so fairly and with transparency." When acting as Agent, including where the liquidity provider is acting as Principal without taking market risk, there is no need to pre-hedge because the liquidity consumer is carrying the market risk until the trade is executed. Liquidity providers should also not pre-hedge if the liquidity consumer has specifically requested that the RFQ not be pre-hedged.

3. The role of pre-hedging in managing market risk

"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."

Pre-hedging is the action undertaken by liquidity providers in the market to help facilitate transactions that could significantly impact market pricing by reducing the potential market risks arising from these types of anticipated flows. Three key elements in pre-hedging an anticipated order potentially contribute to this risk-reduction:

1. Market risk exposure is reduced at the time of the flow (*i.e.*, risk transfer) by allowing a liquidity provider to accumulate offsetting inventory in the trading book based on the information provided by the liquidity consumer.

2. Liquidity provider's hedging cost is potentially lowered by lengthening the window over which they can hedge the new exposure by permitting transactions before and after the risk transfer takes place.
3. Liquidity providers can confirm underlying liquidity conditions by testing market liquidity in the absence of being able to validate it through other sources, including systems and historical data.⁷

These three factors potentially help to reduce a liquidity provider's market risk exposure and associated hedging costs. However, pre-hedging itself may create risk for a liquidity provider if the *anticipated* order has been pre-hedged, but does not become a *confirmed* transaction. In that case, a liquidity provider will own any consequent profit or loss on the pre-hedged position.

4. Assessing the potential benefit provided by pre-hedging

"While undertaking Pre-Hedging, a Market Participant may continue to conduct ongoing business, including risk management, market making, and execution of other Client orders. 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 considers the overall exposure of the Market Participant."

The intent of any pre-hedging by the liquidity provider should always be to benefit the liquidity consumer and help facilitate the transaction. Any pre-hedging should be done in a manner so that it is not meant to disadvantage the client nor cause market disruption.

Intent is a difficult concept to demonstrate. It exists in the mind of a liquidity provider. Similarly, the benefits arising from pre-hedging can be very difficult to show, either ex-ante or ex-post, given the complexity of managing even a large order in the context of an active market making operation. It is also clear that pre-hedging may not always lead to a better outcome for the liquidity consumer.

Many market participants contend that, *in the aggregate*, the reduction in market risk through pre-hedging facilitates more effective market functioning and provides a benefit to the price shown to the liquidity consumer. For specific transactions, pre-hedging may reduce the adverse effects that large orders can have on the market price. Pre-hedging may also allow liquidity providers to price or execute larger orders than they would otherwise be able, thus promoting larger point-in-time risk transfer to those liquidity consumers that demand it. In general, liquidity providers also contend that the spreads they quote to liquidity consumers would be wider for larger transactions without the ability to manage their trading risk through pre-hedging. However, some liquidity consumers question the benefit they receive to their execution from pre-hedging and whether spreads would be wider without pre-hedging.

To assess the potential benefits from pre-hedging see guidance in Principle 9 and 36 with respect to regularly evaluating the execution that market participants receive.

⁷ While the observed top of book bid-ask spread is usually tight, it may not necessarily reflect where liquidity is for larger trade sizes.

5. Potential impacts from pre-hedging

Despite an intent by the liquidity provider to provide a benefit to the liquidity consumer and to limit the market impact of a trade, pre-hedging may result in an adverse outcome for the liquidity consumer depending on the circumstances. Consider, for example, the case where the liquidity consumer is requesting an RFQ for a large trade during an illiquid period of the day. Pre-hedging could drive prices away from current market levels, even if it is only for a small amount of the potential order, since market prices might not necessarily reflect actual liquidity.

An adverse outcome could also result if the liquidity consumer asks for an RFQ for a large amount from multiple liquidity providers at the same time. If each liquidity provider were to pre-hedge part of the transaction, the cumulative effect of multiple pre-hedging transactions could move the market price against the liquidity consumer. Asking for a large number of quotes also increases the risk of information leakage and may not lead to an optimal outcome for the liquidity consumer.

Consistent with the guidance articulated in section 5, liquidity consumers should understand how their orders are handled so as to make informed choices about which liquidity provider they choose to transact with. In keeping with that, liquidity consumers who are concerned about the potential market impact from pre-hedging could potentially consider one of the execution options listed below. The range of options available to a particular liquidity consumer will depend on several factors, including whether they are executing electronically or via voice, any internal or external constraints they have on their execution and the business model of the liquidity provider from which they are requesting a price.^{8,9} Some liquidity providers may also not provide the full range of execution options listed below.

1. Execute the required FX flow electronically using an execution algorithm that breaks down the large order into smaller executable orders.
2. Request that the order be executed through an agency model with the resulting price based on the actual executed market prices plus an agreed fee.
3. Request a two-way RFQ as this does not directly reveal the direction of the potential trade. However, the liquidity provider could try to potentially guess this direction based on prior market flows or the specific flow history of the liquidity consumer. This type of RFQ request may result in a slightly wider bid-ask spread for the liquidity consumer compared to a one-way RFQ.
4. Specifically ask the liquidity provider for a price without any pre-hedging, irrespective of any general disclosures with respect to pre-hedging.
5. Clearly indicate that the RFQ is exclusive, rather than in competition as – all other things being equal – that will tend to reduce (without necessarily eliminating) the need for the liquidity provider to have to pre-hedge.

⁸ In some cases, depending on internal constraints and the currency pair in question, none of these options may be available to the liquidity consumer.

⁹ In the first two options the liquidity consumer takes on the execution risk.

6. How do these issues apply to other order types

The conveyance of a firm order usually represents the delegation of the execution and market risk from a liquidity consumer to a liquidity provider, who is often required to determine whether and when the trade is to be filled. This can give rise to potential for dispute, and therefore all parties must be clear on the terms of the delegation and determination for the trade in order to have aligned expectations for the execution.

Certain types of orders given by a liquidity consumer to a liquidity provider (*e.g.*, fixing, stop-loss and limit orders) could be considered *confirmed* and no longer *anticipated*. In these cases, a liquidity provider has been given a specific firm order to execute, holding the associated execution risk, and therefore pre-hedging and Principle 11 should not potentially apply.¹⁰ However, for some of these order types (for instance limit or stop-loss orders) the execution is subject to some pre-determined trigger, which means that there is some element of “anticipation” to the trade. Some of these order types are also conditional on determinations made by a liquidity provider, instead of a liquidity consumer as in the case of a firm quote, in which the liquidity consumer determines whether to trade or not. Despite these differences, it is important to recognize and cover the potential conflicts arising from any transactions, whether deemed hedging or pre-hedging, conducted by a liquidity provider before the trigger is hit for stop-loss and limit orders.¹¹

7.1 Stop-loss orders

Determining whether any related trading activity is appropriate before a stop-loss trigger is hit is dependent on the parameters for executing the order, which should be clearly communicated and agreed to between the liquidity consumer and provider in order to align expectations for its execution. There are several important parameters that could be potentially considered and agreed to before a stop-loss order is placed, including (i) the time over which the stop is active, (ii) the notional size, (iii) the price level that triggers the stop-loss order, (iv) how the trigger price is determined (*e.g.*, bid, ask, mid, traded), and (v) the execution method once the trigger is hit.¹²

Liquidity consumers should understand the choices available to them to execute their stop-loss orders, including what these mean for the fill price and how they affect any potential transactions associated with the stop-loss. If the liquidity consumer’s expectation is for the stop to be executed (filled) at or close to the trigger price, then liquidity providers may need to start transacting *before* the pre-determined trigger level is hit in order to endeavour to fulfill the order at the expected price. This is especially true if the stop is active during a relatively illiquid period of the day during which the execution risk for the liquidity provider is high. However, it is important for market participants to recognize that any transactions conducted before the pre-determined trigger could potentially trigger the stop-loss order, even if the intent was not to do so.

¹⁰ Even though orders may be considered firm they can be cancelled by the liquidity consumer prior to execution; the exact timelines for this are dependent on the type of order and the terms agreed with the liquidity provider.

¹¹ Some market participants contend that the any transactions associated with orders that are considered firm, even if they are contingent on hitting a trigger, are deemed hedging since they assert that the execution risk lies with the liquidity provider. Whether these transactions can be considered hedging, or pre-hedging depends on the specific parameters of the order which help to determine the point of risk transfer.

¹² Please see Principle 10 in the Code.

In the case where the execution of the stop-loss order is only begun once the pre-determined trigger is hit, and the stop-loss fill price is determined by the underlying liquidity at the time, there should be no need to conduct any related transactions before the trigger is hit as the execution risk lies with the liquidity consumer. This is equivalent to the stop-loss order becoming an “at the market” order once the trigger is hit. This type of stop-loss order substantially reduces the conflict faced by the liquidity provider.

In order to monitor the perceived conflict that potentially arises from trading at or around stop-loss orders, liquidity providers should establish clear guidelines and surveillance around the execution of stop-loss orders to independently monitor for any abuse. Liquidity consumers need to also be aware of the potential impacts that their stop-loss orders could have on liquidity providers.

7.2 Limit orders

A limit order is also contingent on a specific price level trigger being hit. As with a stop-loss order, it is important that both parties agree to the terms of the execution. In contrast to a stop-loss order, in which the related trading activity before the pre-determined trigger is hit is potentially adding pressure on prices, in a limit order any transactions before the trigger are going *against* the price trend. Therefore, any transactions relating to the limit order that are conducted by a liquidity provider without the price limit trigger being hit could benefit a liquidity provider (*i.e.*, selling near the top or buying near the bottom). For limit orders that do not allow for any liquidity provider discretion to execute, any transactions conducted ahead of the trigger raise more serious conflict of interest concerns. Depending on the jurisdiction, these conflicts may also present concerns about unlawful front-running. Given this increased concern with limit orders, liquidity consumers and providers should be clearly aligned whether discretion will or will not be applied, desired, or expected. Limit orders should also receive heightened surveillance.

7.3 Fixing orders

In contrast with stop-loss and limit orders, which have an element of anticipation of execution, fixing orders are *firm* orders with an agreed time when they are executed or filled. The only unknown element is the price, which is determined through an agreed-to calculation methodology (usually in a specific time window, *e.g.*, WMR London close). Since a liquidity provider clearly has the execution risk in these types of orders, any transactions done by a liquidity provider—whether before, within, or after the actual calculation window—are deemed hedging, *not* pre-hedging. Accordingly, Principle 11 is not directly applicable to confirmed fixing orders. However, any transactions relating to a fixing order should nonetheless be consistent with the Code, including Principal 10 which outlines acceptable practices for transacting a fixing order, which includes “not intentionally influence the benchmark fixing rate to benefit from the fixing, whether directly or in respect of any Client-related flows at the underlying fixing”, or “transacting an order over time before, during, or after its fixing calculation window so long as not to intentionally negatively impact the market price and outcome to the Client.” The execution of fixing orders should also be consistent with the Financial Stability Board’s Foreign Exchange Benchmark Report Recommendations.¹³

¹³ See the Financial Stability Board Final Report on Foreign Exchange Benchmarks, September 30, 2014.

The OTC FX market benefits from a diversity of trading styles and order types, which can be bespoke between market participants. It is outside the scope of this paper to explore such a wide range of order types, beyond the three standard types covered above. It is important, however, for market participants to fully understand the complexities of all the order types that they use, including (i) the potential conflict of interest arising for a liquidity provider, (ii) the Principles in the Code that apply to their execution, including Principles 1-3 (Ethics), and (iii) the potential pricing impact of any associated pre-hedging or hedging activity. Liquidity providers should also have appropriate controls to monitor the potential conflicts that could arise from the various order types they offer to their clients.

7. Consistency between Principle 11 and 17

It is important that the Code's execution principles apply consistently across both voice and electronic trading as many electronic execution workflows ultimately involve a voice trader to distribute prices, respond to price requests and manage market risk. Principle 11 focusses on pre-hedging anticipated order flow and is agnostic to the method of execution. It applies to both voice and electronic trading (including one-way RFQs). Principle 17 (Last Look) relates specifically to electronic trading and focusses on trading in the last look window.

The key difference between Principle 11 and Principle 17 is whether a liquidity consumer is specifically requesting a price (firm quote) from a liquidity provider, or has already received a price on which to trade. In the case of Principle 17, the liquidity consumer is sending a specific order requesting to trade on an *indicative* quote¹⁴ that has already been provided (streamed) by the liquidity provider, and as a result has provided confidential information with respect to the trade to the liquidity provider. Whereas, Principle 11 deals with the risk-management activity arising from the liquidity consumer *requesting* a *firm* quote – before a confirmed order (a request to trade is given). As such, Principle 11 does not apply to any trading protocol that is reliant on indicative pricing.

8. Controls and disclosure around pre-hedging

In order to engage in pre-hedging, liquidity providers should have in place procedures for handling client orders fairly and in accordance with the Code, including all the applicable Principles. These procedures are part of an appropriate control and compliance framework, which will also include oversight for the accurate monitoring of a liquidity provider's pre-hedging activities to validate that they are consistent with the Code. Such a framework should include:

- Controls in place to monitor pre-hedging activity and manage resulting conflicts of interest (see guidelines in Principles 3 and 4)
- Controls in place to limit access to Confidential Information relating to anticipated order flow (see guidelines in Principle 19)
- Awareness and training of pre-hedging workflows and any applicable regulations, and when pre-hedging could be used (see guidelines in Principles 3, 24 and 25)

¹⁴ An indicative quote refers to a non-firm price streamed by a liquidity provider where the decision to trade lies with the liquidity provider.

- Monitoring of adherence to pertinent standards of behaviour (see guidelines in Principles 25 and 27)
- Pre-hedging related disclosure and client communication, including completion of the GFXC Disclosure Cover Sheet (See guidelines in Principles 9 and 11)
- Client complaint process to be able to review any perceived misalignment of expectations on specific execution outcomes (see guidelines in Principle 7 and 36)

Care should also be taken to minimize (and monitor) any material market impact from pre-hedging, defined with reference to the market level that was present immediately prior to any pre-hedging taking place.

Liquidity providers should communicate their pre-hedging practices to liquidity consumers in a manner that allows a liquidity consumer to fully understand and be aware of the potential impact on their execution.

Liquidity consumers should be aware of the risks associated with the transactions they request and undertake, and regularly evaluate the execution they receive. Liquidity consumers should also consider if there are any unintended consequences for their liquidity providers by virtue of the way in which they present their orders—for example, asking a large number of liquidity providers for a large RFQ at the same time, which may increase the likelihood of an adverse effect on price.

Appendix 1: Market risk associated with principal-based trading in FX

FX continues to function primarily as a principal-based OTC trading market, where the liquidity provider takes on market risk¹⁵ to facilitate a foreign exchange trade for a liquidity consumer.

Market risk refers to the potential change in the market value of a liquidity provider's trading book (positions) due to changes in market prices and is, by its nature, part of the risk inherent in all FX trading where capital is allocated to outright trading positions. By taking on this market risk, a liquidity provider takes on the point-in-time FX execution risk from a liquidity consumer at a specific price, which may or may not be predetermined at the time the order is given, depending on the type of order. This risk transfer is agnostic to the method of execution, and applies whether executing via electronic or voice means.

The nature and amount of market risk that a principal-based liquidity provider can take depends on the institution's business model, including its size and role in the FX market. The actual daily amount of market risk taken by a liquidity provider is determined by market conditions, including the liquidity and volatility in the underlying currency.¹⁶ This daily risk is closely monitored through the institution's risk management framework, which sets controls around acceptable risk, including specific trading limits, and defines how the risk is calculated. In general, this is done through a Value-at-Risk (VaR) approach. A liquidity provider's risk appetite (including risk limits) is driven by many factors, including market conditions, regulatory capital allocated to foreign exchange, and regional consideration.

Aggregate VaR risk limits are usually set at the business line level (*e.g.*, spot G10 FX). More granular risk limits can potentially be set, —for example, by specific currency pair, individual trader, or type of execution (*e.g.*, electronic versus voice execution). The structure of a risk framework and way that it is managed are specific to an institution. Aggregate VaR risk limits generally apply to the risk that the trader or desk, for example, can hold or carry overnight (*i.e.*, they relate to end-of-day positions). Intra-day risk limits complement end-of-day risk limit frameworks, and can potentially be higher to facilitate daily market making. To assist both trading and risk monitoring, aggregate VaR limits are generally converted to individual notional FX exposure limits based on the underlying volatility in each currency pair. Therefore, more liquid and less volatile currency pairs could potentially have higher notional limits. Notional limits can also respond to changes in the underlying volatility for a specific currency pair. For example, a rise in volatility could result in a reduction in a notional trading limit so that it continues to reflect the same amount of daily VaR. In addition to aggregate position limits, liquidity providers may also have daily loss limits, which, if triggered, could restrict the ability of a liquidity provider to take on further risk.

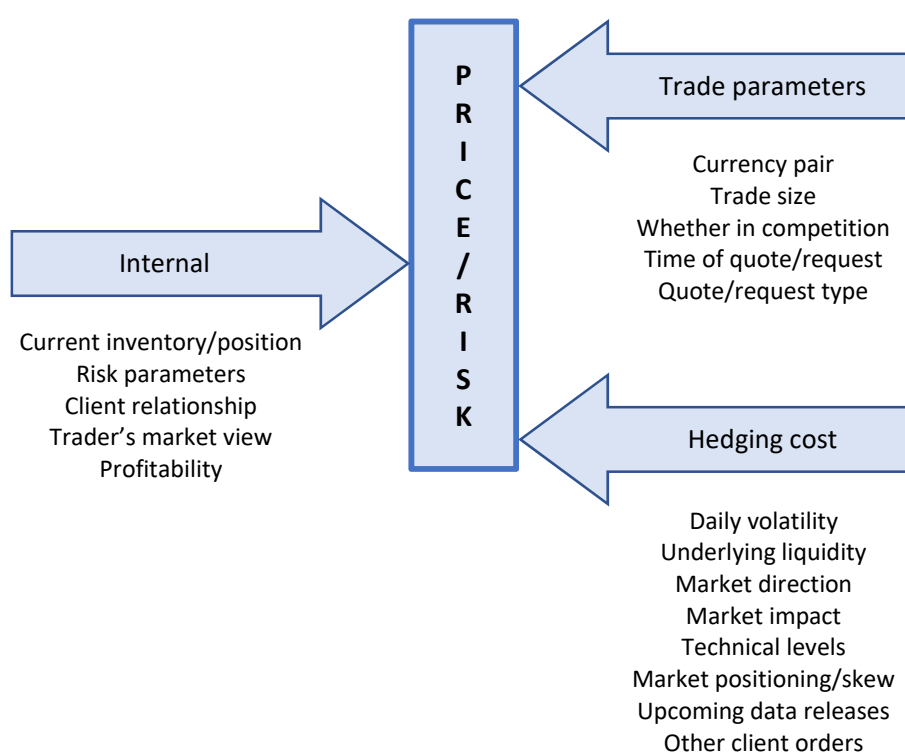
The use of various risk limits is closely monitored by individual traders and their managers as new trades are added into a trading book during the day. These limits are also independently monitored by an institution's risk and compliance functions to measure and monitor the activities of the FX trading business. VaR limits and their utilization, including breaches, are also monitored by the supervisors and regulators of financial institutions.

¹⁵ This section does not cover the other types of risk inherent in providing market liquidity, for example credit and settlement risk.

¹⁶ Not all liquidity providers may be active in making markets across all currencies, but they may still be willing to provide a firm quote to the liquidity consumer to facilitate client trades as part of their client service.

The role of a principal-based trader is to profitably manage, within their risk limits, the market risk in a trading book by taking into account current market conditions and other public information, as well as potential and anticipated future events. There are often a number of countervailing flows that occur over the course of a trading day that will create different positions in the trading book. These include new trades executed with liquidity consumers across various currency pairs, which can either reduce or increase risk in the trading book.¹⁷ In order to attract these new external flows, liquidity providers can adjust the pricing that they show to liquidity consumers. Some of the factors that could potentially influence the risk in the trading book, and therefore the liquidity provider’s pricing, are shown in Figure 2. The relative importance of these factors (and therefore the price shown) are subject to constant adjustment.

Figure 2. Potential factors that could impact the risk in the liquidity provider’s trading book



An important pricing consideration is the size of any potential new order and how it affects the existing trading book—*i.e.*, whether it increases or reduces the risk. In general, the larger the incremental market risk, the larger the spread that a liquidity provider might charge a liquidity consumer to compensate for the increased risk taken. Another important factor that liquidity providers could consider when determining their pricing is the expected cost of hedging the risk related to the order—*i.e.*, “the cost of laying off the incremental risk”. This cost is a function of the underlying liquidity in the specific currency pair relative to the size of the trade at the time of pricing. Liquidity is currency pair dependent and varies throughout the day. Hedging costs are generally higher during less liquid conditions, or when the trade size is large relative to the available liquidity. Available liquidity is

¹⁷ Flows can also be generated from other internal trading books, including FX options.

normally at its worst towards the end of the North American trading day or just prior to major international holidays —for example New Year’s Eve (December 31) —or in-front of key economic releases or other major news events.

The ability of a liquidity provider to net market risk against either existing inventory or natural client flow can reduce the unit hedging cost by lowering the potential market impact and avoiding potential information leakage from any pre-hedging activity.

Many of the factors affecting the price shown by a liquidity provider are institution- or situation-specific. There is therefore no easily defined or calculated “right price” for a trade, especially when a trade is large relative to available liquidity, liquidity conditions are poor, or underlying liquidity conditions are unknown.

Appendix 2: Illustrative trading scenarios

The table below contains a number of scenarios which are meant to illustrate whether the described activity could be deemed pre-hedging and whether the activity is consistent with the guidance in Principle 11. The comments are limited to issues relating to Principle 11, but market participants should also consider the other Principles that could apply, including with respect to Ethics, Execution and Information Sharing. The scenarios are highly stylised and are not intended as, nor should be understood or interpreted as, precise rules or prescriptive or comprehensive guidance. Moreover, the scenarios are not intended to provide safe harbour nor are they an exhaustive list of situations that can arise; in fact, it is expressly understood that facts and circumstances can and will vary.

Scenario	Classification			Comments
	Anticipated Order	Firm Order	Pre-hedging	
Modelling of asset markets by a liquidity provider indicates the potential for strong dollar demand at the upcoming month-end fix. As a result, the liquidity provider buys dollars in advance to position for this potential future client flow.	No	No	No	In this scenario, the liquidity provider expects large general month-end fixing flows, however no orders have been requested and no confidential information has been obtained. Therefore, the liquidity provider is entitled to position for this potential flow at their own risk. Such activity is part of routine trading, inventory management and market-making behaviour by the liquidity provider. It is not pre-hedging as defined in Principle 11.
Cable has bounced off a major support level multiple times over the past month. Given recent changes to BOE's communications the liquidity provider expects that cable will break-through the support level the next time the technical level is hit and therefore to meet and profit from potential future client flow the liquidity provider starts to build a short Cable position as the important technical level is approached.	No	No	No	In this scenario, the liquidity provider expects cable to break-through an important major technical level with potential client selling as a result, however no orders have been requested and no confidential information has been obtained. Therefore, the liquidity provider is entitled to position for this potential technical selling at its own risk. Such activity is part of routine trading, inventory management and market-making behaviour. It is not pre-hedging as defined in Principle 11.

GLOBAL FOREIGN EXCHANGE COMMITTEE

Scenario	Classification			Comments
	Anticipated Order	Firm Order	Pre-hedging	
Liquidity consumer asks for a firm bid price in EUR/MXN in large size. The liquidity provider has been running a long USD/MXN position expecting it to go higher, but decides to sell the position based solely on the knowledge of the price request before providing the EUR/MXN quote, with the intent to lock in the P&L on the existing USD/MXN position before the liquidity consumer's trade could negatively affect the USD/MXN market price.	Yes	No	No, since the activity described in this scenario is inconsistent with Principle 11.	In this scenario, the liquidity provider's intent is clearly to benefit their position and not the liquidity consumer's. Therefore the described activity is not in line with the Principles in the Code, including Principle 11, and may constitute illegal front-running, depending on the laws of the relevant jurisdiction.
Liquidity consumer gives a liquidity provider a firm order at 2pm to buy 4 billion EUR/USD at the London WMR 4pm fix.	No	Yes	No	The liquidity consumer and provider agree that the order is confirmed at 2pm, at which point the execution risk has been transferred to the liquidity provider. As a result, the liquidity provider can hedge the risk, subject to the applicable Principles in the Code. It is important that the expectations of execution, and any associated duties, are aligned and understood, including the potential price impact of the order, as well as the cut-off times for any changes that can be made to the order. The guidance in Principle 11 does not apply as the order is not <i>anticipated</i> and the associated trading activity with respect to the order is deemed hedging as the execution risk has been transferred to the liquidity provider.
Liquidity consumer gives a liquidity provider a stop-loss order to sell 500 million USD/JPY at 105.00, order is good-till-cancelled. The liquidity consumer indicates that they expect the execution to be filled close to the trigger level, should the trigger level trade. The liquidity provider communicates that they may need to enter the market ahead of the stop-loss level to endeavour to execute according to the instructions provided by the liquidity consumer.	No, but execution is subject to a trigger.	Yes	No, since the execution risk resides with the liquidity provider. Execution is subject to a trigger.	The order is confirmed and the management of the execution risk has been transferred to the liquidity provider. The liquidity provider can start to hedge the order at its own risk, subject to the applicable Principles of good practice in the Code. It is important that the expectations of execution, and any associated duties, are aligned and understood. For example, understanding the terms of the stop-loss trigger and determination; expectations of potential slippage; how execution is affected by volatility, such as flash events. The guidance in Principle 11 does not apply as the order is not <i>anticipated</i> and the associated trading activity with respect to the order is deemed hedging as the execution risk has been transferred to the liquidity provider.

GLOBAL FOREIGN EXCHANGE COMMITTEE

Scenario	Classification			Comments
	Anticipated Order	Firm Order	Pre-hedging	
A liquidity consumer gives a liquidity provider an overnight stop-loss order to sell 500 million USD/JPY at 105.00, order is good-till-cancelled. The liquidity consumer requests 'agency-style' execution, where determinants are non-discretionary.	No, but execution is subject to a trigger.	Yes	No	The order is confirmed and the market risk is retained by the liquidity consumer and therefore the liquidity provider should not conduct any trading activity prior to the agreed trigger being hit. The liquidity provider is carrying out the liquidity consumer's stop-loss instruction without discretion and without taking any market risk and therefore pre-hedging is inappropriate for this type of order.
A liquidity consumer asks a liquidity provider for a firm bid (one-way RFQ) for 5 billion EUR/USD.	Yes	No	Yes	In asking for a firm bid, the liquidity consumer is not confirming a transaction. Given the potential size of the transaction and its potential impact, the liquidity provider may choose to pre-hedge some of the potential transaction in anticipation of winning it, subject to the applicable Principles in the Code. However, it is important that the expectations for the trade are aligned and understood by both parties. The liquidity provider may consider proposing alternative execution options depending on their view of the potential impact of the trade. This scenario is consistent with the guidelines in Principle 11 and the pre-hedging of <i>anticipated</i> orders.
A liquidity consumer approaches a liquidity provider indicating that they would like to potentially buy 2 billion USD/ZAR, an amount that exceeds the liquidity provider's existing inventory position and risk tolerance. The request does not yet constitute a firm order or an RFQ. The liquidity provider makes it clear that in order to obtain the necessary volume, they would need to purchase the inventory in the market, over an extended period, and would be happy to discuss a clear methodology to determine the execution price.	Maybe	No	Whether pre-hedging applies depends on the execution approach agreed to between the participants to the trade.	Clear understanding and expectations of the transaction, between the participants, would be required in this scenario. An order of this type could be handled in a number of ways, including potentially asking the liquidity provider to act in an agency capacity. Participants should ensure the confidentiality of discussions in the case of such an order. Any eventual confirmed order can then be executed in accordance with the participants' expectations and strategy.