13 October 2020

Mr Christopher Kirkpatrick
Commodity Futures Trading Commission
115 21st Street NW
Three Lafayette Centre
Washington DC 20581

Dear Mr Kirkpatrick

Non-deliverable Options

Pursuant to CFTC regulation §39.5(b), LCH Limited ("LCH"), a derivatives clearing organization ("DCO") registered with the Commodity Futures Trading Commission (the "CFTC"), is submitting non-deliverable European Vanilla FX Options ("NDOs") in certain currency pairs for determination of whether mandatory clearing should apply.

Background

LCH intends to extend the ForexClear product offering to include NDO contracts on five G10 currency pairs (AUD/USD, EUR/USD, GBP/USD, USD/JPY, USD/CHF) and four EM currency pairs (USD/BRL, USD/INR, USD/KRW, USD/TWD). ForexClear currently clears deliverable FX Options and FX Forwards in the same G10 currencies.

An NDO is settled by a net cash payment in the settlement currency (i.e. USD) reflecting the difference between the strike price and the settlement rate of the reference currency. Market participants trade NDOs typically for protection against unfavourable exchange rate movements.

Factors for determination

The existence of significant outstanding notional exposures, trading liquidity, and adequate pricing data

The FX market is fast paced, global and well established with a clear product set. The majority of FX transactions are short dated and volume has grown considerably over the last ten years. Table 1 shows total options average daily volumes for proposed currency pairs (Source: BIS Triennial FX Survey 2019).

<table>
<thead>
<tr>
<th>Currency Pairs</th>
<th>Total Options</th>
<th>AUD/USD</th>
<th>USD/BRL</th>
<th>USD/CHF</th>
<th>EUR/USD</th>
<th>GBP/USD</th>
<th>USD/INR</th>
<th>USD/JPY</th>
<th>USD/KRW</th>
<th>USD/TWD</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUD/USD</td>
<td>13,942</td>
<td>4,288</td>
<td>57,659</td>
<td>20,043</td>
<td>5,248</td>
<td>50,585</td>
<td>9,675</td>
<td>2,472</td>
<td></td>
<td></td>
<td>174,136</td>
</tr>
<tr>
<td>USD/BRL</td>
<td>10,224</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USD/CHF</td>
<td>4,288</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EUR/USD</td>
<td>57,659</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GBP/USD</td>
<td>20,043</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USD/INR</td>
<td>5,248</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USD/JPY</td>
<td>50,585</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USD/KRW</td>
<td>9,675</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USD/TWD</td>
<td>2,472</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>174,136</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The price data currently used in the ForexClear service is provided real-time directly by clearing members. Price data includes FX spot rates and swap points for specified tenors as well as implied volatility points for specified tenors and deltas for all currency pairs.

**The availability of rule framework, capacity, operational expertise and resources, and credit support infrastructure to clear the contract on terms that are consistent with the material terms and trading conventions on which the contract is then traded**

LCH has a well-developed rule framework and support infrastructure for clearing FX transactions. LCH will continue to leverage this existing operational capability to clear NDO contracts.

In order to prepare for the launch of this product, LCH has been performing testing, including capacity testing.

Further to this, LCH have notified its Clearing Members of a number of changes to the LCH Rulebook, which include changes to the contracts terms, procedures and regulations applicable to Clearing Members that are Futures Commission Merchants (“FCM Clearing Members”) and non FCM Clearing Members. The changes have been submitted for self-certification to the CFTC and are available on the LCH website.

**The effect on mitigation of systemic risk, taking into account the size of the market for such contract and the resources of the DCO available to clear the contract**

The operational capability to manage the product is already in place in LCH, which will leverage some of the processes that apply to the clearing of FX Options (e.g. in terms of exercise or expiry of contracts).

LCH expects current ForexClear Clearing Members to start clearing NDOs following the go-live date. A subset of existing Clearing Members clearing non-deliverable products will be ready on the go live date and plan to execute a few trades. More existing Clearing Members are expected to be ready in the new year where volumes/open interest in the eligible currencies are expected to increase.

Based on the statistics of the latest Triennial Survey of the Bank for International Settlements, the daily average turnover in FX Options in the relevant nine currency pairs represents less than 5% of the global market daily turnover. The FX market has a diverse set of participants but the top 7 banks are involved in 62% of all FX business, whilst the top 10 banks cover 80% of it. The market share of the ForexClear Clearing Members represents less than 20% of the average daily turnover. Therefore, allowing clearing of NDOs is unlikely to have a significant impact on the risk profile or total resources held by the ForexClear service. As such, the systemic risk profile of LCH remains unchanged as a result of the new product offering.

**The effect on competition, including appropriate fees and charges applied to clearing**

CME Clearing offers clearing of Cash Settled Options (“CSO”) in G10 currencies. LCH is not aware of competitors clearing NDOs in EM currencies at present.

Following the launch, scheduled for 19 October 2020, NDOs will be subject to the current fee plan applicable to the ForexClear non-deliverable service. The fees will differ according to the tariff...
chosen by Clearing Members (i.e. Bronze or Silver) and may consist of an annual charge and a charge based on the clearing activity.

_The existence of reasonable legal certainty in the event of the insolvency of the relevant DCO or one or more of its clearing members with regard to the treatment of customer and swap counterparty positions, funds and property_

The level of legal certainty around the clearing of NDO Contracts is in all material respects the same as that of the products already cleared in the ForexClear service at LCH.

Insofar as legal certainty in the event of the insolvency of the DCO is concerned, LCH would be wound up under English law.

_Further information §39.5(b)(iii-viii)_

The specifications of products eligible for clearing in the ForexClear service are set out in the LCH Product Specific Contract Terms and Eligibility Criteria Manuals, which are publicly available on the LCH website\(^1\). These will be updated with the specifications of the eligible NDO Contracts.

The participant eligibility standards for NDOs are the same as those for existing ForexClear Clearing Members.

As noted above, the market data is provided real-time directly by Clearing Members.

There are no material changes within the service. In particular, there are no changes to the operational model or material risk management changes. Initial Margin calculation, Variation Margin and settlement will all be in USD in line with the current NDF offering. The Sovereign Risk Margin (SRM) framework is going to be enhanced so that the calculation of the SRM add-on for NDOs, as well as NDFs, denominated in EM currencies will take into account the ‘likelihood of currency action’ (LCA). The objective is to proactively highlight currency risk/devaluation for relevant emerging market currencies and provide for additional margin as the risk rises.

LCH will make a number of changes to its Rulebook, the majority of which will be in the **Product Specific Contract Terms and Eligibility Criteria Manuals** and will set out:

- The NDO Contract terms
- The NDO Contract eligibility criteria
- The NDO Contract Templates

The other changes will include:

- Conforming changes in the **Default Rules, General Regulations, FCM Regulations, Procedures Section 2I (ForexClear Clearing Service)** and FCM Procedures.

\(^1\) https://www.lch.com/resources/rulebooks/lch-limited
- A number of new definitions in the General Regulations to reflect the introduction of the concept of “ForexClear Deliverable Service” and “ForexClear Non-Deliverable Service”, as well as definitions specific to the NDO Contracts.
- A new section 2.2.19 “Changes in Automatic Exercise of FCM ForexClear NDO Contracts” in the FCM Procedures and an amended equivalent section in the Procedures Section 2I (section 1.17).

The rule changes have been submitted to the CFTC pursuant to §40.6(a).

LCH engages its Clearing Members in the design and testing of new products at an early stage, through regular meetings and working groups. Clearing Members have been formally notified of the changes which LCH is required to make to its Rulebook.

Notice of this submission under CFTC regulation §39.5(b) was given to ForexClear Clearing Members on 24 September 2020 and a copy of this notice is provided at Appendix A. Furthermore, this submission is publicly available.

LCH intends to launch these products with its Clearing Members and clients no earlier than 19 October 2020.

Should you have questions please contact me.

Yours sincerely
P.P. Julian Oliver
Chief Compliance Officer
LCH Limited

---
Appendix A

Notice to Clearing Members regarding the 39.5 (b) submission on NDOs
Memo

To: ForexClear Clearing Members

From: Loic Moreau, Head of In-Business Risk ForexClear

Date: 24 September 2020

Subject: Non Deliverable Options ("NDOs") submission for determination of clearing requirements

Pursuant to CFTC regulation §39.5(b), LCH Limited ("LCH"), a derivatives clearing organization ("DCO") registered with the Commodity Futures Trading Commission (the "CFTC"), is submitting non-deliverable European Vanilla FX Options ("NDOs") in certain currency pairs for determination of whether mandatory clearing should apply.

As per CFTC regulation §39.5(b)(viii), LCH is required to notify Clearing Members of its submission. This note does not constitute a notification that the products are live for clearing. A notice announcing the live date and arrangements for the formal product launch may be published separately.

LCH intends to extend the ForexClear product offering to include NDO contracts on five G10 currency pairs (AUD/USD, EUR/USD, GBP/USD, USD/JPY, USD/CHF) and four EM currency pairs (USD/BRL, USD/INR, USD/KRW, USD/TWD). ForexClear currently clears deliverable FX Options and FX Forwards in the same G10 currencies.

An NDO is settled by a net cash payment in the settlement currency (i.e. USD) reflecting the difference between the strike price and the settlement rate of the reference currency. Market participants trade NDOs typically for protection against unfavourable exchange rate movements.

Factors for determination

*The existence of significant outstanding notional exposures, trading liquidity, and adequate pricing data*

The FX market is fast paced, global and well established with a clear product set. The majority of FX transactions are short dated and volume has grown considerably over the last ten years. Table 1 shows total options average daily volumes for proposed currency pairs (Source: BIS Triennial FX Survey 2019).

<table>
<thead>
<tr>
<th>(USD millions)</th>
<th>AUD/USD</th>
<th>USD/BRL</th>
<th>USD/CHF</th>
<th>EUR/USD</th>
<th>GBP/USD</th>
<th>USD/INR</th>
<th>USD/JPY</th>
<th>USD/KRW</th>
<th>USD/TWD</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total options</td>
<td>13,942</td>
<td>10,224</td>
<td>4,288</td>
<td>57,659</td>
<td>20,043</td>
<td>5,248</td>
<td>50,585</td>
<td>9,675</td>
<td>2,472</td>
<td>174,136</td>
</tr>
</tbody>
</table>

Table 1
The price data currently used in the ForexClear service is provided real-time directly by clearing members. Price data includes FX spot rates and swap points for specified tenors as well as implied volatility points for specified tenors and deltas for all currency pairs.

The availability of rule framework, capacity, operational expertise and resources, and credit support infrastructure to clear the contract on terms that are consistent with the material terms and trading conventions on which the contract is then traded

LCH has a well-developed rule framework and support infrastructure for clearing FX transactions. LCH will continue to leverage this existing operational capability to clear NDO contracts.

In order to prepare for the launch of this product, LCH has been performing testing, including capacity testing.

Further to this, LCH have notified its Clearing Members of a number of changes to the LCH Rulebook, which include changes to the contracts terms, procedures and regulations applicable to Clearing Members that are Futures Commission Merchants (“FCM Clearing Members”) and non FCM Clearing Members. The changes will be submitted for self-certification to the CFTC and will be made available on the LCH website.

The effect on mitigation of systemic risk, taking into account the size of the market for such contract and the resources of the DCO available to clear the contract

The operational capability to manage the product is already in place in LCH, which will leverage some of the processes that apply to the clearing of FX Options (e.g. in terms of exercise or expiry of contracts).

LCH expects current ForexClear Clearing Members to start clearing NDOs following the go-live date. A subset of existing Clearing Members clearing non-deliverable products will be ready on the go live date and plan to execute a few trades. More existing Clearing Members are expected to be ready in the new year where volumes/open interest in the eligible currencies are expected to increase.

Based on the statistics of the latest Triennial Survey of the Bank for International Settlements, the daily average turnover in FX Options in the relevant nine currency pairs represents less than 5% of the global market daily turnover. The FX market has a diverse set of participants but the top 7 banks are involved in 62% of all FX business, whilst the top 10 banks cover 80% of it. The market share of the ForexClear Clearing Members represents less than 20% of the average daily turnover. Therefore, allowing clearing of NDOs is unlikely to have a significant impact on the risk profile or total resources held by the ForexClear service. As such, the systemic risk profile of LCH remains unchanged as a result of the new product offering.

The effect on competition, including appropriate fees and charges applied to clearing

CME Clearing offers clearing of Cash Settled Options (“CSO”) in G10 currencies. LCH is not aware of competitors clearing NDOs in EM currencies at present.

Following the launch, scheduled for 19 October 2020, NDOs will be subject to the current fee plan applicable to the ForexClear non-deliverable service. The fees will differ according to the tariff
chosen by Clearing Members (i.e. Bronze or Silver) and may consist of an annual charge and a charge based on the clearing activity.

*The existence of reasonable legal certainty in the event of the insolvency of the relevant DCO or one or more of its clearing members with regard to the treatment of customer and swap counterparty positions, funds and property*

The level of legal certainty around the clearing of NDO Contracts is in all material respects the same as that of the products already cleared in the ForexClear service at LCH.

Insofar as legal certainty in the event of the insolvency of the DCO is concerned, LCH would be wound up under English law.

*Further information §39.5(b)(iii-viii)*

The specifications of products eligible for clearing in the ForexClear service are set out in the LCH Product Specific Contract Terms and Eligibility Criteria Manuals, which are publicly available on the LCH website3. These will be updated with the specifications of the eligible NDO Contracts.

The participant eligibility standards for NDOs are the same as those for existing ForexClear Clearing Members.

As noted above, the market data is provided real-time directly by Clearing Members.

There are no material changes within the service. In particular, there are no changes to the operational model or material risk management changes. Initial Margin calculation, Variation Margin and settlement will all be in USD in line with the current NDF offering. The Sovereign Risk Margin (SRM) framework is going to be enhanced so that the calculation of the SRM add-on for NDOs, as well as NDFs, denominated in EM currencies will take into account the ‘likelihood of currency action’ (LCA). The objective is to proactively highlight currency risk/devaluation for relevant emerging market currencies and provide for additional margin as the risk rises.

LCH will make a number of changes to its Rulebook, the majority of which will be in the Product Specific Contract Terms and Eligibility Criteria Manuals and will set out:

- The NDO Contract terms
- The NDO Contract eligibility criteria
- The NDO Contract Templates

The other changes will include:

- Conforming changes in the Default Rules, General Regulations, FCM Regulations, Procedures Section 2I (ForexClear Clearing Service) and FCM Procedures.

---

3 https://www.lch.com/resources/rulebooks/lch-limited
- A number of new definitions in the General Regulations to reflect the introduction of the concept of “ForexClear Deliverable Service” and “ForexClear Non-Deliverable Service”, as well as definitions specific to the NDO Contracts.

- A new section 2.2.19 “Changes in Automatic Exercise of FCM ForexClear NDO Contracts” in the FCM Procedures and an amended equivalent section in the Procedures Section 2I (section 1.17).

The rule changes will be submitted to the CFTC pursuant to §40.6(a) ahead of the launching date expected to be in October.

LCH engages its Clearing Members in the design and testing of new products at an early stage, through regular meetings and working groups. Clearing Members have been formally notified of the changes which LCH is required to make to its Rulebook.

Further information will form part of the full §39.5 filing which will be publicly available on the LCH website.

Please do not hesitate to contact me regarding any questions raised by this submission.