

5.3 Breaking margin netting sets

TABLE 29. SUMMARY OF COSTS AND BENEFITS OF NON-RECOGNITION FOR THE EU

Option		All positions relocate		Only new positions relocate	
Report section		Neg. impacts (costs)	Pos. impacts (benefits)	Neg. impacts (costs)	Pos. impacts (benefits)
Direct costs	Breaking netting sets	CMS: -- Funds: -- Other clients: ≈	≈	CMS: -- Funds: -- Other clients: ≈	≈
	Basis	--		– (less volatile if more time)	
	Concentration add-ons	–		–	

Magnitude of impact as compared with the baseline scenario (continued recognition): ++ strongly positive; + positive; -- strongly negative; – negative; ≈ marginal/neutral; ? uncertain; n.a. not applicable, CMS: EU clearing members.

231. This section provides an analysis of the possible costs and benefits that EU clearing members and clients may encounter as a result of broken netting sets in the case of a non-recognition of LCH SwapClear. It estimates the potential impact for EU positions on SwapClear when netting sets are broken and new netting opportunities appear due to EU clearing members and clients relocating their positions from a UK to another CCP (either inside the EU or not) with no or only a few other currencies cleared.⁶⁵ It also addresses factors leading to a higher or lower basis, such as arbitrage by non-EU-non-UK market participants and the directionality of positions and the potential impact of concentration add-ons that may be charged by both the TC CCP and EU CCPs after relocation.
232. The benefits from the cross-currency margining for ICEU STIRs are not material in both absolute and relative terms. From the data provided, the effects from cross-currency margining and cross-product margining could not be isolated, because the initial margin could be netted over several products. For example, an EU clearing member House account margined 5 IR products together (Three Month Euro (Euribor), Three Month Sterling, Long Gilt, 3 Month Swiss Franc, Three Month Sonia Index Futures). The aggregated netting benefit across all EU clearing member house accounts is just EUR 15.4 mn, implying an increase of 8.6 percent of total initial margin if all the products and currencies were margined separately. When considering all (both client

⁶⁵ The most likely candidate would be Eurex Clearing.



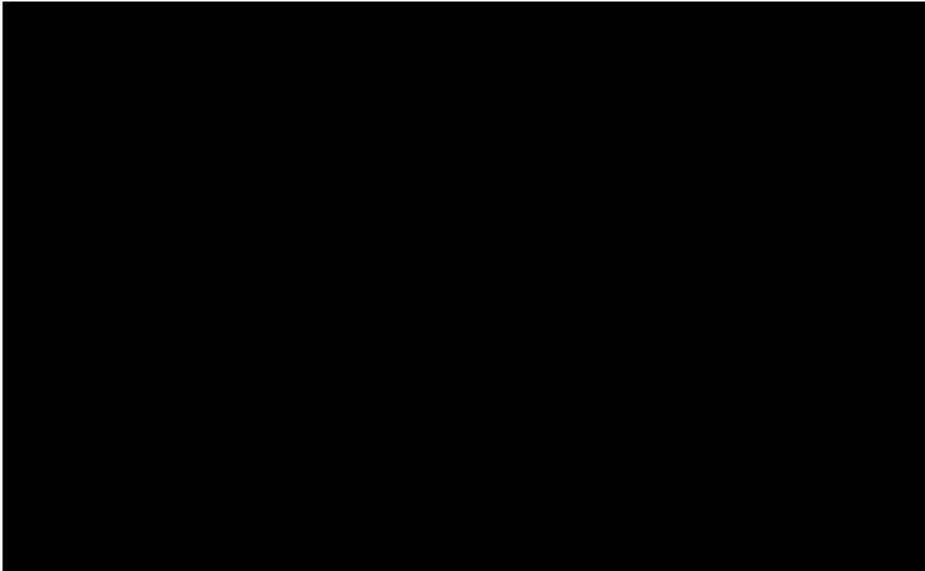
and house) accounts of EU clearing members, the netting benefit is EUR 39 mn, implying an increase of 8.3 percent without portfolio margining.

233. Data quality did not allow ESMA staff to perform a similar analysis for the ICEU CDS service.

IRD Market Overview

234. The directionality of positions of EU clearing members and clients at SwapClear is first analysed in order to better understand how balanced a market with only EU market participants would be and hence what a potential non-recognition of SwapClear might mean in terms of a migration of these positions and related costs.
235. The analysis includes positions of EU clearing members and four categories of EU clients (credit institutions, pension funds, funds, insurance companies). For each of these firms the DV01 risk measure⁶⁶ is used to remove any distortion from large notional, short-dated trades and to provide a fair measure of the directionality of the risk traded across all EUR rates products at SwapClear, notably IRS, OIS, FRAs, Basis, and Inflation. The full methodology is presented in Annex VI. The analysis here covers IRD in EUR. Annex VII presents the overview for other currencies.
236. The analysis finds that the market is relatively balanced and that a hypothetical market that only consists of EU participants would come with relatively low additional cost. Figure 34 illustrates the findings. Within each of the client categories considered, most clients share the same position directionality. Indeed, they mostly have directional risk positions to hedge their underlying activity. The net positions of (client) Credit Institutions are offset to a large extent by the net positions of Insurance and Pension Funds. EU Clearing members on the other hand have a more diverse positioning, with a net DV01 across all house accounts of EUR 52 mn. The net risk across both EU client and house positions is roughly balanced with a net DV01 of EUR -25 mn. This is low relative to the total size of the market.

⁶⁶ DV01 is the value change in price (value) of an interest rate derivative in response to a change of one basis point in the yield curve of the instrument.



Potential cost to EU counterparties from broken netting sets

237. Separate pools of liquidity generally offer less opportunities for netting efficiencies and thus come with a cost for EU clearing members and clients. Costs can arise from the losses that EU counterparties face from losing (parts of) the benefits from current offsets at TC CCPs, including cross-currency offsets, that may be possible due to the correlation of risk factors within clearing portfolios. In particular, cross-currency offsets can apply to IRD where margin efficiencies are possible from offsetting risks from transactions in one currency (e.g., EUR) against risks from transactions in other currencies (e.g. USD or JPY).
238. Costs for EU counterparties may arise from higher amounts of collateral required at EU CCP(s), associated with the raising and funding of the required initial margin and default fund contributions, on the one hand, by the TC CCP from which transactions are moved out of a portfolio and, on the other, by the receiving CCP where the transactions may now be included in a portfolio that offers fewer risk offsets. Actual margin netting possibilities depend on the portfolios being cleared, the product and currency offering of the CCPs, and the types of positions being moved. In addition, margin netting possibilities can change over time, due to changes in market conditions and depending on the margin models used by the respective CCPs.
239. From its data request, ESMA received estimations of the losses and gains from netting efficiencies for clearing members. The estimates received were from (often large) clearing members, other market participants have different portfolio structures. The estimates indicate an increase in margin requirements ranging between 16 and 76 percent. In some cases, the expected increase in initial margin requirements stems from an increase of the activity in the EU CCP that would not be compensated by a fall in margin requirements at LCH Ltd. Some dealers even reported that initial margin (IM) requirements would increase at LCH Ltd, given that the USD positions remaining there would lose their cross-currency risk offsets with EUR. More generally, EUR and USD positions have been reported as the key drivers of the total IM. The impact could be

even greater for currencies pegged to the EUR, for example, the DKK. For these currencies there are greater benefits from netting (with contracts in EUR).

240. ESMA also received information from EU markets participants with examples of how costs can increase following the breaking of netting sets. Box 5 presents a couple of concrete examples of how margin can increase for IRD trades.

BOX 5. EXAMPLES OF AN INCREASE IN MARGIN ON SIMPLE IRD TRADES

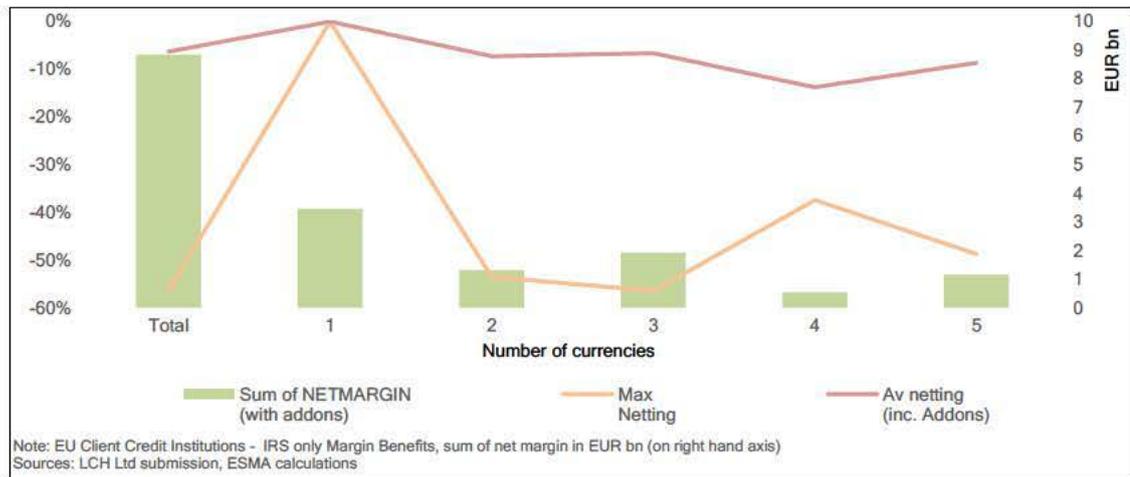
A dealer trading a EUR/USD fixed cross-currency 30Y for a corporate would hedge it using cleared EUR and USD swaps. When hedging both legs at the same (UK) CCP, it would use cleared EUR and USD swaps from that CCP. In contrast, if the dealer had to use a different CCP for each leg (an EU and a US CCP say), it reported that its hedging cost would increase from 0.8 bp to 1.8 bp. The 1bp increase on 30Y is explained by the IM impact during the life of the product due to the loss of cross-currency margining.

A portfolio consisting of two 10Y swaps, a fixed rate payer in USD and a fixed rate receiver 10Y EUR swap, has offsetting interest risk. A dealer reported that the margining benefit at LCH Ltd is around 50 percent for such a portfolio, with total gross margins being twice the net margin.

241. To complement and test the estimates provided by clearing members, and to better understand how margin cross-currency benefits vary across market participant categories, ESMA staff also estimated the impacts of breaking up of netting sets independently, using data received from LCH Ltd in the data request. Margin benefits were estimated by comparing the total margin that would be charged without accounting for any netting (summing the gross margins computed per currency) with the net margin after netting.
242. To do the estimation, ESMA staff first requested that LCH Ltd provide both gross and net margins for each account in its SwapClear service. LCH Ltd reported gross margins separately per currency. Inflation derivatives (for EUR, GBP, and USD) were also reported separately from other IRS products. For the analysis, we looked only at EU market participants that clear at least one EU currency and to disentangle cross-currency from cross-product margining, we first used accounts that only cleared IRS products.
243. A first finding from our analysis is that EU credit institutions, pension funds and insurance, as clients, currently have (on average) limited cross-currency benefits at LCH Ltd – though there are exceptions with some clients achieving substantial savings.

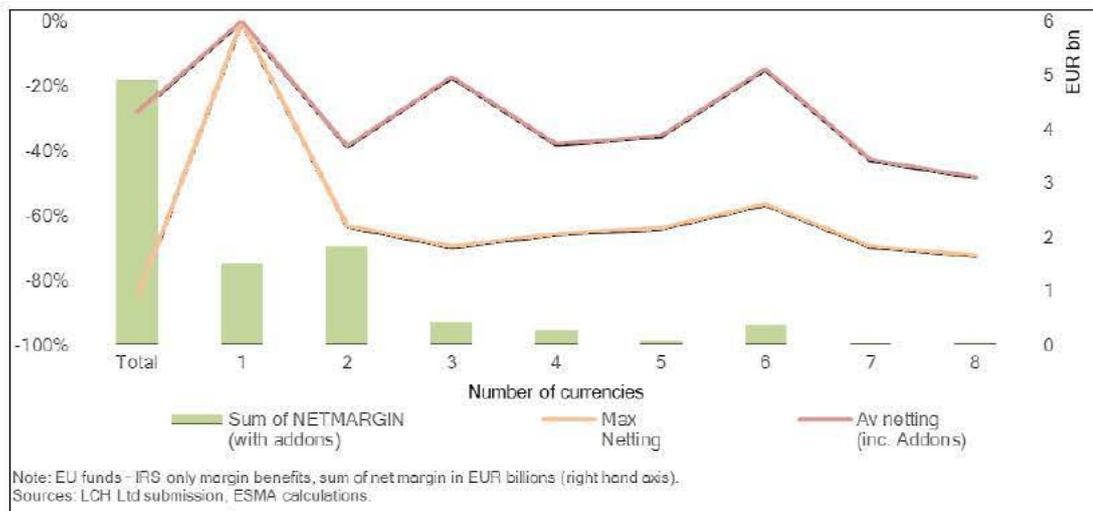
Figure 35 shows the savings for EU bank clients, categorized by number of currencies cleared. In particular, it presents the sum of the net margin, the maximum netting achieved and the achieved saving for the whole group.

FIGURE 35. IRS MARGIN CROSS-CURRENCY SAVINGS - CLIENT EU CREDIT INSTITUTIONS



244. Overall, the margin savings across all accounts are 6.34 percent (amounting to EUR 600 mn). Of the total net margin of EU clients, 39 percent is for accounts that clear only one currency and so do not benefit from any cross-currency margining benefits. The other accounts, with two or more currencies cleared, only see a reduction of around 10 percent of the margin requirements. Although some client banks realise much more substantial savings, at around 50 percent.
245. Under the conservative assumption that, in case of a relocation away from SwapClear to a CCP without other substantial cross-margining possibilities, and assuming that all currencies would need to be cleared separately, margins would then increase for EU client credit institutions by 6.76 percent on average, though would double for some. Similarly, margins for insurance companies would increase by 5.87 percent (or EUR 364 mn). Pension fund margins would remain almost unchanged.
246. A second finding is that EU funds currently benefit much more on average from cross-currency margin benefits than other client categories. Figure 36 shows that the current total netting benefits stands at 28 percent, implying a potential margin increase of 39 percent (EUR 1.94 bn) for EU funds, assuming all currencies are cleared separately in case of a relocation away from SwapClear. With only 30 percent of the net margin in accounts cleared in only one currency, other accounts would typically see a 40 percent rise in margins, with extremes of 500 percent.

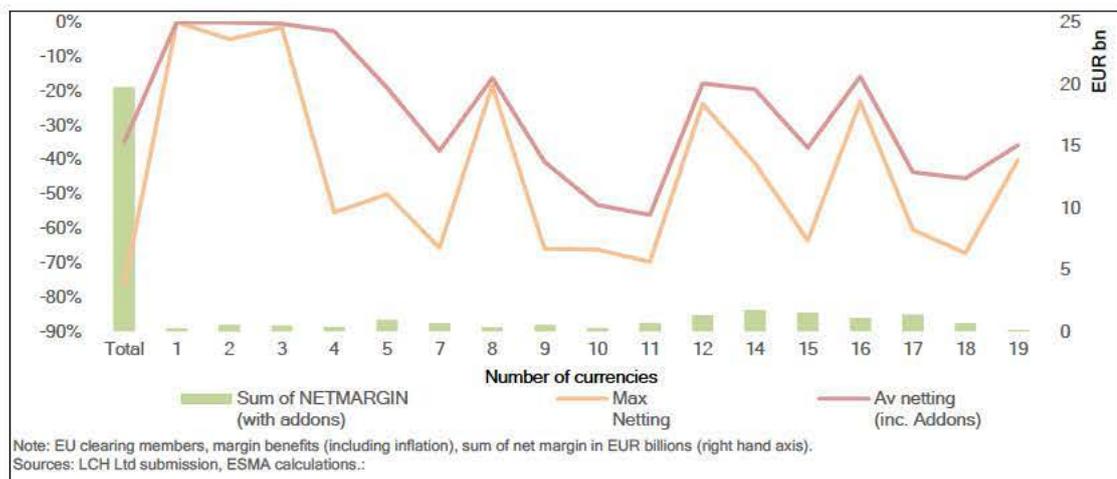
FIGURE 36. IRS MARGIN CROSS-CURRENCY SAVINGS - CLIENT EU FUNDS



247. The different findings for credit institutions (as clients) and funds can be explained by their respective currency positions. While the share of EU currencies in the total gross margins for client credit institutions is 90 percent, it is around 61 percent for funds. Figure 48 in Annex VIII summarises the findings for EU clients.

248. A third finding is that EU clearing members currently benefit from substantial margin savings from cross-currency margining and cross-product margining at LCH Ltd. Cross-product margining concerns IRS and inflation products. As illustrated in Figure 37, the total margin savings (cross-currency and cross-product between IRS and inflation products) for EU clearing members at LCH Ltd is currently significant, at around 35 percent with addons and 44 percent without addons. This would imply a maximum potential margin increase of 53.7 percent or EUR 10.6 bn.

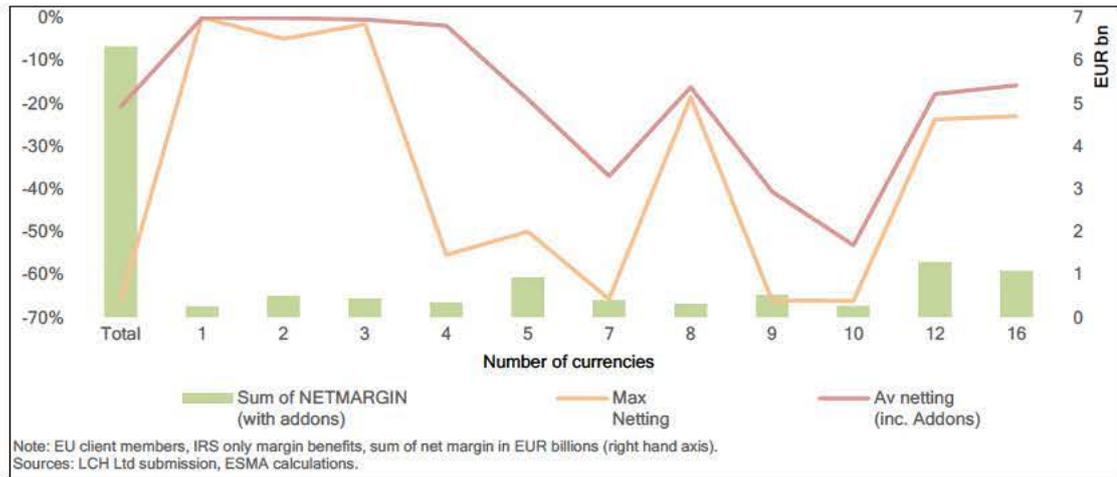
FIGURE 37. IRS & INFLATION MARGIN SAVINGS - EU CLEARING MEMBERS



249. Figure 38 shows the impact of cross-currency margining for clearing members that do not trade inflation products at LCH Ltd. The average benefit stands at 20.8 percent with

addons (and 26 percent without addons) implying an increase of 26.3 percent (EUR 1.67 bn) under the conservative (and unrealistic) assumption that all currencies would be margined separately. Those clearing members clear a higher share of EU currencies than clearing members that also clear inflation products.

FIGURE 38. IRS MARGIN CROSS-CURRENCY SAVINGS - EU CLEARING MEMBERS



250. Based on these analyses, some conclusions can be drawn about the loss of netting benefits in the case of a relocation of clearing of EU currencies by EU clearing members away from SwapClear to a CCP where there are limited possibilities for cross-currency margining (for example, Eurex Clearing). Market participants with a large activity in non-EU currencies, such as clearing members and funds, will be most affected. Other client categories such as credit institutions, insurance companies, and pension funds would be significantly less impacted, because they mostly clear EU currencies.
251. Therefore, in conclusion, the costs for EU clearing members and EU funds are evaluated as substantial ('--'), and marginal for other clients ('~'). The conclusions are also comparable for a situation in which all positions relocate and a situation in which only new positions relocate.

Potential benefits for EU counterparties from cross-product offsets

252. Eurex Clearing offers netting opportunities across different products denominated in Euro (ETD and OTC). Cross-product offsets at Eurex Clearing are achieved by cross-margining IRS products with bond futures, which results in lower margins. Estimations from market participants on the gains from cross-product offsets indicate that these depend on the portfolio structure.

253.



[Redacted]

254.

[Redacted]

255.

[Redacted]

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[Redacted]

257.

[Redacted]

It is recognised that these findings reflect the current situation and may change in case Eurex Clearing would be able to attract more clearing members, more clients, and generally more liquidity.

258. In conclusion, cross-product offsets available at Eurex Clearing appear to offer limited benefits for most participants, mainly due to the directionality of their positions. And even for those with more balanced positions (i.e., clearing members), the actual benefit remains significantly lower than that provided by cross-currency margining. On this basis, Table 29 does indicate only marginal benefits from cross-product margining.

Potential costs for EU counterparties related to the existence of a 'basis'

259. The 'basis' is the price difference between two CCPs which offer clearing for the same product. Bases can develop between two CCPs if there is a different composition of market participants, with more or less directional portfolios, and different market flows across the two CCPs. Empirical data shows that bases change over time, can be volatile and are unpredictable. The directionality of client portfolios may lead to the portfolios of dealers being equally directional, leading to larger margin requirements, particularly when dealers breach concentration risk thresholds at a CCP or can only

find the offsetting hedging transaction if it is cleared at a different CCP. Dealers price a higher margin for this.

260. ESMA's analysis found that, indeed, dealer banks constantly optimise initial margin (IM) payments to LCH Ltd, e.g., via backloads of bilateral trades, or new bilateral trades, that help them reduce their bilateral/CCP risk position. Given that LCH Ltd is currently the CCP with the highest liquidity, it attracts more hedging positions. Banks are also keen to avoid having open interest in different CCPs for costs (IM in particular) and risk purposes. The currently weaker liquidity at the EU CCPs implies, therefore, a significant dependency on markets flows and, as a result, potentially substantial volatility on the spread between a UK and an EU CCP, in case of a non-recognition of the UK CCPs and clearing volumes moving to an EU CCP. In this case, EU market participants would be exposed to the cost related to a basis. [REDACTED]

261. [REDACTED]

262. [REDACTED]

263. The basis is potentially attractive to arbitrage when the spread pays for the IM on each side of the trade. The basis arbitrage profitability is mostly driven by the funding cost of IM balances associated with clearing the two offsetting trades at the two CCPs. The funding costs will depend on the cost of funds of the market participant and how much netting can be achieved in each CCP given its other positions. Assuming a cost of funds of 50bp, a netting degree of 40 percent at the UK CCP and that IM runs off linearly with time, one clearing member estimated that the funding cost for a basis position in USD/EUR 30Y would be 5.8bp (resp. 3.2bp) for a holding period of 30Y (resp. 10Y). Another dealer reported that the arbitrage bound for the 30Y swap would be around 4 bp. The expected holding time of the basis position is also key as it can be profitable to close the trade before the expiry of the swaps.

264. Only market makers and market participants who have access to both CCPs can lower the basis. In the case of an approach based on non-recognition, the basis is likely to

be driven in the main by the capacity of non-EU firms to be able to warehouse this risk. As a result, the dependency on non-EU firms becomes larger. Dealers with dual access would implicitly trade it by hedging where it is cheaper for them (taking into account the IM-valuation adjustment). Dealers without dual access would be put at a competitive disadvantage, as discussed in more detail in the general consequences section below.

265. Under benign market conditions, this mechanism would also help to constrain the basis. However, the basis is sticky in nature and difficult to trade, with depth and liquidity at both CCPs important. In their responses to the data request, dealers reported a typical market impact for 1 mn DV01 on 10Y of 0.25 bp in normal market conditions (higher than the currently observed basis). Reported market impacts on 30Y are slightly higher but with very wide range of estimates, reflecting uncertainty at longer maturities. Market impacts could also be 3 times higher in stressed markets. It should be also noted that the larger the basis risk, the higher the margin in particular for longer-maturity contracts. This would increase procyclicality risk.
266. In practice, the Eurex/LCH basis has been limited to less than 0.5 basis points for maturities up to 10 years in 2020 – sometimes close to zero especially for shorter maturities – with the exception of the period of Covid-related market stress between March and May, where the CCP basis increased, in particular for longer maturities.
267. Based on the above, the existence of a basis would potentially create costs and risks for EU counterparties. Importantly, this would very directly impact clearing members engaged in a market-making activity for which they would lose access to LCH Ltd. However, the volatility and size of the basis would also be reduced due to the relatively balanced directionality of EU clients. A large participation of counterparties to both CCPs would also be beneficial to control the basis, through regular optimisation of positions (by dealers) or by engaging into arbitrage (by hedge funds). A longer lead time for the relocation should also increase participation and hence, reduce the risks stemming from the basis, although the risk would remain significant.
268. The CDS segment, with its already more balanced market, has wider bid-ask spreads and shorter maturities than the IRS market. It should therefore see its bases less impacted than IRS bases by a non-recognition. The above considerations are even less relevant for ICEU STIR given the short-term nature of the instruments.
269. Therefore, Table 29 reflects the cost of the potential existence of a basis, following a non-recognition of SwapClear, as strongly negative for EU market participants ('- -'). If only new positions would relocate the cost for EU market participants would be negative ('-'). The longer the transition time, the lower expected volatility and the lower the cost.

Potential impact of concentration add-ons charged by TC CCPs and EU CCPs

270. Assuming comparable liquidity becomes available in EUR IRS in more than one CCP, market participants would also consider the concentration add-ons charged at the different CCPs. When choosing where to clear positions, the difference in concentration margining could have an impact.
271. Indeed, during any transition, the lower liquidity at the EU CCP could make the same position more concentrated than if it had remained at LCH. One clearing member reported that for products in less liquid currencies (such as Scandinavian currencies), liquidity add-ons at Eurex Clearing could attract even more significant liquidity add-ons than those already charged at LCH Ltd. This clearing member interpreted this as a sign of lack of support by other members for these products.
272. In addition, by splitting its positions between the two CCPs, a clearing member would prevent each CCP from having a comprehensive picture of the risks it runs. CCPs would hence not be able to adjust the concentration charges accordingly. In the case of a default of such a clearing member, positions in both CCPs would likely have to be liquidated at the same time in the market. These general considerations would also be relevant for positions cleared at ICEU, and in particular CDS derivatives which are charged larger concentration add-ons than STIR.
273. Based on the above, a split liquidity could result in positions effectively being more concentrated relative to the available liquidity at any given CCP. It could also prevent the CCPs from having full transparency of the total cleared positions of clearing members. Therefore, the costs are evaluated as negative in Table 29 ('-').

5.4 General consequences of non-recognition for EU market participants

TABLE 30. SUMMARY OF COSTS AND BENEFITS OF NON-RECOGNITION FOR THE EU

Option		All positions relocate		Only new positions relocate	
Report section		Neg. impacts (costs)	Pos. impacts (benefits)	Neg. impacts (costs)	Pos. impacts (benefits)
General Consequences	Competitiveness of EU market participants	CMs -- Clients -- EU trading venues -	Migration to EU: EU CCPs +	CMs-- Clients-- EU trading venues -	Migration to EU: EU CCPs +
	Liquidity of cleared markets	Migration to TC and to EU (ST) --	Migration to EU (LT- dynamic) ≈	Migration to TC and to EU (ST) --	Migration to EU (LT- dynamic) ≈
	Financial stability risks	Migration to EU - Migration to TC --	Migration to EU ++	Migration to EU - Migration to TC --	Migration to EU ++
	Relocation of business outside the EU	Migration to EU ≈ Migration to third country-		Migration to EU ≈ Migration to TC -	
	Access to hedging	Clients -		Clients-	
	Access to clearing	CMs - clients-		CMs - clients-	

Magnitude of impact as compared with the baseline scenario (continued recognition): ++ strongly positive; + positive; - strongly negative; - strongly negative; ≈ marginal/neutral; ? uncertain; n.a. not applicable, CMs – EU clearing members, LT – long term, ST – short-term.

274. This section considers the potential consequences for the EU market structure and EU market participants of a non-recognition of a UK CCP. The outcome depends on the expected migration of clearing business from LCH Ltd/ICEU to EU CCPs and/or other TC CCPs.
275. Table 30 above presents a summary of the analysis of general consequences, which, in accordance with the methodology, considered several elements relating to the impact of a decision not to recognise LCH Ltd to provide clearing services for IRS on certain EU currencies. This analysis considered the scenario where EU clearing members and EU clients would move their positions from LCH Ltd to Eurex Clearing. If instead, positions moved to another recognised TC CCP, e.g., CME, the overall outcome of the analysis would be even more negative, as there would be no benefits for EU CCPs.

276. The considerations described in this section, such as the decision on whether to move positions to an EU CCP or TC CCP, are behaviour-dependent and difficult to predict.
277. The considerations made for LCH Ltd are also applicable to a large extent to ICEU CDS. Although the scenario where CDS positions are moved altogether to ICE Clear Credit remains a material possibility [REDACTED]
278. Concerning ICEU STIR, the market could move altogether to an EU CCP (ICE NL or Eurex Clearing), in which case there would be no liquidity split and hence, no negative consequences.

Competitiveness of EU market participants

279. A decision not to recognise the Tier 2 CCPs to clear certain products would have significant impacts on market structure, the dynamics of the affected markets and on the nature of competition.
280. In a scenario where clearing business will migrate from UK CCPs to EU CCPs (rather than to TC CCPs), recipient EU CCPs would expect to improve their competitiveness, benefiting from increasing economies of scale and increasing liquidity from more clearing volumes for these products, rendering them more attractive to EU participants. Once EU CCPs have built sufficient liquidity, it could also be possible that EU CCPs attract non-EU counterparties.
281. For EU clearing members and clients, feedback received from market participants indicates that these would likely lose a significant degree of competitiveness relative to non-EU participants.
282. Once precluded access to the Tier 2 CCPs, EU clearing members would need to move their house business, and for clients that agree, client business to EU CCPs. However, losing access to UK CCPs for clearing certain products, particularly IRS in EUR, would hinder their ability to compete in a range of related clearing services (client clearing, market making), and could render related business lines unviable, and potentially lead them to exit markets.
283. [REDACTED]

284. At the same time as EU clearing members lose access, the largest non-EU clearing members that retain access to both the UK and EU CCPs would be the only firms in a position to offer the necessary switch trades between the two CCPs. These non-EU clearing members, and other counterparties (e.g., hedge funds) that retain access to both EU CCPs and UK CCPs, would also be able to arbitrage any future basis that arises between CCPs, becoming the market makers that provide a potentially expensive conduit for liquidity between the two CCPs. The premium charged by these non-EU market makers would be borne by EU counterparties. However, in the long-medium term, the creation of a new liquidity pool at EU CCPs could rebalance the costs and normalise the basis on the market (examples of the markets presented in the 'Basis' section) thereby reducing the cost of conduit.
285. As a consequence of these effects, EU clearing members expect that a large part of the market-making business by EU dealers may well have to be discontinued.
286. EU clients could choose between moving their business to the EU CCPs along with EU clearing members or to move to non-EU clearing members to maintain indirect access to the Tier 2 CCPs to clear instruments not subject to the clearing obligation. For assets subject to the clearing obligation, instead, they will have to clear at EU CCPs or at a recognised TC CCP (or relocate their business to a subsidiary outside the EU in order to continue clearing at the Tier 2 CCPs).
287. In reality, it is difficult to estimate the size of the negative economic impact this effect could have on EU clearing members, as it depends on the amount of business they have with non-EU clients and how clients for whom the choice is available assess the costs of switching CCPs against the cost of switching clearing members. In particular, choosing to switch clearing members may be more efficient for clients whose OTC IRD portfolios include significant amounts of non-EU currencies for which market liquidity is expected to remain overwhelmingly in LCH Ltd.
288. In a scenario where clearing activity will migrate from UK CCPs to other TC CCPs, there would be no benefits for EU CCPs, while all other negative impacts analysed above will equally materialise as EU clearing members and EU clients will have to move their positions to the relevant TC CCPs recognised to clear those products.

Liquidity of cleared markets

289. In a scenario where a decision not to recognise the Tier 2 CCPs to clear certain products would imply the migration of EU clearing members' and EU clients' activity to EU CCPs, the liquidity of the cleared markets will be split between the relevant CCPs.
290. For instance, liquidity on IRS in EU currencies would be split between LCH Ltd and Eurex Clearing. As outlined in section 5.3, this comes with additional cost and dependencies. The dependence on non-EU dealers would potentially pose risks to financial stability. While as noted above, non-EU dealers may find it profitable to

provide liquidity to the onshore market in BAU conditions, it is not obvious that they would continue to do so in a crisis, considering that also these non-EU dealers will face additional credit, liquidity and procyclicality risks.

291. Consequently, EU counterparties would largely become dependent on non-EU dealers to hedge their positions (at the spread fixed by the latter, given their predominant position) and could then find it difficult to find counterparties at competitive prices. Moreover, liquidity could shrink quickly in crisis situations, leaving the EU participants unable to adjust their positions on the onshore market, precisely when access to the derivative markets would be most critical for minimising risk exposures.
292. The extent to which these dependencies and risks persist in the longer-term depends on how clearing volumes move over time. It is uncertain whether EU CCPs attract non-EU participants and reach a balanced liquidity pool, reducing dependence on non-EU dealers. The EU market is currently balanced to a certain extent and additional liquidity may be positively contributing to a more balanced market.
293. For instance, the migration of positions from SwapClear to Eurex Clearing could increase the liquidity pool at the latter CCP significantly, which will be likely make the EU CCP more attractive also to international non-EU participants.



Such future market dynamics would play a strong role in defining potential gains and costs, that are surely hard to quantify at this stage but cannot be ignored.

294. In a scenario where clearing activity will migrate from UK CCPs to other TC CCPs, market liquidity would also be split between UK CCPs and TC CCPs with the consequent negative implications considered above.

Financial Stability Risks

Credit and liquidity risk

295. Credit risk is represented by the probability that clearing members may lose the financial resources they have posted at CCPs in terms of initial margins and add-ons (such as concentration add-ons) and default fund contributions (and of being called to contribute to a default or non-default loss with further non-prefunded resources).
296. Liquidity risk is represented by the probability for clearing members of not being able to meet the payment obligations to the CCPs, including variation margins besides the contributions to the CCP default waterfall.

297. In a scenario where clearing activity will migrate from UK CCPs to EU CCPs, such a migration would lead to an increase in overall credit and liquidity risk exposures on EU CCPs. For instance, the split of clearing activity between LCH Ltd (for international transactions off-shore) and Eurex Clearing (for domestic transactions between EU participants on-shore) could result in netting benefit losses (see section 5.3), which in turn would likely imply higher gross margins and default fund contributions, increasing the main credit exposures to CCPs. However, CCPs are subject to EMIR requirements, which should ensure their resilience and mitigate credit risk vis-à-vis the CCPs.
298. The migration of clearing from a Tier 2 CCP to a single EU CCP could further increase risk concentration at the receiving CCP. This could in turn increase the concentration of this market segment in a few clearing members, which could lead to higher concentration add-ons. With respect to IRS, in order to minimise higher concentration at Eurex Clearing, the clearing of IRS non subject to the clearing obligation could remain at LCH Ltd or migrate to another EU CCP.
299. Finally, credit risk on EU clearing members could also increase due to the negative impact on their creditworthiness resulting from i) reduced revenues (exit from the client clearing services) and, where applicable, ii) higher capital requirements (at the group level, if continuing to clearing at LCH Ltd via non-EU subsidiary) and iii) higher margin requirements and default fund contribution (due to more concentrated position in Eurex Clearing). Despite this, it could be counterargued that capital requirements should still ensure that credit risk is adequately covered.
300. In a scenario where clearing activity will migrate from Tier 2 CCPs to other TC CCPs, credit and liquidity exposures to those TC CCPs will increase which will imply higher financial stability risk as long as such CCP are recognised as Tier 1 CCPs and thus are not subject to EMIR requirements and ESMA supervision.
301. A non-recognition may, however, potentially create benefits from a market risk perspective as it would reduce the high dependencies on UK CCPs. As highlighted in the chapters assessing the substantial systemic importance of the three services (chapters 3 and 4), the amount of financial resources required from EU clearing members to cover their exposures to UK CCPs concerned is very significant [REDACTED]. From a financial stability point of view, the non-recognition of UK CCPs services would drastically reduce the current extremely high dependence and credit and liquidity exposures of EU clearing members to Tier 2 CCPs services, which is a key benefit in terms of financial stability risks to be factored in this analysis under either scenario.

Procyclicality

302. There is no clear impact on the procyclicality of margins that EU market participants would be exposed to following a non-recognition. As Tier 2 CCP and EU-CCPs are both subject to EMIR requirements, it is unsure whether a migration of clearing

activities from Tier 2 CCPs to EU CCPs is expected to have implications on margin procyclicality.

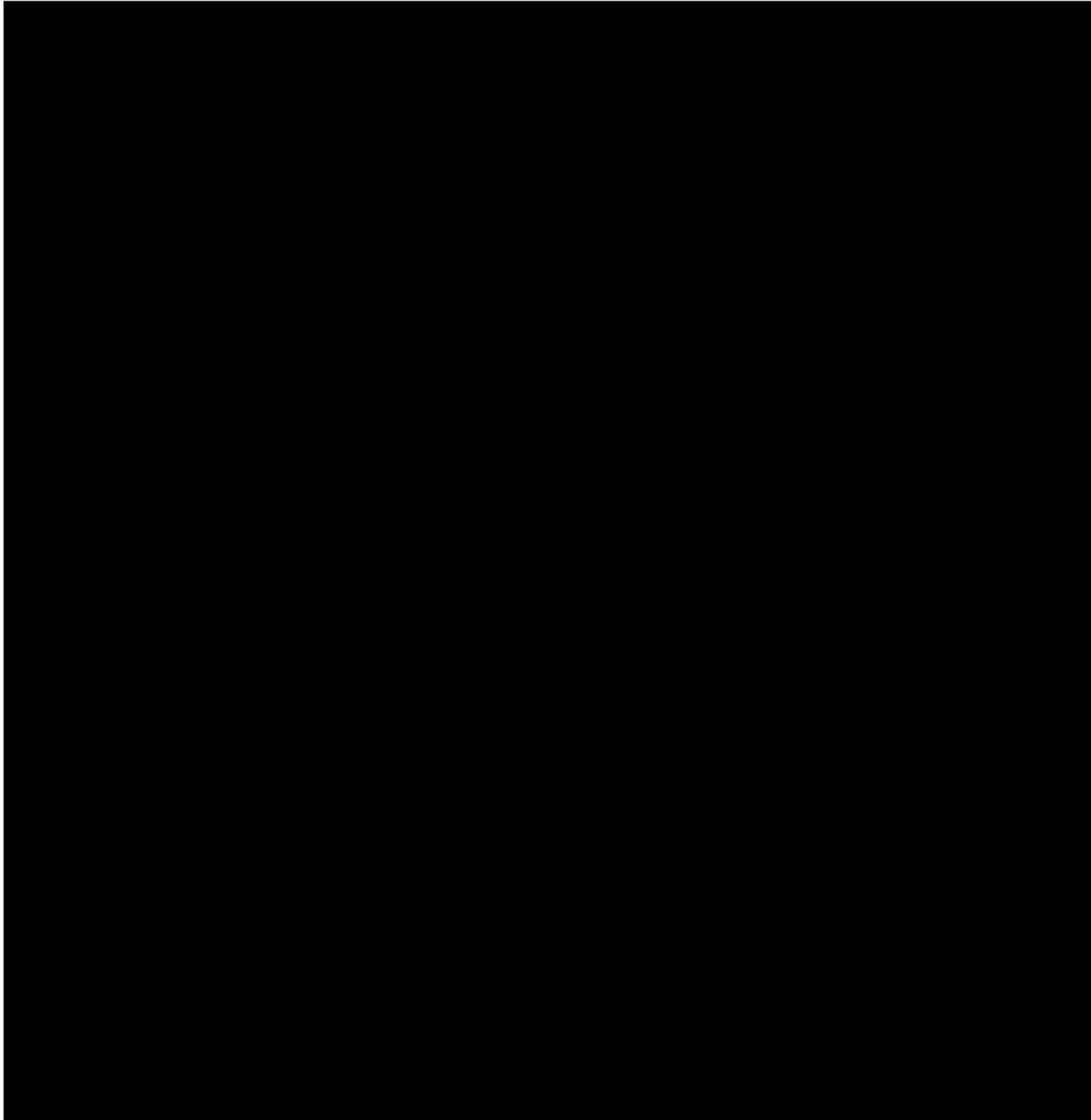
303. As Tier 2 CCP and EU-CCPs are both subject to EMIR requirements, it is unsure whether a migration of clearing activities from Tier 2 CCPs to EU CCPs will have implications on margin procyclicality. Also, different CCP models can be more or less procyclical, as long as they comply with regulatory requirements.
304. In theory, the split of liquidity and limited netting could on the one hand increase the magnitude of margin calls, including the procyclical ones, for non-EU dealer members acting in both markets (e.g., EUR IRS in Eurex Clearing and other currencies IRS in SwapClear), while on the other hand help avoiding procyclical calls resulting from reduced offsets due to sudden correlation breakdowns (e.g., a problem in GBP margin would not lead in EUR margin increase if kept separately).

Default management

305. If only a subset of clearing members would migrate to EU CCPs, any default at the latter would involve (and result in the mutualisation of losses among) a smaller number of clearing members than currently at Tier 2 CCPs with a wider membership. Moreover, as already noted above, as long as market liquidity will be split between Tier 2 CCPs and EU CCPs, the latter would heavily depend on the role of non-EU dealers for the successful management of a default and, in particular, a successful default auction.
306. Finally, in a highly concentrated EU CCP, the default of top clearing members would represent too big positions for average-size EU clearing members and porting of client positions could be more difficult rather than currently at Tier 2 CCPs. In particular, some respondents claimed that the current manual porting procedures at Eurex Clearing should be upgraded along the ones available at LCH Ltd to support the automatised porting of a big numbers of positions in a default event.

[REDACTED]

[REDACTED]



Relocation of clearing business outside the EU

307. In order not to breach the EMIR obligation to clear directly only at authorised or recognised CCPs, EU clearing members at Tier 2 CCPs could establish a subsidiary in a third country, as a way to maintain access to the two UK CCPs, as further analysed in Box 7 below.

Box 7. REGULATORY REQUIREMENTS UNDER EMIR AND CRR

In accordance with **Article 25(1) of EMIR on the recognition of TC CCPs** “a CCP established in a third country may only provide clearing services to clearing members or trading venues established in the Union where that CCP is recognised by ESMA”. As EMIR is not enforceable vis-à-vis non recognised TC CCPs, relevant EU authorities should ensure that entities established in the EU do not become clearing members of non-recognised TC CCPs or, as relevant, discontinue any existing membership with non-recognised TC CCPs.

Article 25(1) does not prevent, however, that i) entities established in the EU as clients indirectly clear at a non-recognised TC-CCP, and ii) entities established outside the EU are clearing members of a non-recognised TC CCP even when belonging to a consolidated EU group.

Nevertheless, **Article 4(3) of EMIR on the Clearing Obligation** prescribes that *“the OTC derivative contracts that are subject to the clearing obligation shall be cleared in a CCP authorised under Article 14 or recognised under Article 25 to clear that class of OTC derivatives. For that purpose, a counterparty shall become a clearing member, a client, or shall establish indirect clearing arrangements with a clearing member [...]”* In other words, EU counterparties cannot clear OTC derivatives contracts subject to the clearing obligation with non-recognised TC-CCPs.

Thus, to clear OTC derivative contracts subject to the clearing obligation at a non-recognised TC-CCP without breaching the two EMIR rules mentioned above, an entity established in the EU could consider establishing a subsidiary outside the EU to which transferring its positions to be cleared, directly as a clearing member or indirectly as a client, with a non-recognised TC-CCP.

Indeed, in accordance with **Article 4(2) of EMIR on exemption for intragroup contracts** *“without prejudice to risk-mitigation techniques under Article 11, OTC derivative contracts that are intragroup transactions shall not be subject to the clearing obligation”* and could be cleared at a non-recognised TC-CCP *“where the counterparty established in the Union has been authorised to apply the exemption by its competent authority within 30 calendar days after it has been notified by the counterparty established in the Union”*.

However, where permissible, the use of a non-recognised TC-CCP (i.e., a non-qualifying CCP - non-QCCP) will imply higher capital requirement for EU Institutions subject to the Capital Requirement Regulation (CRR).

Articles 303 of CRR on the treatment of clearing members' exposures to CCPs and 306-310 on own funds requirements for exposures to CCPs prescribes that institutions acting as clearing members shall apply different treatment for their trade exposures and other pre-funded and unfunded exposures to CCP, depending on whether a CCP has been authorised or recognised under EMIR (QCCP) or not (non-QCCP), whereby own fund requirements for exposures to a QCCP are more favourable than for those to a non-QCCP.

Furthermore, **Article 305(2) on treatment of clients' exposures** also allow that, where an institution is a client, it may calculate the own funds requirements for its trade exposures for CCP-related transactions with its clearing member in accordance with the favourable treatments for exposure towards a QCCP, if the relevant CCP is a QCCP and subject to certain other conditions.

Currently, no TC CCP qualify as non-QCCP. **Article 497 on own funds requirements for exposures to CCPs** introduced a transitional provision for TC CCPs which are not yet recognised. *Where a third country CCP applies for recognition in accordance with Article 25 of [EMIR], institutions may consider that CCP as a QCCP from the date on which it submitted its application for recognition to ESMA and until one of the following dates:*

(a) where the Commission has already adopted an implementing act referred to in Article 25(6) of [EMIR] in relation to the third country in which the CCP is established and

that implementing act has entered into force, two years after the date of submission of the application;

(b) where the Commission has not yet adopted an implementing act referred to in Article 25(6) of [EMIR] in relation to the third country in which the CCP is established or where that implementing act has not yet entered into force, the earlier of the following dates: (i) two years after the date of entry into force of the implementing act; (ii) for CCPs that submitted the application after 27 June 2019, two years after the date of submission of the application; (iii) for those CCPs that submitted the application before 27 June 2019, until 28 June 2022.⁶⁷

However, **Article 311 on own funds requirements for exposures to CCPs that cease to meet certain conditions** would apply in case a TC CCP is no longer recognised under Article 25 of EMIR. According to the latter, where, following a public announcement or notification from the competent authority or from that CCP itself, it has become known that the CCP will no longer comply with the conditions for authorisation or recognition, as applicable, institutions shall, within three months of becoming aware of the circumstance referred to therein, or at an earlier time if the competent authorities of those institutions so require, treat their exposures to that CCP as a non-QCCP.

To sum up, if EU clearing members and clients would establish a subsidiary outside the EU to maintain access to Tier 2 CCP's services not to be recognised after any adaptation period, the higher capital requirements for exposures to a non-QCCP would apply within three months from the decision to de-recognise the CCP to provide those services. These higher capital requirements would apply for exposures related to the services that the TC-CCP is no longer recognised to provide, while the more favourable treatment for exposures to QCCP will continue to apply for exposures related to the services covered by the TC CCP recognition.

308.



309.



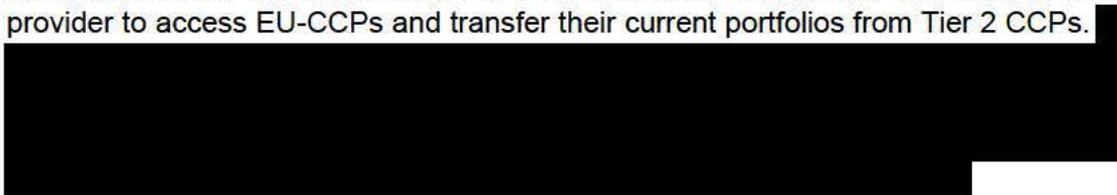
⁶⁷ The initial date of 28 June 2021 was extended until 28 June 2022, in accordance with Article 497(3), which allowed an extension only once.



- 310. This would render the EU clearing members less competitive than non-EU clearing members. Given that EU clearing members would pass on additional costs for these products to EU clients, one might also expect EU clients potentially to move to non-EU clearing members for clearing those products non subject to the clearing obligation. This would potentially further weaken the competitive position of EU clearing members.
- 311. Similar implications would also apply to EU clients considering establishing a subsidiary in the UK or another third country to relocate intra-group their positions on instruments subject to the clearing obligation.

Access to hedging and clearing market

- 312. In a scenario where non-EU counterparties currently clearing at Tier 2 CCPs would decide not to clear at EU CCPs, EU counterparties will have less choice in counterparties for hedging. EU counterparties will then be dependent on non-EU market makers with little opportunity for negotiations. Some respondents feared that some EU clients would have to exit the derivative markets (at least in the short term, until market dynamics may provide better access conditions to hedging and clearing services), leaving them with unhedged risk, which could in turn add to systemic risk.
- 313. In terms of access to clearing, most EU clearing members have already access to the EU CCPs where the clearing business from Tier 2 CCPs would relocate. For those who have yet no access, the EU CCPs noted that the onboarding process of new members could last from 3 to 9 months, while the set-up of a new client account can take only a few days.
- 314. However, in a highly concentrated markets with few clearing members providing client clearing services, EU clients might also have difficulties in finding a clearing service provider to access EU-CCPs and transfer their current portfolios from Tier 2 CCPs.





5.5 Implications for the supervisory framework for CCPs

TABLE 31. SUMMARY OF COSTS AND BENEFITS OF A NON-RECOGNITION FOR THE EU

Option		All positions relocate		Only new positions relocate	
		Neg. impacts (costs)	Pos. impacts (benefits)	Neg. impacts (costs)	Pos. impacts (benefits)
<i>Report section</i>					
Consequences for the CCP supervisory structure	Access to information	Relocation to third country T1 --	Relocation to EU +	Relocation to third country T1 --	Relocation to EU +
	Ability to intervene / Enforcement powers (BAU)	Relocation to third country T1 --	Relocation to EU +	Relocation to third country T1 --	Relocation to EU +
	Cooperation arrangements	Relocation to third country T1 --	NCAs (migr. to EU CCP) +	Relocation to third country T1 --	NCAs (migr. to EU CCP) +

Magnitude of impact as compared with the baseline scenario (the baseline is indicated as 0): ++ strongly positive; + positive; -- strongly negative; - negative; ≈ marginal/neutral; ? uncertain; n.a. not applicable

315. This section assesses the implications of a non-recognition of a UK CCP service for EU supervision of CCPs and for the capacity of the EU to identify, manage and mitigate risks stemming from CCPs. Since the costs and benefits of non-recognition depend on the location to which clearing relocates (to an EU CCP or to a recognised TC CCP outside the EU and the UK) the analysis includes an estimation of what a non-recognition of a UK CCP means for its tiering status, and for the tiering status of current non-UK Tier 1 CCPs. The migration scenarios of the introduction (section 5.1) are used, which identify CME Clear and ICC as US CCPs that may receive clearing volumes following a non-recognition of a UK CCP.
316. The analysis distinguishes between the following relevant elements of the EU's supervisory structure for CCPs: EU's supervisory capacity to access information, to intervene and enforce change, and the ability to coordinate with third country authorities. These are essential for EU supervisors/overseers to foster EU financial stability.

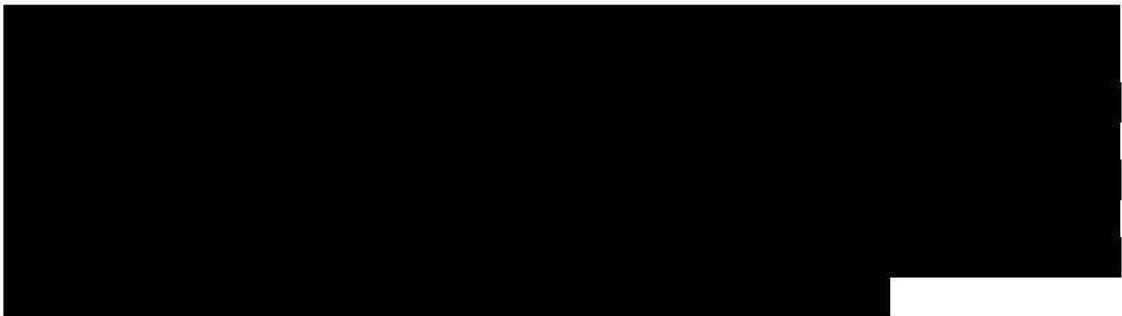
Impact of potential non-recognition on tiering of UK CCPs⁶⁹

317. Irrespective of whether clearing services migrate to other TC CCPs or to EU CCPs the impact of the migration on tiering of UK CCPs and thus on the possible impact on the supervisory framework with respect to UK CCPs need to be assessed.

318.



319.



320.



⁶⁹ As highlighted in recital 3 of the DA 2020/1303 "While the systemic importance of a CCP should be assessed in a holistic way, ESMA should take specific account of the proportion of the business of the CCP conducted in Union currencies, as well as the proportion of the business of the CCP originated from clearing participants established in the Union.". The business denominated in Union currencies of non-EU clearing members of a derecognized CCP service are still relevant for the indicators with respect to letters a) and b) of Article 6 of this DA as the size and nature of this business may be of such magnitude that a failure of the CCP could pose significant risks for the financial stability of the Union. It is noted, however, that despite meeting one of these indicators, ESMA may also conclude that the remaining business would not lead to a classification as Tier 2 CCP.

Supervisory framework under a migration of services to an EU CCP

321. The possibility to induce change and enforce corrective action over an EU CCP in the case that a TC CCP's service is relocated within the EU is immediate and direct without reliance on third country authorities. Currently, EMIR provides ESMA with broad supervisory and enforcement powers, thereby guaranteeing an EU-wide perspective on financial stability. In practice ESMA relies on cooperation arrangements and the effectiveness of procedures and processes of third-country authorities to assure the effective enforcement of decisions adopted by ESMA. This is less direct than the control of a local NCA on a CCP in its jurisdiction. The relocation of services to an EU CCP has immediate benefits of greater access to information for the local NCA and the ability to exercise direct supervision without the need to rely on third country authorities to enforce supervisory decision.
322. Cooperation is also expected to improve. Despite the possibility of local divergence among EU CCP supervisors, ESMA's role to ensure coordination and promote a common supervisory culture in EU CCP supervision and taking into account the cooperation within supervisory colleges and the CCP SC, ensures a high degree of convergence of EMIR supervisory practices and culture within the EU (see also chapter 6). EU authorities are expected generally to take EU financial stability concerns better into account than third country supervisors.
323. The migration of clearing volumes to EU CCPs would make these CCPs more systemically important at EU level, while supervision would be at NCA level. Given that clearing members and clients are located in several Member States this would also lead to an increased cross-border dimension and thus cross-border risks within the EU. Some EU bodies have called into question the adequacy of the current framework, given the smaller role of ESMA within the EU, compared to its role vis-à-vis third country CCPs. In a scenario where EU CCPs significantly grow in size, complexity, and cross-border dimension due to the derecognition of a Tier 2 CCP (service) these bodies question whether a more centralized approach with a greater role for ESMA would not be more adequate in such a scenario, and under which conditions (such as, e.g., a potential resolution fund replacing the current residual fiscal responsibility of a CCP's Member State of establishment).⁷⁰
324. These calls consider that a decisive advantage in having systemic important activities under the supervision of the European authorities is the coordination between EU authorities at national and EU level, both ex-ante under BAU conditions, as well as in emergency situations. The effectiveness of such coordination is supported by the

⁷⁰ See, for example, the welcome address by Fabio Panetta, Member of the Executive Board of the ECB, at the Third Annual Joint Conference of the Deutsche Bundesbank, European Central Bank and Federal Reserve Bank of Chicago on CCP Risk Management <https://www.ecb.europa.eu/press/kev/date/2021/html/ecb.sp210303~3a3d6522b0.en.html> as well as [Commissioner McGuinness way forward for central clearing \(europa.eu\)](#)

integration of the euro area and broader EU financial system, the interdependencies between EU financial institutions and the strong framework of cooperation established within the EU's regulatory structures. These structures make it more likely that the interests and viewpoints of EU national authorities would remain aligned, in particular in a crisis when the stability of the euro area financial markets is at stake.

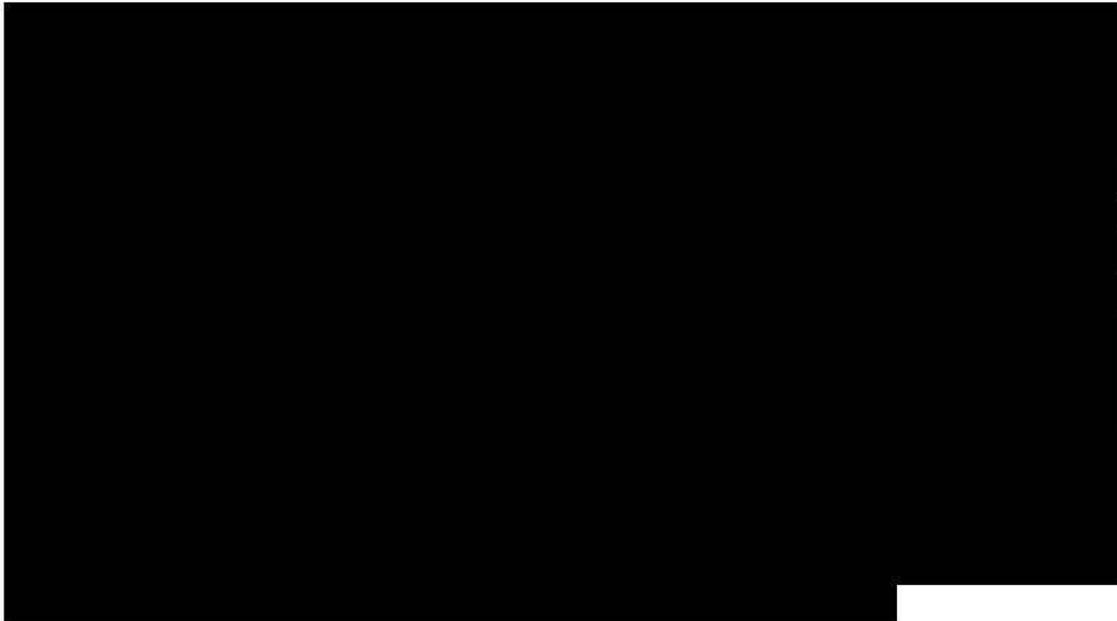
325. Table 31 reflects the perceived benefits of non-recognition in terms of greater and direct access to information, powers, and coordination in a direct supervision model as positive ('+') in case of a migration of clearing volumes to the EU.

Supervisory framework under a migration of services to a TC CCP

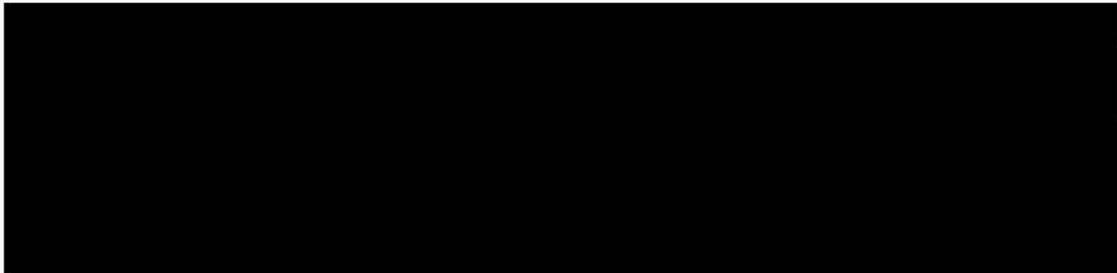
326. The implications to the supervisory structure, in case of a non-recognition of a UK CCP and clearing flows migrating to a TC CCP, depend largely on whether the TC CCP would still be a Tier 1 CCP or whether the migration of clearing volumes results in a reclassification of the Tier 1 CCP into a Tier 2 CCP.

Impact of migration on tiering of US CCPs

327.



328.



■ [Redacted text]



329.



ESMA and CBI information availability and powers for Tier 2 vs Tier 1 CCPs

330. The EU's capacity to access information and induce change where needed is much stronger for Tier 2 CCPs than for Tier 1 CCPs under EMIR. Table 32 compares the availability of information and powers to the ESMA and CBIs under the current regime versus the availability of information and powers for Tier 1 and Tier 2 CCPs. In case a CCP is classified as Tier 1, it is subject to an equivalence regime, where ESMA assesses the compliance with the Equivalence Decision, where relevant. A Tier 2 CCP needs to comply fully with the requirements set out in Article 16 and Title IV and V of EMIR. Moreover, ESMA has broad enforcement and direct supervisory powers to ensure ongoing compliance of the Tier 2 CCP with EMIR. In the case of a Tier 1 CCP, ESMA defers to a large extent to the third country supervisor that ensures the ongoing compliance with the Tier 1 CCP to the equivalent national regime. EMIR now requires ESMA to review the recognition of a Tier 1 CCP at least every five years.
331. Nonetheless, the mechanism of comparable compliance currently enshrined in Article 25a EMIR, in combination with a potential divergence of rules between the EU and the UK, could, however, weaken these powers for ESMA. For instance, regarding the definition of significant risk model changes, ESMA would be expected to, pursuant to Commission Delegated Regulation (EU) 2020/1304, defer to the definition of significant changes adopted by the third-country competent authority and would only check that the CCP has obtained an independent validation and a validation from its competent authority.

TABLE 32. SUPERVISORY INFORMATION AND POWERS PER TIERING CLASSIFICATION

	ESMA		CBI	
	Tier 2	Tier 1	Tier 2	Tier 1
Classification of TC CCPs	Tiering assessment		Consultation on tiering	
Recognition of TC CCP (and extension of services)	Assess compliance with the requirements set out in Article 16 and in Titles IV and V.	Assess compliance with the conditions of Equivalence Decision, where relevant	Consultation on potential recommendation to deny recognition Consultation on recognition on compliance with specific requirements (see 'Supervision') May impose specific requirements (incl. information requests)	Consultation on recognition and on potential recommendation to deny recognition
(Ongoing) Supervision & Review of recognition	(Direct) Supervision on an ongoing basis of the compliance with Articles 16 and Titles IV and V of EM R Enforcement powers General investigation power On-site inspection power	Deference to third country authority. Periodic review of recognition (min every 5 yrs) Limited enforcement powers MoUs may allow on-site visits in exceptional circumstances and with prior consent of competent authority	Consultation relating to ESMA decisions on Art. 41 (Margin requirements), 44 (Liquidity risk controls), 46 (Collateral requirements), 50 (Settlement), 54 (Approval or interoperability arrangements) Inform ESMA if specific requirements are no longer fulfilled. May request participation in on-site inspections and general investigations May impose specific requirements after recognition	Consultation related to periodic review of recognition

332. In the case of Tier 2 CCPs, ESMA must consult with the respective CBI on a wide range of topics before adopting a decision or granting authorization and the CBI may impose specific requirements. In the case of a Tier 1 CCP the involvement of CBIs is limited to a consultation on the tiering, initial recognition, review and/or withdrawal of recognition.
333. In a BAU context the tools available to ESMA, and the CBIs to induce change and enforce corrective action under the regime for Tier 2 CCPs at an EU-wide level are similar to those available to an NCA supervising EU CCPs in the case that a TC CCP's service is relocated within the EU. However, some important differences remain which relate to the need for ESMA to rely on cooperation arrangements, which are not legally binding, with third country authorities to assure the effective enforcement of decisions adopted by ESMA, whereas the NCAs have direct enforcement capabilities. This could be particularly critical in crisis situations (see section 5.6). In addition, ESMA is required to give notice to the third country competent authority if it wishes to conduct an on-site inspection.
334. This leads to the following conclusions about the EU's access to information and EU's powers in case of a non-recognition of a UK CCP and a migration to another TC CCP:
335. 

336.

[Redacted]

ESMA, NCAs and third country authorities' cooperation arrangements for US CCPs

337.

[Redacted]

338.

[Redacted]

339.

[Redacted]

The current Memorandum of Understanding (MoU) in place with US authorities refers to Tier 1 CCPs only. Hence, for a US CCP that is reclassified as a Tier 2 CCP to be able to continue to provide services in the EU it would necessitate the enhancement of the current MoUs to ensure that ESMA can enforce its adopted decisions in the US and exercise direct supervision over the US-domiciled CCPs.

[Redacted]



5.6 Supervisory capacity in EU in crisis/recovery/resolution events

TABLE 33. SUMMARY OF COSTS AND BENEFITS

Option		All positions relocate		Only new positions relocate	
Report section		Neg. impacts (costs)	Pos. impacts (benefits)	Neg. impacts (costs)	Pos. impacts (benefits)
Capacity in crisis, recovery & resolution	Timely access to relevant information	██████████	Relocation to EU + to third country 0	██████████	Relocation to EU + to third country 0
	Ability to intervene and limit risk for EU	██████████	Relocation to EU + to third country 0	██████████	Relocation to EU + to third country 0

Magnitude of impact as compared with the baseline scenario (the baseline is indicated as 0): ++ strongly positive; + positive; -- strongly negative; - negative; ~ marginal/neutral; ? uncertain; n.a. not applicable

340. A major CCP crisis, including the activation of recovery and resolution plans, requires EU authorities and CBIs to have access to relevant information and to be able to intervene in order to effectively perform their responsibilities and to contain financial stability risks. This section analyses whether the location of a CCP service in the UK, compared to the location of a CCP service in the EU, has an impact on timely access by EU authorities to relevant information and their ability to intervene effectively and quickly to limit risks for the EU. Based on the analysis, conclusions are drawn on whether a relocation of CCP services will bring costs and/or benefits to the EU from the perspective of managing a crisis, including recovery and resolution events. Here the analysis focuses on a relocation of IRD, CDS and STIR to the EU. The impact of a migration of clearing volumes to the US is also analysed and graded, given the particularities of the supervisory architecture and of the cooperation between EU and US authorities.

Timely access to information

341. Today, EU authorities have several pre-agreed procedures in place to obtain information in a crisis situation, in accordance with international standards and good practices:



- a. UK CCP global colleges chaired by the BoE:⁷⁴ ESMA, NCAs, and CBIs, through their participation, would be able to access crisis information according to the Multilateral Arrangement for Regulatory, Supervisory and Oversight Cooperation on LCH Ltd⁷⁵ and ICE Clear Europe⁷⁶. Regulatory cooperation under the arrangement includes the sharing of information on a business continuity event, member default, force majeure, market emergency or other non-business as usual event, which impacts the operation or resilience of the CCP. The information shared would include details of the emergency, actions likely to be taken by the BoE and/or the Tier 2 CCP, and details of any default protections exercised.
- b. UK CCP crisis management groups (CMGs) chaired by the BoE:⁷⁷ ESMA, NCAs, and CBIs, through their participation, would be able to access information about recovery and resolution information submissions by the Tier 2 CCPs, resolution planning options, information requirements and communication and cooperation. Also, the BoE is expected, to the extent permitted by UK laws, to alert the other authorities if the Tier 2 CCP were to encounter material financial or operational difficulties, take recovery actions, or were likely to enter the BoE's resolution regime, or were otherwise subject to a significant supervisory action. ESMA participates as an observer.
- c. Bilateral MoU between ESMA and BoE:⁷⁸ according to the bilateral MoU, ESMA is expected to be notified by the BoE about an emergency situation relating to a Tier 2 CCP, including developments in financial markets, which could have an adverse effect on market liquidity and the stability of the financial system in the Union or one of its Member States. The MoU states that the BoE should lead in an emergency situation, keep ESMA appropriately informed, and consult with and take account of the views of the other Authority to the extent possible.

d. 

⁷⁴ The BoE seems permitted under UK law to disclose confidential information relating to a CCP which it has received to, for example, any person for the purpose of enabling or assisting the Bank to discharge its functions, see the Financial Services and Markets Act 2000 (Disclosure of Confidential Information) Regulations 2001, Part II; <https://www.legislation.gov.uk/uksi/2001/2188>

⁷⁵ <https://www.bankofengland.co.uk/-/media/boe/files/memoranda-of-understanding/multilateral-arrangement-for-regulatory-supervisory-and-oversight-cooperation>

⁷⁶ <https://www.bankofengland.co.uk/-/media/boe/files/memoranda-of-understanding/multilateral-arrangement-for-regulatory-supervisory-and-oversight-co-operation-on-ice-clear-europe.pdf>

⁷⁷ See, for example, https://www.amf-france.org/sites/default/files/contenu_simple/accords_conventions/accord_multilateral/LCH%20Ltd%20Framework%20Arrangement%20among%20Crisis%20Management%20Group%20Members%20%28Arrangement%29.pdf

⁷⁸ MoU: https://www.esma.europa.eu/sites/default/files/lbrary/esma70-152-2531_esma-boe_mou_on_uk_ccps.pdf

- e. [REDACTED]
- f. MoU between ECB SSM and BoE/FCA:⁷⁹ this MoU provides for significant information sharing and cooperation on several aspects in relation to banks, including crisis management, including recovery and resolution.

342. While ex-ante information sharing arrangements for crisis events are in place, there is no certainty that EU authorities will indeed receive the necessary information in a timely fashion during a crisis. The MoUs listed above do not create legally binding obligations or confer any rights or supersede any domestic laws. They are merely declarations of intent by the parties, creating soft obligations. Therefore, the information sharing commitments are non-binding, on a best-effort basis, and rely to a significant degree on trust and the depth of the relationship between the UK and EU authorities. Global colleges and CMGs do not have legal personality, and understandings reached will not be legally binding or enforceable.

343. The scopes of the ESMA-BoE MoU and [REDACTED] are currently also limited to crisis management and do not yet cover recovery procedures or resolution. The ESMA MoU with the BoE is focused (logically at this point in time) on the supervisory powers under EMIR, [REDACTED]. For information on recovery and resolution, ESMA, NCAs, and CBIs will be dependent on the information shared through the CMG arrangements, [REDACTED]. It is expected that under the EU CCP recovery and resolution regime further information sharing arrangements will be concluded in connection with recovery and resolution planning for UK and other TC CCPs.

344. The uncertainty about access to timely and complete information during a crisis with a UK CCP presents a risk for EU financial stability, which could be mitigated through a non-recognition of Tier 2 UK CCPs to a certain extent. In case clearing volumes were to relocate to the US, it would most likely cause additional and worsened risks for EU financial stability as cooperation arrangements with US authorities exist only in regard of Tier 1 CCPs. [REDACTED]

⁷⁹ MoU: [Memorandum of Understanding between the ECB and the Bank of England and the Financial Conduct Authority \(europa.eu\)](http://europa.eu)

345. Therefore, in Table 30 the benefit of relocation is reflected as a ('+'), which would apply both in case all positions are relocated and when only new positions are relocated. However, where the result of such non-recognition would result in transactions relocating to another third country, the benefit of relocation may not materialise as the access to information by EU authorities will not improve. [REDACTED]

EU ability to intervene

346. The ability of EU authorities to intervene in a crisis situation relating to a UK CCP depends on several factors. These factors include: i) the powers of EU authorities to intervene in times of a crisis, including a recovery and resolution event; ii) the level of discretionary powers of the parties responsible for recovery (the respective UK CCPs) and resolution (the BoE); and iii) the extent to which interests of UK determining parties may diverge from the interests of the EU. These factors determine whether EU financial stability may be at risk due to crisis management in the UK, due to actions taken by UK CCPs and/or the BoE, which are not (fully) aligned with EU financial stability interests.

Powers of EU authorities to intervene in times of crisis

347. Intervention powers of EU authorities are limited since formal roles for crisis management are for UK CCPs entities. The responsibility for taking action under the recovery plan or rule book for Tier 2 CCPs lies with the respective CCP, and the responsibility for taking resolution action lies with the BoE. Also, as the recovery plan is based on ex-ante pre-agreed contracts at CCP level, it is currently not envisaged by Her Majesty's Treasury's (hereinafter the 'HMT') proposal that the BoE will be involved in the application of the recovery plan, however, some oversight and enforcement of implementation of recovery plans by relevant authorities is envisaged under the CPMI-IOSCO guidance on recovery.

348. More generally, the BoE can intervene in times of crisis through the provision of liquidity. [REDACTED]

349. ESMA and NCAs have no formal powers in times of crisis affecting UK CCPs. In relation to EMIR and emergency situations, the ESMA-BoE MoU specifies that cooperation and consultation is important in times of crisis, however, as noted before, this is an intention and not legally binding. Furthermore, the MoU specifies that the BoE is in the lead. Thus, the possibility for ESMA to intervene, beyond the forums that operate to share information and considerations in a crisis, is limited.

Level of discretionary powers of UK CCPs and BoE in times of crisis

350. The application of CCP recovery tools, and the allocation of losses under the rules of a CCP recovery plan, may lead to different placing of the burden among clearing members and clients, due to the preferences of the determinative party and to the type of tool used. The UK CCP's rulebook is agreed to by the clearing members to a CCP. Within the remits of the recovery plan the CCP may undertake its recovery actions as pre-agreed. No EU authority has any powers to influence the recovery plans of UK CCPs.
351. Whether discretion by the CCP in the allocation of losses is possible depends on how the recovery plans are construed. If the rules in a recovery framework are vague then they provide the opportunity for the CCP to apply the recovery tools in a manner that results in different treatment of clearing members. When Tier 2 CCP recovery plans set out a fully detailed allocation of the tools then the risk of direct allocation due to preference can be mitigated.
352. Examples of possible situations where the discretion of the CCP may impact some clearing members, but not all, relate to how the application of recovery tools, such as partial tear-up, VMGH and cash calls, are described in the rules:
- a. Where a rule book leaves room for the CCP to select the contracts to be subjected to partial tear-up following a member's default and an unsuccessful auction, the contracts to be tom up may only be contracts that are within the portfolio of the defaulter. If these contracts are more relevant to a subset of the clearing members than to the overall membership, then this subset will be facing more damaging imbalances in their risk positions, breaking of netting sets, and replacement costs.
 - b. Second, where the rule book leaves room for VMGH to be applied either per service or per currency of the contract, a disproportionate burden may fall on the relevant subset of clearing members.
 - c. Third, where the rulebook provides the opportunity for the application of cash-calls from clearing members and where the remits of cash-calls are not pre-agreed, any decision left for the time of crisis creates an uncertainty over the allocation of burden, for example if a clearing member knows it may face a cash call based on the last 3 days of its exposures, it may be able to proactively risk manage its portfolio and reduce its liability.
353. The current recovery plans of the CCPs differ in the level of discretion. As outlined in section 4.2, there is some level of discretion at ICEU, whereas the recovery plan for SwapClear prescribes a fully detailed allocation of recovery tools, mitigation and the potential allocation of losses due to preferences of LCH Ltd.

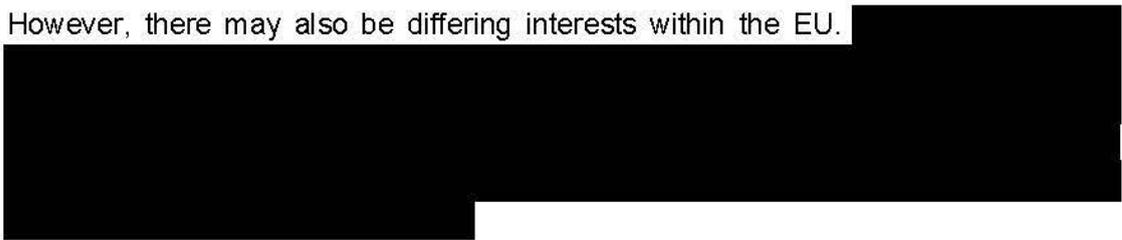
354. Discretionary powers of the BoE in resolution are prevalent, as in other resolution regimes. Since both the UK and EU adhere to international principles in relation to recovery and resolution the UK proposal seems not significantly different from the EU CCP recovery and resolution regime and it may be assumed that the Tier 2 CCPs will operate under a significantly similar regulatory regime, as compared to the regime for EU CCPs. Nevertheless, the HMT proposal was high level and hence the details of the envisaged approach in UK were missing at this stage. More details are provided in Box 7.
355. Similarly, for resolution planning the question is whether the application of CCP recovery tools, and how losses are allocated under the rules of a CCP recovery plan, may lead to different allocations of the burden among clearing members and clients, due to preferences of the determinative party. In this case, the determinative party is the BoE as resolution authority of UK CCPs. Under the UK resolution framework in the HMT consultation, the resolution authority (BoE) should be able to deviate from the CCP rulebook, though subject to the No Creditor Worse Off (NCWO) safeguard. The HMT consultation considers partial tear-ups as an essential tool to restore a matched book and proposes that the resolution authority in resolution have the ability to tear up a subset of positions, up to and including a complete tear up of all positions within the affected clearing service, at a commercially reasonable price and where the general approach would be established in advance so as to ensure the industry understands how any partial tear up will be conducted and how a partial tear up would occur in a fair, transparent and non-discriminatory manner.

Extent to which UK and EU interests may be aligned

356. HMT's consulting document for the UK resolution regime outlines its objective with regard to UK interests. The overall approach, according to the consultation, is to support the Government's priority to preserve the stability of the UK's financial system and the economy, and to ensure the UK remains a world leader in the regulation of clearing services. Comments from industry associations suggested, due to the global nature of UK CCPs, to include language in the UK's final framework that the UK Resolution Authority will have to have due regard to financial stability implications for third countries when resolving a failed CCP and to set out how UK authorities will cooperate with the respective foreign authorities in case of a recovery or resolution scenario of a CCP, either in the UK or abroad.⁸⁰ Whether and when the objectives will be adjusted in the final text is uncertain at this stage.
357. The UK's objectives may, at least partly, align with EU interests, as due consideration to non-UK interests, including EU interests, will strengthen the UK's credibility and reputation in global markets. The BoE's decision-making processes in crisis situations in principle may take the EU interest into account, given the relative weight of EU

⁸⁰ Please note Article 79 of EUCCPRR setting out principles for cooperation agreements for recovery and resolution.

clearing members in the market served by UK CCPs, when applying resolution tools such as partial tear-ups.

358. However, there could be cases in which a more specific segment of the market is considered in isolation. This is more relevant for SwapClear than for the other services, as it clears IRS in several EU currencies. One could think of a scenario in which the BoE could tear-up the contracts (or a portion thereof) in one or several of these EU currencies on the premises that they are less critical to the overall franchise of the CCP than other larger currencies such as EUR and USD. In this case, the degree of cooperation between the BoE and the authorities of the countries whose currency is concerned would be of major importance.
359. In the case of a non-recognition of a Tier 2 CCP service, and relocation of the clearing to the EU, interests may be more aligned within the EU. The position within the EU on competing interests between authorities is regulated under EU's CCP recovery and resolution regime, where, for example, competent authorities, resolution authorities and ESMA shall take account of certain principles and aspects when making decisions and taking actions under Regulation (EU) 2021/23 of the European Parliament and of the Council (CCPRRR), (Article 7 of CCPRRR), including, for example, the interests of the Member States where the CCP provides services and where its clearing members, clients and indirect clients, and any linked FMIs, are established.⁸¹
360. Cooperation between EU authorities is also regulated under Article 6 of CCPRRR. This Article states that competent authorities, resolution authorities and ESMA shall cooperate closely during the recovery phase and that the resolution authority of a CCP, and the resolution authorities of its clearing members shall cooperate closely with the aim of ensuring that there are no impediments to resolution.
361. However, there may also be differing interests within the EU. A large black rectangular redaction box covers the text of paragraph 361, obscuring the details of the differing interests mentioned.
362. While competing interests may still occur between EU national resolution authorities, a relocation may limit those conflicting interests as all national resolution authorities are regulated by the same regulatory framework. The framework contains explicit requirements on fair and equal treatment within the EU in relation to recovery and

⁸¹ Regulation (EU) 2021/23 of the European Parliament and of the Council of 16 December 2020 on a framework for the recovery and resolution of central counterparties and amending Regulations (EU) No 1095/2010, (EU) No 648/2012, (EU) No 600/2014, (EU) No 806/2014 and (EU) 2015/2365 and Directives 2002/47/EC, 2004/25/EC, 2007/36/EC, 2014/59/EU and (EU) 2017/1132 (Text with EEA relevance) (OJL 22, 22.1.2021, p. 1).

resolution. Also, national resolution authorities would need to defend their decision in EMIR colleges and at the CCP SC.

363. To conclude, the significant dependency on the Tier 2 CCP and on the respective third country supervisory (and resolution) authority(-ies) could challenge the ability of EU authorities to access relevant information on a timely basis and to intervene where needed. Third country authorities might intervene during crisis events by taking early intervention or resolution measures in the primary interest of the third country financial stability which may conflict with the interests of the EU, for example, by disproportionately calling on EU market participants. The multitude of jurisdictions with interests in the TC CCP could further complicate matters during a crisis. Losses could be direct financial costs or disruptions of another nature, such as an unbalance in netting sets and a replacement cost in the case of partial tear-ups. The allocation of a burden resulting from the application of recovery tools in accordance with the recovery plan may create a degree of uncertainty as to how EU participants of the CCP could be affected in a recovery situation. [REDACTED]

364. Therefore, the benefit of relocation is reflected as a ('+') in Table 33, which would apply in case all positions are relocated. When only new positions are relocated, the benefit is reflected as a ('+'), given that most of the clearing business would be unaffected. However, where the result of such non-recognition would result in transactions relocating to another third country, the benefit of relocation may not materialise as the EU ability to intervene will not improve. [REDACTED]

Box 8. UK RECOVERY AND RESOLUTION REGIME

The UK was one of the first jurisdictions to legislate⁸² and establish a CCP recovery and resolution regime, which pre-dates the Financial Stability Board (FSB) guidance.⁸³ The resolution of CCPs in the UK is regulated by the Banking Act 2009, which was extended to include CCPs.⁸⁴ The resolution of a Tier 2 CCP is under the control of the BoE, as the resolution authority for UK CCPs. The resolution regime gives the power (subject to appropriate legal constraints) to the BoE to step in if it determines that recovery will not be successful, to ensure that a CCP's critical functions are preserved while maintaining financial stability, avoiding that the costs of a failure and potential restructuring of the failing CCP would fall on taxpayers.

Under the current regime in UK, the BoE has the power to: (a) transfer to a private sector purchaser all or part of the CCP's business; (b) transfer to a bridge institution all or part of the CCP's business; or (c) transfer the ownership of the CCP to any person. The CCP's rulebook contains many of the additional tools the BoE would require resolving a CCP. However, the BoE would currently be limited by the parameters of the rulebook in how it could use these, which differ across CCPs and across CCP services.

In February 2021, HMT published a consultation *Expanded Resolution Regime Central Counterparties*, with the consultation period ending on 28 May 2021.⁸⁵

An expanded CCP resolution regime (as is the subject of the HMT consultation) would give the BoE additional powers to mitigate the risk and impact of a CCP failure and the subsequent risks to financial stability and public funds. These new powers are envisaged to help to better protect financial stability by enabling the BoE to take full control of a CCP when necessary and to use a number of tools *without reliance on the CCP's rulebook*. This would mean the BoE could take faster and more extensive action to stabilise the CCP than it can now.

The HMT consultation contains the proposal to include a provision to compensate CCP shareholders, creditors and clearing members if they are left worse off in a resolution than if the CCP were to fail (NCWO safeguard). This provides additional incentives for clearing members to continue to centrally clear, as well as incentivising the Bank to ensure it carries out its resolution actions responsibly.

Generally, the proposal seems broadly similar to the EU CCP recovery and resolution regime. However, the HMT proposal was high level and hence the details of the envisaged approach in UK were missing at this stage.

Sources: CCPRRR, HMT consultation on UK resolution regime, BOE.

⁸² The Financial Services Act 2012 extended the special resolution regime contained in the Banking Act 2009 to apply to CCPs.

⁸³ The Financial Stability Board (FSB) has consulted and issued guidance on how best to implement an effective CCP Recovery and Resolution (R&R) regime.

5.7 EU market development considerations

TABLE 34. SUMMARY OF COSTS AND BENEFITS

Option		All positions relocate		Only new positions relocate	
Report section		Neg. impacts (costs)	Pos. impacts (benefits)	Neg. impacts (costs)	Pos. impacts (benefits)
Market development (CMU)	Access to infrastructure		Relocation to EU + to third country 0		Relocation to EU + to third country 0
	EU's economic strength	Relocation to third country–	Relocation to EU +	Relocation to third country–	Relocation to EU +

Magnitude of impact as compared with the baseline scenario (the baseline is indicated as 0): ++ strongly positive; + positive; -- strongly negative; - negative; ≈ marginal/neutral; ? uncertain; n.a. not applicable

365. Finally, the cost-benefit analysis requires evaluating the need for an EU infrastructure from a market development perspective. This section analyses whether the relocation of a CCP service from the UK to the EU would bring costs and/or benefits to the development of the EU capital market union (CMU).
366. Pursuing the efforts started with the Treaty of Rome to put in place a true single market for capital, which was later intensified with the recognition of the free movement of capital in the 1992 Maastricht Treaty, the Commission launched in September 2015 the CMU initiative.⁸⁶ On 24 September 2020 the Commission adopted a new CMU action plan⁸⁷, setting four main goals: recovering from the COVID-19 crisis, operating a green transition and digital transformation, creating a more inclusive and resilient economy, and enhancing the EU's global competitiveness. Only a well-functioning, deep and integrated capital market can provide the scale of support needed to reach these objectives.
367. The latest CMU action plan of the Commission does not explicitly mention CCPs and does not include any reference to clearing infrastructures in general. Nonetheless, access to infrastructure for EU market participants is important, not only to promote fair competition within the CMU but also to ensure the smooth flow of money across the EU. The latest CMU action plan of the Commission mentions more explicitly the need

⁸⁴ Amendments to the Banking Act 2009 extended the UK's resolution regime for banks to include CCPs (although the regime takes a different approach to a CCP resolution in comparison to a bank resolution, reflecting a CCP's specific characteristics)

⁸⁵ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/962168/Expanded_Resolution_Regime_for_Central_Counterparties_-_Consultation_002_.pdf

⁸⁶ Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions, 'Action Plan on Building a Capital Markets Union', COM/2015/0468 final.

⁸⁷ Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions, 'A Capital Markets Union for people and businesses-new action plan', COM/2020/590 final.

to enhance the EU's global competitiveness, and it is even stated as an objective in the 2020 action plan.⁸⁸ This need for global competitiveness is highly interconnected with the need of economic strength as the former is of the utmost importance to enable the latter.

368. Therefore, conclusions are drawn based on whether a relocation of CCP services will bring costs and/or benefits to the development of the CMU from the perspective of the access to the clearing infrastructure and on the impacts on the EU's global competitive and economic strength.

Access to infrastructure

369. An efficient operating and well-regulated clearing and settlement system is vital for economic growth and financial market development in any advanced economy.⁸⁹ Access to safe and efficient clearing and settlement infrastructures, including CCPs, is thus a critical component of developing a market. But this access can be achieved in several ways. Indeed, clearing services can be provided in the EU by CCPs directly established in the EU, or by CCPs established in third countries, sometimes through the creation of a branch in the EU. In both scenarios, clearing services can and should be accessible by EU market participants.

370. Consequently, access for EU market participants to a CCP's services should be guaranteed regardless of whether the CCP is established in the Union or in the UK. As outlined in the description of scenarios that may impact EU financial stability, access to third country CCPs is not fully under the control of EU authorities. A systemically important UK CCP could discretionarily decide to restrict, suspend, or terminate access to EU clearing members and/or trading venues, for instance in case of supervened conflicts with regulatory requirements under UK law. This would probably entail the moving of clearing clients to non-EU clearing members, and thus an impact on the EU's market structure and development. Should relocation take place, ESMA could request the CCP to notify it prior to restricting, suspending, or terminating access to infrastructure, and therefore be better prepared to mitigate any negative externalities such a scenario would entail.

371. As a result, the impact of relocation on the access to infrastructure is reflected as a '+' in Table 34 which would apply both in case all positions are relocated and when only new positions are relocated.

⁸⁸ Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions, 'A Capital Markets Union for people and businesses-new action plan', COM/2020/590 final, 24 September 2020, page 5.

⁸⁹ European Union (EU). 2009. "Clearing and Settlement in the EU, Policy Department Economic and Scientific Policy." IP/A/ECON/EC/2009-001.

EU's global competitiveness and economic strength

372. The EU has a key interest to develop its financial markets' infrastructures, including its CCPs, and to increase their resilience "to avoid reliance on the provision of such critical services from third country jurisdictions".⁹⁰ The operations of a systemically important CCP within the Union itself, in opposition to the simple recognition of a systemically important CCP located in the UK, may increase its economic strength. This could be beneficial, as it is important to ensure that the EU financial sector be resilient and independent from discretionary measures taken in third countries, including the UK. However, also it is uncertain which part of the UK liquidity pool will move to the EU and which part will stay in the UK or move to the US. The latter will put EU market participants and clearing members into a disadvantaged position.
373. Additionally, should CCP services relocate to the EU, there is a possibility, however not a certainty, that liquidity in EU markets will increase, resulting in a general strengthening of EU financial markets. This strengthening would most likely translate into a better competitive position of EU CCPs compared to their global peers. However, this statement needs to be balanced with the fact that the non-recognition of a UK CCP (or some of its services) could reduce the global presence of certain European key market players. Furthermore, although it is likely that relocation would translate in a better competitive position of EU CCPs, the same holds for the contrary, i.e., migration of clearing volumes to other TC CCPs, which may lead to a strengthening of the competitiveness of these non-EU CCPs).
374. As a result, the impact of relocation to the EU on the EU's economic strength is reflected as a ('+') in Table 34, which would apply both in case all positions are relocated and when only new positions are relocated. However, given the negative impact on EU's economic strength in case of relocation to a third country, this is reflected as a ('-') in Table 34. Given the uncertainty about the EU's global competitive position, this element is not graded.

⁹⁰ Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions, 'European economic and financial system: fostering openness, strength and resilience', COM (2021) 32 final, 19 January 2021, page 12.

5.8 Conclusions on the analysis of costs, benefits, and consequences

TABLE 35. SUMMARY OF IMPACTS, COSTS AND BENEFITS

Option	All positions relocate		Only new positions relocate	
	Neg. impacts (costs)	Pos. impacts (benefits)	Neg. impacts (costs)	Pos. impacts (benefits)
Transfer cost	Strongly negative		Weakly negative	
Breaking netting sets, basis, and concentration impacts	Strongly negative for clearing members/Funds Marginal for other clients	Marginal	Strongly negative for clearing members/Funds Marginal for other clients	Marginal
Consequences for market participants	Strongly negative (all participants but EU CCPs)	Positive in case of a relocation to EU (for EU CCPs)	Negative to strongly negative (all participants but EU CCPs)	Positive in case of a relocation to EU (for EU CCPs)
Consequences for the CCP supervisory structure	Strongly negative in case of relocation to [REDACTED] third country T1	Positive in case of a relocation to EU	Strongly negative in case of a relocation to [REDACTED] third country T1	Positive in case of a relocation to EU
Capacity in crisis, recovery & resolution	[REDACTED]	Strongly positive in case of EU	[REDACTED]	Strongly positive in case of a relocation to EU
Market development	Negative in case of relocation to third country	Positive in case of a relocation to EU	Negative in case of relocation to third country	Positive in case of a relocation to EU

375. This section combines all identified costs, benefits, and consequences of a decision not to recognise LCH Ltd and ICEU for the provision of certain clearing services or activities. Table 35 presents an overall summary of the analysis carried out in the preceding sections. It evaluates how identified costs compare to the benefits for each of the three CCP services assessed to be substantial systemic importance, i.e., LCH Swapclear for IRS in EUR and PLN, and ICEU Credit and ICEU STIR for EUR. Since costs and benefits are quite comparable for the three services, they are not individually reflected in the table but discussed in detail below.
376. Overall, the main costs of a potential non-recognition relate to the cost for EU clearing members and clients to transfer their positions from the Tier 2 UK CCP to another authorised or recognised CCP, the cost of breaking netting sets and a potential 'basis' between liquidity pools, a deterioration of the competitive position of EU clearing members, and supervisory cost for EU authorities, specifically ESMA, in case EU clearing members and clients decide to migrate their clearing activity to another TC CCP, for example, a CCP in the United States.

377. The main benefits identified relate to reduced dependencies on the UK CCPs and UK authorities, a reduction of the dominant position of the Tier 2 CCP clearing services, and thus of the EU exposures towards the UK. The benefits concretely materialise in an important strengthening of the EU's capacity to obtain timely access to relevant information in times of crisis, including recovery and resolution events, related to a CCP, and to intervene effectively to limit risks to EU financial stability. Other benefits relate to strengthened supervisory coordination possibilities if clearing volumes move to the EU (see also Chapter 6), and opportunities to strengthen the CMU. Importantly, benefits are only realised to the extent that positions migrate to an EU CCP.
378. Although the balance between costs and benefits differs for each of the three CCP services that are identified as of systemic importance for the EUR currency area, the negative impacts of the costs for the EU for each of these services are evaluated as higher than the positive impact of the benefits at this point in time. The impacts are based on a thorough analysis of the substantial amount of collected data and information and on interactions with a comprehensive range of stakeholders.
379. The following paragraphs detail the costs and benefits for each of the three CCP services in more depth. As in preceding sections, the results of the analysis are based on the current market situation, while also taking a dynamic approach by considering different scenarios that could materialise in terms of migration of contracts in the short to medium term where possible.
380. As required by Article 25(2c), the analysis also considers two distinct cases: (i) the case where a non-recognition applies to outstanding and new derivative contracts, and (ii) the case where it would apply only to new derivatives contracts.
381. Finally, we consider the impact of different potential transition periods and the readiness of the market to relocate at the end of the temporary equivalence decision concerning the UK framework for the regulation and supervision of CCPs, and the temporary recognition decisions for LCH Ltd and ICEU, that both end in June 2022.

Balancing costs and benefits per clearing segment

LCH Swapclear

382. For LCH Swapclear, overall and at this point in time, the costs and negative potential consequences of a relocation of existing contracts, even assuming a transition period of up to two years, are found to exceed the benefits.
383. Transfer costs are expected to be substantial. For example, for a two-year transition period about half of the outstanding positions by notional amount for IRS in EUR would need to be moved to an EU CCP using switch trades, which are expensive, complex, and rely on third party intermediaries. Costs are estimated to be in a range of EUR 60 mn to EUR 0.6 bn for a two-year transition period for EU clients. For EU clearing members the cost range would be from EUR 0.5 bn to EUR 3.5 bn. Shorter

transition periods would significantly increase costs compared to longer periods, but costs would be substantial in all cases. In case of a shorter transition period EU market participants would be looking to switch quickly, resulting in additional costs from liquidity premia and increased third-country intermediary market power. Costs for the migration of PLN are similar, once their smaller market size is taken into account. Applying the relocation only to new positions reduces these costs significantly.

384. While transfer costs are 'one-off' costs, EU market participants will also face more structural costs from breaking netting sets, relating to the loss of cross-currency margining at LCH Ltd. As EU clearing members benefit substantially from cross-currency margining, they could face a maximum potential margin increase of 54 percent (EUR 10.6 bn). EU funds also face a large potential margin increase of 39 percent (EUR 5.1 bn). EU market participants less active in multiple currencies face lower increases, notably EU credit institutions active as clients (7 percent) and insurance companies (6 percent). Pension fund margins would remain almost unchanged. Potential benefits from cross-product offsets at Eurex Clearing appear marginal for most participants, as the directionality of positions limits offsets. This may change in case more participants move to Eurex Clearing with more balanced positions.
385. Potential costs from the existence of a basis could also be significant, though these could be partly mitigated by the relatively balanced positions of EU participants. The currently weaker liquidity at EU CCPs implies a significant dependency on market flows and, as a result, potentially substantial volatility on the spread between a UK and an EU CCP in the case of relocation from Swapclear. It would directly impact clearing members engaged in market-making activity who will lose access to SwapClear, though the volatility and size of the basis would also be reduced due to the relatively balanced directionality of EU clients. The costs and vulnerabilities related to a basis will importantly diminish in case liquidity at EU CCPs increases, for example, because non-EU market participants decide to clear in the EU.
386. General consequences for EU market participants are also negative for a relocation of existing positions. If clearing volumes would move to an EU CCP, EU CCPs competitiveness should improve from increasing economies of scale and liquidity rendering them more attractive. However, the competitive position of EU clearing members would significantly deteriorate. Clearing members would lose access to UK CCPs for IRS in EUR, as EU and non-EU clients may move clearing activities to other non-EU clearing members. This will hinder the broader ability of EU clearing members to compete in areas of client clearing and market making, potentially forcing them to exit markets. EU markets will become more dependent on non-EU market participants who maintain access to both SwapClear and other CCPs, introducing liquidity-related financial stability risks in times of crisis. Credit risk for EU clearing members may increase due to more concentrated markets.
387. The benefits of a relocation stem from an important reduction in dependencies, and related risks, and a reduction in the quasi-monopoly position of SwapClear for EU

currencies. Concretely, dependencies decrease towards Tier 2 CCPs and the BoE as supervisory and resolution authority. EU authorities will have increased supervisory and crisis management powers as NCAs and resolution authorities. ESMA would have a coordinating role among NCAs. Reduced reliance of EU market participants on financial markets outside the EU may contribute to financial stability in these currency areas, and support the implementation of monetary policy measures.

388. These benefits materialise in case of a migration of clearing volumes to an EU CCP, since this allows for greater access to information by NCAs, an increase in NCA's ability to supervise directly, enhance coordination within the EU, and EU authorities' ability to manage potential risks to EU financial stability. However, these benefits are contingent on a significant amount of clearing volumes migrating to an EU CCP. [REDACTED]

389. In a crisis, recovery or resolution event, a shift to EU CCPs offers strong benefits through a reduction of dependencies on the Tier 2 CCPs managing a recovery situation and/or the BoE handling a resolution event related to the Tier 2 CCPs. A shift allows the relevant EU authorities to intervene in a more effective, timely, and informed manner to protect EU financial stability. A non-recognition, following by a shift of clearing volumes to EU CCPs, may modestly support EU capital market development in the long term by minimising risks of a UK CCP's discretionary actions limiting EU access and an increase in the EU's economic sovereignty (though in the short and medium terms there would be short- and medium-term negative impacts, as set out in general consequences, on the competitiveness of EU clearing members).

390. The core trade-off for conclusions about Swapclear comes ultimately down to choosing between the benefits of greater risk pooling, efficiency and liquidity of maintaining participation in Swapclear, versus the benefits of increased supervisory oversight and crisis management powers. While the costs of losing access to the wider pool of clearing at Swapclear are tangible and will materialise with a high degree of certainty, the supervisory and crisis management benefits of a non-recognition, while potentially substantial in crises, recovery and resolution situations could be jeopardised if migrations were to a third country rather than the EU. For that reason, and in light of the detailed assessments above, we conclude that the costs of a relocation of IRS in EUR and in PLN from Swapclear outweigh the benefits.

391. Finally, the conclusions reflect the current situation and how costs and benefits would materialise following a non-recognition of SwapClear as per June 2022, suggesting that a full stop non recognition as per June 2022 may create potential systemic disruptions. A longer transition period, up to two years, will reduce transfer costs substantially. However, transfer costs remain significant and other costs remain largely unchanged. Hence, costs will still outweigh the benefits. It seems therefore warranted to, instead of a non recognition, reduce exposures of the Union to UK CCPs by other



measures, such as incentivising a voluntary transfer of EUR-denominated and PLN-denominated clearing volumes to EU CCPs and review the situation in due course.

ICEU CDS

392. For ICEU CDS a key finding is that the costs, benefits, and consequences of a non-recognition are highly dependent on where clearing volumes will migrate to.
393. In case of a migration to LCH SA, costs are considered higher than the benefits at this point in time. Transfers will be costly because the bulk of positions mature in more than two years and EU market participant may face liquidity challenges when transferring certain CDS contracts. Cost of breaking netting sets are expected to be lower than for SwapClear given that cross-currency margining opportunities are lower. The EU CDS market is more balanced, has wider bid-ask spreads, and shorter maturities than the EUR IRS market, so there will be a basis, however, lower than for IRS. A migration to LCH SA will bring benefits in the form of better access to timely information and substantially increased capacity in times of crisis, including recovery and resolution events at a UK CCP.
394. If EUR clearing volumes migrate to ICE NL or ICC, transfer costs are expected to be significantly lower, and as such change the balance between overall costs and benefits. Transfer cost would be relatively low, since ICE is expected to offer low-cost opportunities to transfer trades (i.e., some form a repapering). For ICC, supervisory cost will be high, however. Therefore, in case of a migration to ICC, we assess that costs would still outweigh the benefits. In the case of a migration of clearing volumes to ICE NL, costs and benefits may be much closer, because of the likely lower transfer costs and the benefits related to increased supervisory and crisis management powers in the EU. A non-recognition would still negatively impact the competitive position of clearing members.
395. It is difficult to predict to which alternative CCP EUR CDS clearing volumes will move. In case of a transfer to LCH SA and ICC cost outweigh the benefits, however, in case of a migration to ICE NL this is no longer evident. Given this uncertainty, a conservative conclusion would be that a non-recognition of ICE CDS at this point in time will most probably result in higher costs than benefits for the EU. A full stop non-recognition as per June 2022 is therefore not supporting EU financial stability. The uncertainty related to a potential migration of clearing volumes warrants a review of costs and benefits in due course.

ICE STIR

396. For ICE STIR, conclusions about the balance between costs and benefits depend highly on the transition period. [REDACTED] costs would be immaterial in case of a two-year transition period or by applying the relocation only to new contracts. Costs from breaking netting sets are also relatively low, as there are limited benefits currently from cross-currency margining at the ICE

STIR clearing service. Given the short maturities, basis cost will also be low. A non-recognition would still negatively impact the competitive position of clearing members, nevertheless, the impact would be limited given the smaller market. Also, a migration may move the full market to another CCP, which may increase the likelihood that clients move along with their EU clearing member.

397. Importantly, a migration from ICE STIR is expected to be either largely to ICE NL or to Eurex Clearing. Since the migration would be to an EU CCP, benefits will materialise in that supervisory powers will be strengthened, whereas costs will be low, with limited fragmentation, and low costs. [REDACTED]

[REDACTED] Since a full stop non recognition as per June 2022 would potentially create potentially systemic disruptions we conclude that at present the costs outweigh the benefits. However, this could change with a longer transition period (up to two years), given the rate at which ICE STIR products mature, which could lead benefits exceeding costs in due course.

Conclusions on the inclusion of outstanding contracts held at Tier 2 CCP

398. The analysis also shows that a potential non-recognition decision should include all outstanding contracts, unless the exclusion of outstanding contracts is temporary and accompanied by mitigating measures. A main reason is that EU clearing members may not be able to continue managing their legacy positions in the derecognised clearing segment, since they will be unable to enter into new contracts with the UK CCP for that segment. If the derecognition decision allowed EU clearing members to clear new trades for the sole purpose of managing and reducing their legacy exposures, then an exclusion of outstanding contracts could be envisaged. However, the costs and benefits of a potential non-recognition applying only to new contracts do not indicate that this would adequately support EU financial stability, unless the exclusion of outstanding contracts is temporary.

Conclusions on readiness of the market and transition period

399. Finally, this assessment shows that a potential non-recognition as per June 2022, or a shorter transition period, would be most disruptive for all three clearing services. Transfer costs would be at their maximum, as will be the cost of breaking netting sets and the basis. EU clearing members will have to start off-boarding as per March 2022, abruptly ending the market making business of EU banks. Clients of EU clearing members may take 'en masse' fast decisions to move to non-EU clearing members, disrupting EU clearing member business. EU CCPs may not necessarily be fully ready, which may increase the probability of a move of clearing volumes to more proven CCPs in Third Countries.
400. Having a longer period for market participants to adapt will reduce this cliff-edge effect. It will contribute to minimising costs of transfers, the basis, and other costs, such as loss of business for EU market participants. It would provide more time to incentivise a move to EU CCPs, for example, EU CCPs will be able to widen its product offering.



For ICEU STIR, the rapid maturation of most positions within two years and more liquid markets indicates that a transition period of two years would be feasible, whereas for SwapClear and ICEU CDS a longer transition period is needed.

6 Differences in risk mitigation measures for UK CCPs versus EU CCPs

401. This chapter elaborates on the different measures that the EU has available to mitigate risks in case of clearing services provided in the UK versus in the EU. It builds on the scenario analyses in sections 3.2 and 4.2 and on the cost-benefit analysis sections 5.5 and 5.6. The scenario analysis for LCH Ltd SwapClear and ICEU CDS and STIR, and how these services may impact EU financial stability, illustrate that ESMA's powers under the Tier 2 framework allow risk mitigation in UK CCPs as far as ESMA has powers for Tier 2 CCPs under EMIR. These powers may be considered mitigating factors in BAU events, however, ESMA's powers are currently limited in times of crisis, including recovery and resolution events.
402. In order to limit the negative impact of a crisis event concerning a CCP, ESMA could request that discretionary action is subject to ex ante information or consultation depending on the implications for the EU's financial stability. However, this will remain a non-binding power and Tier 2 CCPs would still be expected to follow with priority directives from their domestic supervisory authorities, aimed specifically at preserving the stability of the domestic financial system or other domestic interests in the UK, despite the impact they may have on EU financial stability. In such cases, ESMA could only take corrective action ex post depending on whether the action was legal under EMIR.
403. In case a CCP is located in the EU, the CCPs would be subject to the direct supervision of an EU competent authority within the supervisory framework set out by EMIR, which also covers the CCP recovery plan. NCAs are able to supervise domestic CCPs, including in situations where they may take the discretionary measures mentioned above, especially to provide ex ante guidance to EU CCPs, as EMIR is otherwise silent on this topic. Furthermore, EU competent authorities are required to share information with EMIR supervisory colleges, which include ESMA and the relevant CBIs, including in emergency situations. Consultations and coordination within EMIR supervisory colleges and the ESMA CCP SC contribute to making competent authorities more aware of the potential concerns of authorities from other Member States or EU-level authorities. ESMA's role to foster enhanced coordination and promote a common supervisory culture in EU CCP supervision aims at mitigating risks of divergence between national competent authorities. In emergency situations, Article 18 of Regulation (EU) No 1095/2010 of the European Parliament and of the Council (hereinafter the 'ESMA Regulation')⁹¹ provides that ESMA should facilitate, and coordinate actions undertaken by national competent authorities.
404. In the case of resolution, Tier 2 CCPs are subject only to their domestic resolution regime and to the control of their domestic resolution authority. EU authorities have no

⁹¹ Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC (OJL 331, 15.12.2010, p. 84).

control over the resolution actions. International standards provide for the institution of crisis management groups (CMGs) for CCPs considered of systemic importance in more than one jurisdiction, and the BoE, as the UK's resolution authority, has established CMGs for both Tier 2 CCPs, in which relevant EU authorities participate, including ESMA and the ECB. However, the role of CMGs is limited to the coordination of resolution planning and resolvability assessment, and cooperation and information sharing during a crisis: the home resolution authority is the only decision-maker when a CCP is put in resolution.

405. In contrast, EU CCPs are subject to the EU CCP resolution regime and to the decisions of EU national resolution authorities once proceedings begin. Moreover, decisions by national resolution authorities are to be taken in accordance with a predefined resolution strategy and plan which is subject to the review of the resolution colleges, involving all relevant EU national authorities. The to-be-established ESMA Resolution Committee will promote convergence among resolution plans and mediate disagreements on the resolution plans.
406. Based on the above, risk mitigation measures are considered more comprehensive for EU CCPs than for UK CCPs. More effective powers are available, especially in times of crisis, including recovery and resolution events. As such, a non-recognition may bring benefits to EU financial stability as outlined in the analysis of costs, benefits, and consequences in Chapter 5, in case clearing volumes relocate to the EU. Nevertheless, there may still be challenges within the EU in times of crisis. It is also well possible that EU supervisors have less leverage on the remaining clearing activities at UK CCPs in case of a non-recognition. [REDACTED]
407. Within the EU, CCPs are subject to the directions from its NCA in times of crisis. Despite coordination arrangements, interests may not always be aligned with one EU NCA putting strong emphasis on the soundness of its national CCP and other EU NCAs focusing on the soundness of their national EU clearing members. Even though ESMA has explicit coordination responsibilities, when facing extreme financial distress at a CCP and/or market participants, difficult choices will need to be made, which may put strains on the framework.
408. These challenges may become more prevalent in case of a non-recognition of a UK CCP. Cross-border risks within the EU will significantly increase when services migrate to EU CCPs. EU CCPs are increasingly interconnected with each other and other FMIs directly through interoperability arrangements or cross-border membership of EU banks in EU CCPs. Whereas the EU CCP resolution framework provides for a cooperation and coordination among relevant authorities, the national resolution authorities continue to play a central role. In the case of a failure of clearing member that is subject to the direct supervision of the ECB it is the SRB that is tasked with a central role and a resolution fund has been created as a last resort to avoid recourse to public funds. [REDACTED]



7 Conclusions on the recognition of the assessed CCPs

409. Article 25(2c) EMIR provides that ESMA may, on the basis of a fully reasoned assessment, conclude that a CCP or some of its clearing services are of such substantial systemic importance that that CCP should not be recognised to provide certain clearing services. After the issuance of a recommendation by ESMA, the Commission may, as a measure of last resort, adopt an implementing act specifying that some or all of the clearing services of the involved CCP can only be provided to clearing members and trading venues established in the EU after the CCP has obtained authorisation under EMIR.
410. Based on information provided by LCH Ltd and ICEU, other relevant information, and the methodology for assessing third country CCPs under Article 25(2c) EMIR, ESMA has concluded that the following clearing services are currently of substantial systemic importance for the financial stability of the EU or one or more of its Member States: LCH Ltd SwapClear for products denominated in EUR and PLN, ICEU CDS for products denominated in EUR, and ICEU STIR for products denominated in EUR. These three clearing services fulfil a critical function to the EU that creates dependencies of the EU on the respective CCPs offering these clearing services.
411. For what concerns LCH Ltd SwapClear, the assessment finds that in a systemic crisis, a failure of SwapClear could reverberate throughout the EU with potentially large losses, impacting a broad range of actors, including EU banks, EU pension funds and insurance companies, and EU companies hedging their interest exposures through SwapClear. Additionally, feedback loops could occur with a substantial impact on monetary policy implementation in the euro area. Furthermore, as described in more detail throughout the Assessment Report, the lack of supervisory and crisis management powers, including powers in case of recovery or resolution of LCH Ltd, exposes the EU to risks, notably in case of discretionary measures taken by the CCP and/or the BoE. In a BAU scenario, although unlikely, a termination of access to EU clearing members may disrupt trading in IRD, with financial stability implications for the EUR and PLN currency areas.
412. For what concerns the two identified clearing services provided by ICEU, the assessment finds that the CDS segment of ICEU has a significant market share in euro-denominated CDS with strong dependencies for the largest active EU clearing members. In a systemic crisis, EU clearing members would be subject to substantial pressures. With respect to ICEU's F&O segment, the assessment finds that the euro-denominated STIR derivatives are instruments of importance for the monetary policy of the euro area and as such are at the nexus of the EU financial system. Large EU clearing members are active in this market segment and their credit and liquidity exposures are important, so that it cannot be safely assumed that liquidity buffers will be available during a crisis. As described in more detail throughout the assessment report, for both ICEU CDS and ICEU STIR, the contagion paths through which these clearing services could affect EU financial stability are similar to the paths for LCH Ltd, except in case of recovery, where the risks are even higher.

413. Based on the comprehensive and holistic evaluation of the six elements that were identified in the methodology as relevant for the technical assessment of the costs, benefits, and consequences of a decision not to recognise a CCP to provide certain clearing services, ESMA has concluded that the costs of a decision to not recognise the three clearing services mentioned above would at this point in time outweigh the benefits. Against that background and in the current circumstances, ESMA does not find that the involved CCPs should not be recognised to provide these clearing services. Accordingly, in line with the procedure of Article 25(2c) EMIR, ESMA does not recommend that the Commission adopt an implementing act specifying that the involved CCPs should not be recognised to provide the three clearing services identified above.
414. To reduce (i) the substantial systemic importance of LCH Ltd SwapClear, ICEU CDS, and ICEU STIR for the financial stability of the EU or one or more of its Member States and (ii) the identified risks and vulnerabilities linked to the recognition of these clearing services, ESMA is of the opinion that the adoption of appropriate measures and safeguards to mitigate risks should be considered. Given the significance of the risks caused by the lack of supervisory and crisis management powers in times of distress and the size of the exposures of EU clearing participants as explained above, ESMA should after an appropriate period review the clearing services that have been assessed in the assessment against whether introduced measures and safeguards have achieved the desired mitigating effect.

Adopting appropriate incentives

415. With a view to reducing the size of the EU's exposure to Tier 2 CCPs, ESMA suggests that relevant EU authorities should consider how the exposures of EU clearing participants or EU clients to Tier 2 CCPs may be reduced through the establishment of appropriate regulatory and supervisory incentives (e.g. through the adoption of requirements for alternative clearing arrangements for clearing members or clients, or appropriate prudential requirements). The relevant EU authorities should also consider the implications that such regulatory and supervisory incentives may have, including on the potential direction of the migration of clearing services from Tier 2 CCPs to EU CCPs.

➤ It is suggested that relevant EU authorities consider adopting appropriate incentives for reducing the size of the EU's exposure to Tier 2 CCPs.

Revising the framework for comparable compliance

416. ESMA can recognise Tier 2 CCPs only if they are compliant with Article 16 (capital requirements), Title IV (requirements for CCPs, including organisational, conduct of business, and prudential requirements), and Title V (requirements on interoperability arrangements) of EMIR. The mechanism of comparable compliance entrenched in Article 25a EMIR enables these CCPs to be deemed compliant with these provisions

through compliance with the comparable requirements applicable in the relevant third country.

417. As highlighted in section 5.5 and chapter 6 of the assessment report, this comparable compliance mechanism does not provide ESMA with the appropriate tools to fully assess compliance with EMIR as Commission Delegated Regulation (EU) 2020/1304 (the 'Delegated Act on Comparable Compliance')⁹² does not allow for any flexibility by ESMA to take into account the degree of the systemic importance of the Tier 2 CCP that is being assessed.
418. Furthermore, it cannot be excluded that the application of comparable requirements may lead in practice to different supervisory outcomes. In this regard, there is some ambiguity, as EMIR does not make it explicitly clear that the granting of comparable compliance to a Tier 2 CCP is not limiting or voiding ESMA's supervisory and enforcement powers over the Tier 2 CCP in respect of the EMIR-requirements for which the Tier 2 CCP has been deemed comparably compliant through compliance with the relevant third country requirements. It should be clarified that, in this situation, ESMA is still competent to take action, especially in case of urgent need or vastly different supervisory outcomes under both regimes.

➤ It is suggested that the mechanism of comparable compliance set out by Article 25a EMIR be revised to mitigate the concerns expressed above.

Expanding ESMA's supervisory and crisis management toolbox

419. Further, with a view to remedy the lack of supervisory and crisis management powers during a crisis, including in a recovery and resolution scenario, it is suggested that ESMA's powers be expanded so that the risks pertaining to these events may be better captured. Even if the likelihood of such events could be deemed low, their impact could be systemic and ESMA is of the view that the establishment of a clear and comprehensive toolbox for times of distress would bolster the preparedness of CCPs and would provide authorities with the powers to prepare for the potential recovery and resolution of a CCP and deal with the fallout of the declining health of a Tier 2 CCP in a coordinated manner, thus contributing to the smooth functioning of EU financial markets.
420. Even though EMIR 2.2. entrusted ESMA with enhanced powers towards CCP risk management, ESMA deems it necessary to ensure that a new framework provides appropriate tools for addressing the cross-border systemic risks of TC CCPs accessed by clearing participants established in the EU. In this regard, as highlighted in the assessment, the limited reach of EU authorities over TC CCPs puts EU clearing members in a delicate position during a crisis, including recovery and resolution.

⁹² Commission Delegated Regulation (EU) 2020/1304 of 14 July 2020 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council with regard to the minimum elements to be assessed by ESMA when assessing third-country CCPs' requests for comparable compliance and the modalities and conditions of that assessment.

Sections 3.3., 4.3. and 5.6. of the Assessment Report highlight several deficiencies in this respect.

421. Currently, a Tier 2 CCP must comply only with Article 16, Title IV, and Title V EMIR to be able to be recognised. In contrast, there is no corresponding obligation in respect of CCPRRR-requirements.

➤ It is suggested that it be examined to what extent can Tier 2 CCPs be required to directly comply with all or part of the provisions embedded in CCPRRR.

422. ESMA notes that discretion of CCPs over recovery plans should be limited so that these rulebooks contain greater detail, enabling EU clearing members to better prepare. Notably, as mentioned in section 4.3 of the assessment report, possibilities for discretionary intervention are available for TC CCPs, which could have a negative impact on EU market participants and EU financial stability. Discretionary measures that would be unduly costly for EU clearing members should be averted to better ensure that EU clearing members are treated in a fair and non-discriminatory manner.

➤ It is suggested that ESMA be granted an approval power with respect to recovery plans for Tier 2 CCPs.

423. In addition, also in the event of resolution, discretionary measures could be adopted, this time by the third country resolution authority. These measures could have a severe negative impact on EU financial stability. For instance, the Bank of England could decide to terminate access of an EU bank to a third country CCP that is under resolution. ESMA notes that it has no ex-ante intervention powers to mitigate the risks that such measures could have on EU financial markets.

➤ It is suggested that ESMA be consulted by third country authorities before they validate the resolution plan of a Tier 2 CCP and, more generally, before they adopt, in the context of the resolution of a Tier 2 CCP, any measures that could potentially have an adverse impact on EU market participants.

424. However, an ex-ante notification or consultation does not fully mitigate the risk that a decision from a third country authority may be detrimental to EU financial stability, its Member States, or its currencies. As underscored in section 5.7, access for EU market participants to infrastructure is crucial. Even if ESMA is granted consultation powers for recovery and resolution events, it cannot eliminate all risks linked to discretionary measures that could still be adopted by third country resolution authorities or CCPs. Therefore, in addition to the abovementioned measures, ESMA notes that improving possibilities for actions would be necessary to better mitigate risks, notably by focusing on measures targeting access for EU clearing members.

- It is suggested that ESMA be granted the power to request from Tier 2 CCPs and third country resolution authorities to be notified prior to imposing any restriction, suspension, or termination of access to EU clearing members.

Enhancing cooperation

425. Finally, the mitigation of systemic risks during a crisis, including in recovery and resolution, presupposes the swift exchange of information. In this context, ESMA notes that continued trustful cooperation with the Bank of England is of the utmost importance. Several existing cooperation agreements and crisis management groups have already been put in place between EU authorities and the Bank of England. However, they do not tackle recovery and resolution. New agreements covering these topics are expected to be concluded between NRAs and the Bank of England pursuant to CCPRRR, but not with ESMA as that Regulation does not contain a clear mandate to do so. ESMA and Bank of England therefore do not have the forum to consult each other where EU and UK CCPs draft their respective recovery plans.

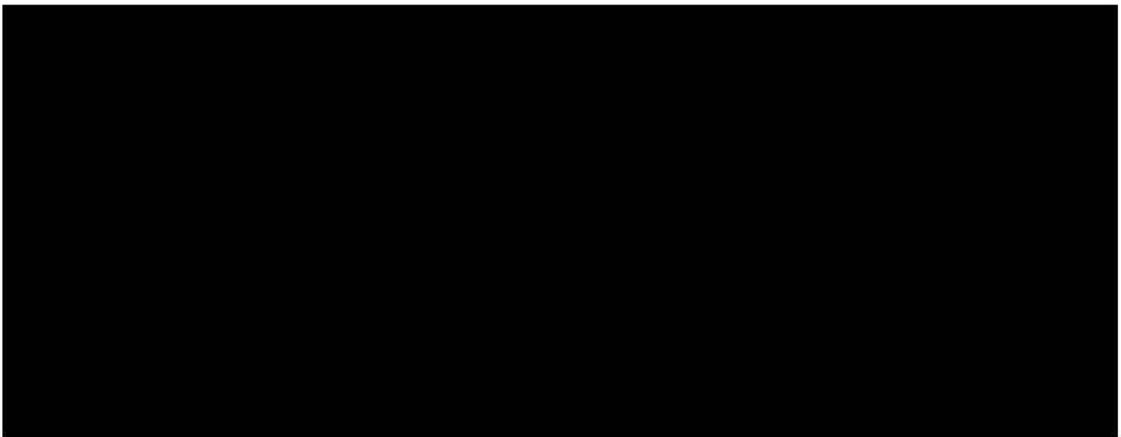
- It is suggested that a new mandate be included in CCPRRR to provide ESMA with the possibility to negotiate a new MoU with the Bank of England on recovery and resolution.

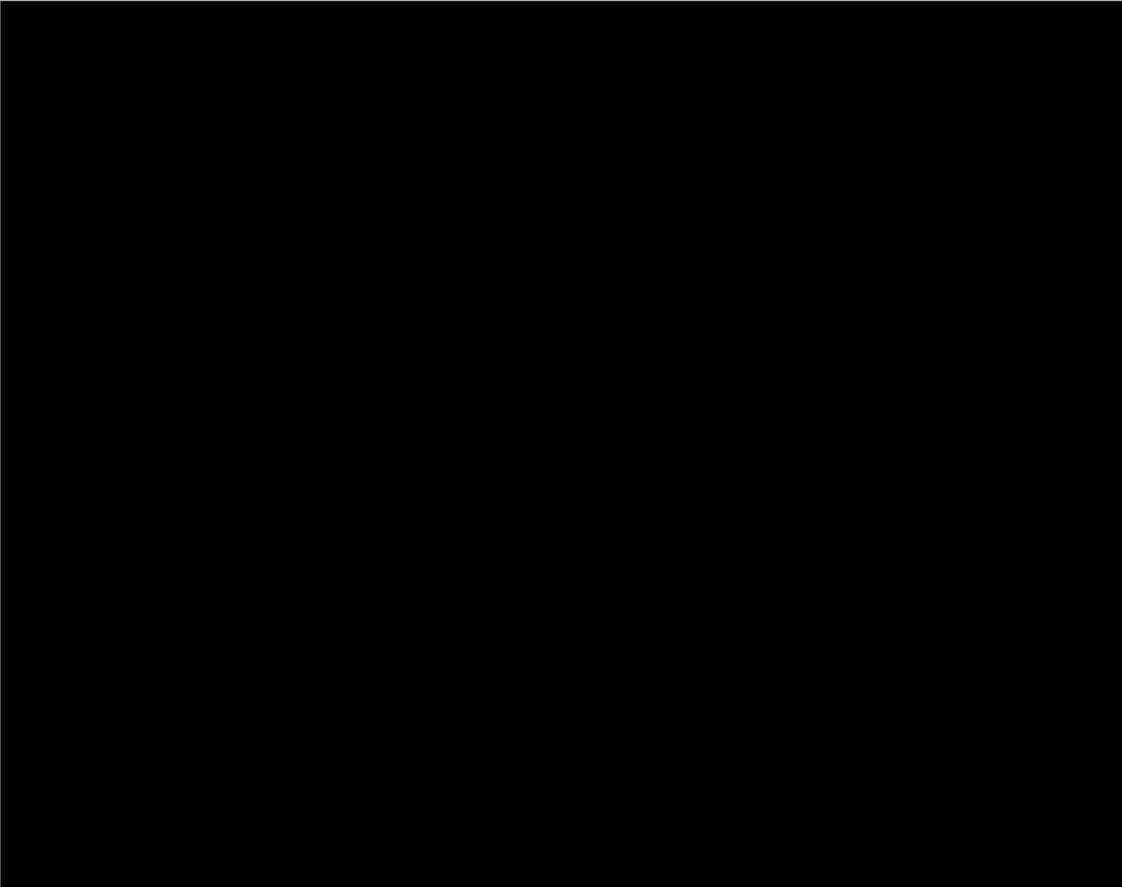
**Annex I. LCH Ltd Assessment against the Tiering Thresholds of
DA 2020/1303**

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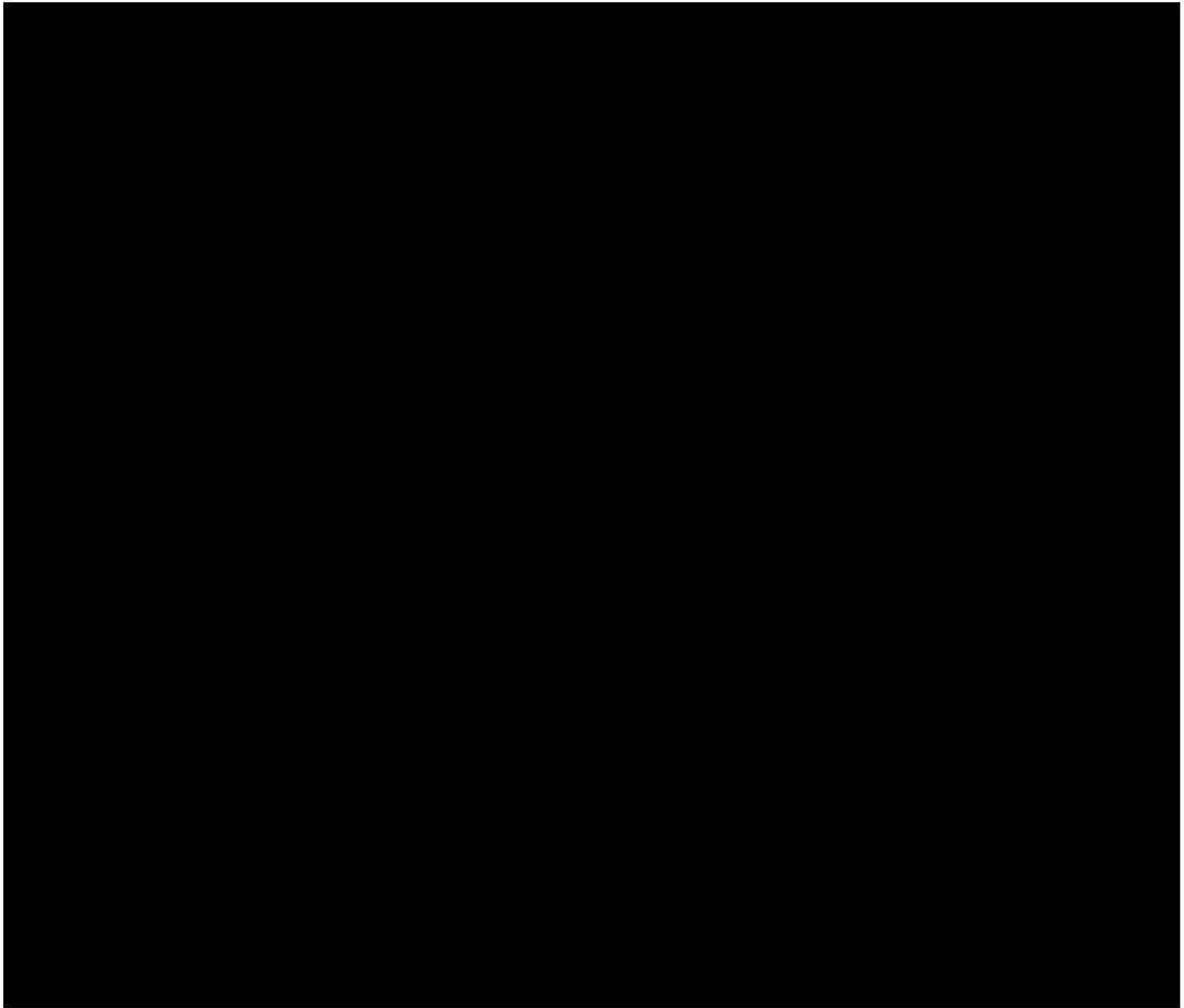
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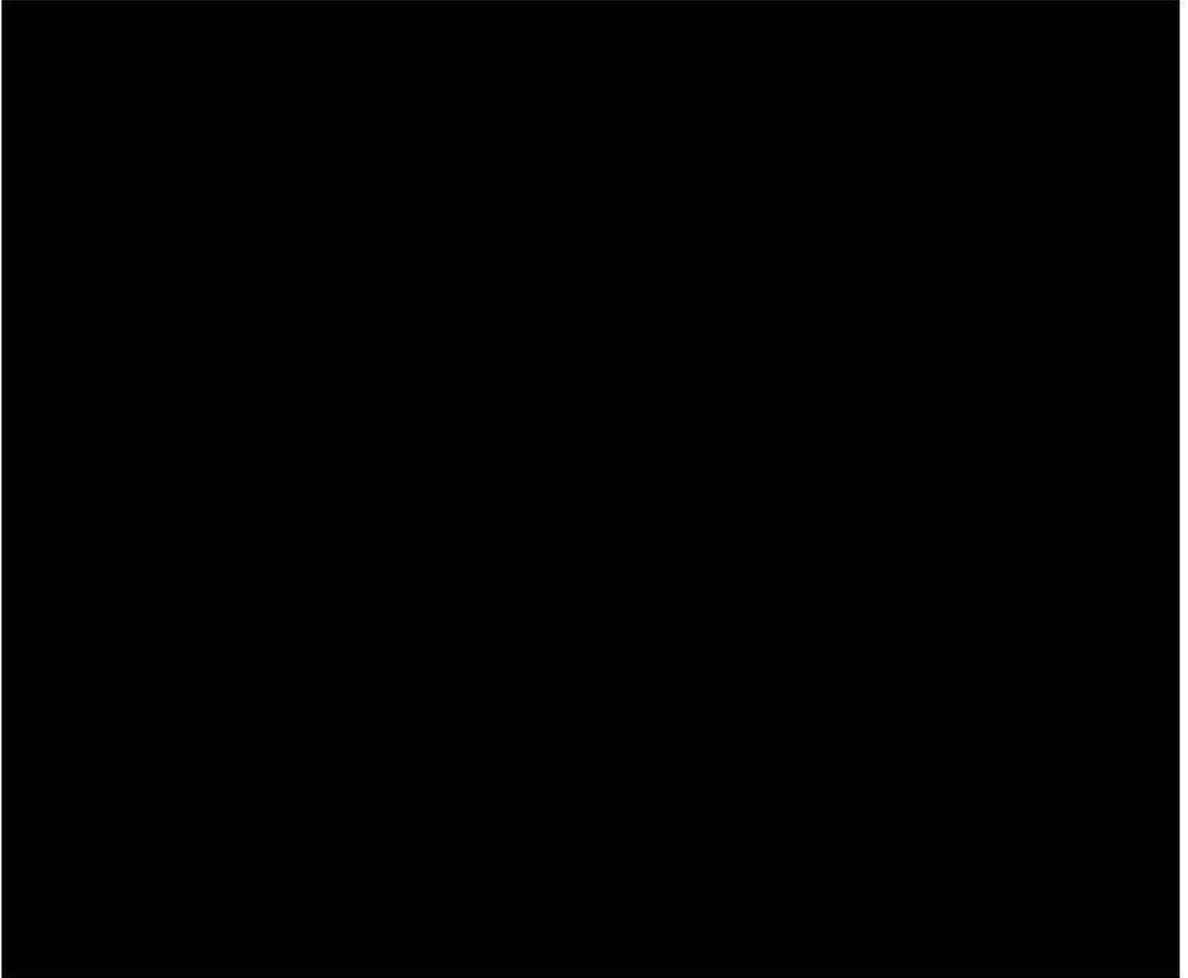


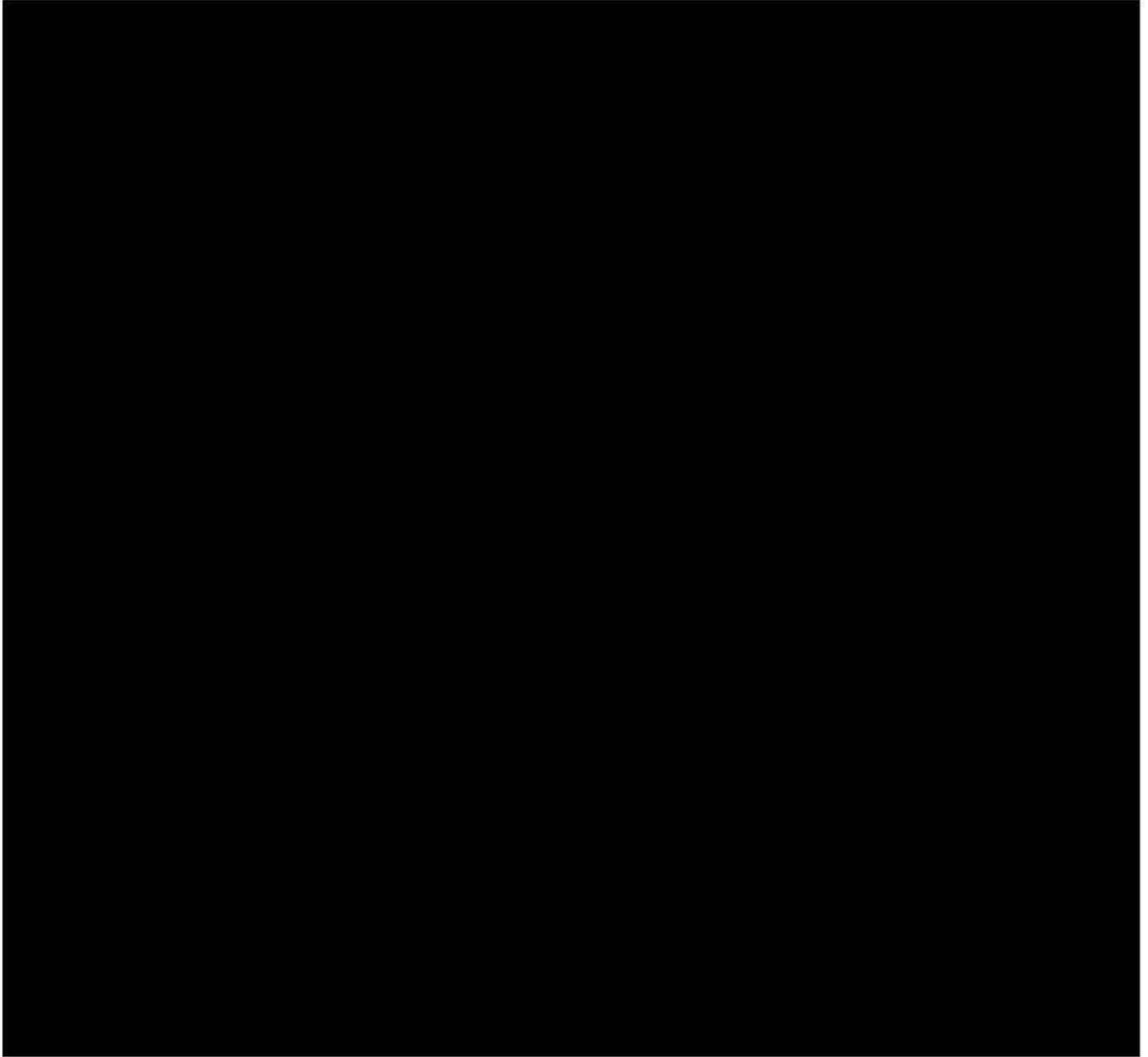


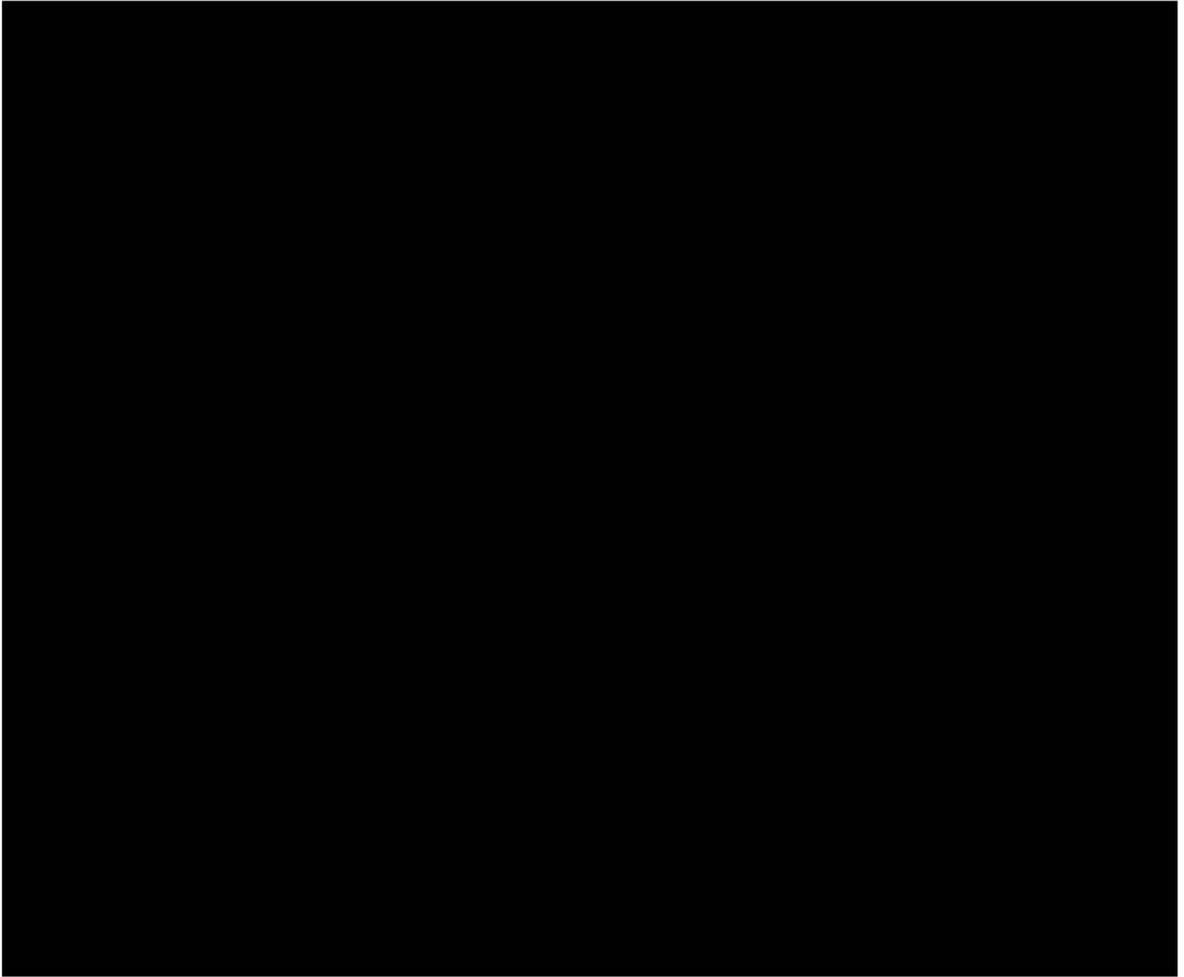


Annex II. Tables per Currency Area – Swapclear









**Annex III. ICEU Assessment against the Tiering Thresholds of
DA 2020/1303**

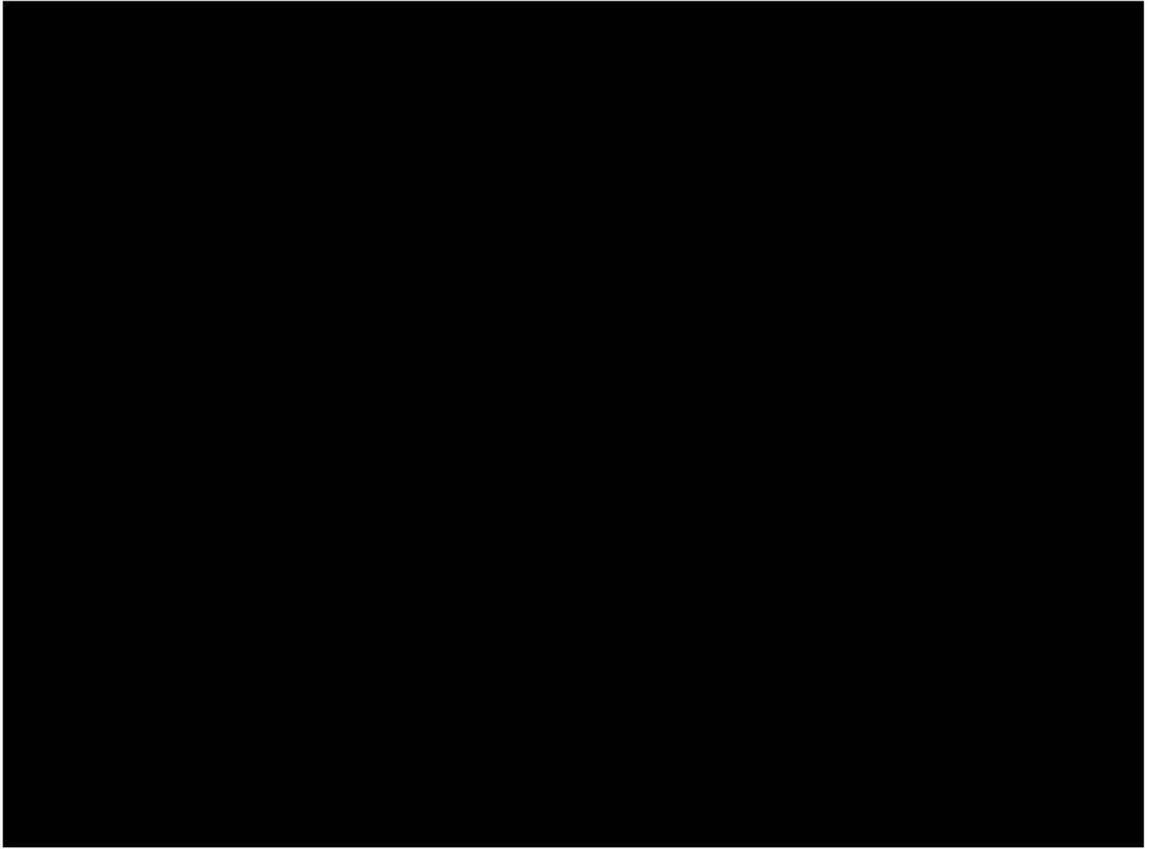
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Annex IV. Transfer cost estimation

430. This Annex explains how the estimate of transfer costs for EU clients was carried out. This estimation was done on the basis of 8 client transfers relating the size of transfers of IRS in EUR from LCH Ltd to Eurex Clearing in notional amounts outstanding with the aggregate one-off costs incurred. Given data was only received for transfers carried out for clients, this modelling was only used to estimate transfer cost for EU clients.
431. To infer a simple cost relationship, a regression was carried out, which after some data exploration was of the log of the aggregate one-off costs on the log of the notional amounts. This approach, in addition, to giving a better fit than simpler alternatives, such as a linear regression, ensured that the relationship satisfied some intuitive properties, namely, that costs increase with the size of the transfer, one-off costs tend to zero as the size of the transfer tends to zero, and that as the size of the transfer grew the marginal costs of the transfer fell, indicating that transfers become more efficient as the size of the transfer grows. Figure 41 below shows the relationship and the regression equation for the logged data points, and the implied cost relationship on the right. Table 42 presents the regression statistics.

FIGURE 41. THE REGRESSION EQUATION AND INFERRED RELATIONSHIP

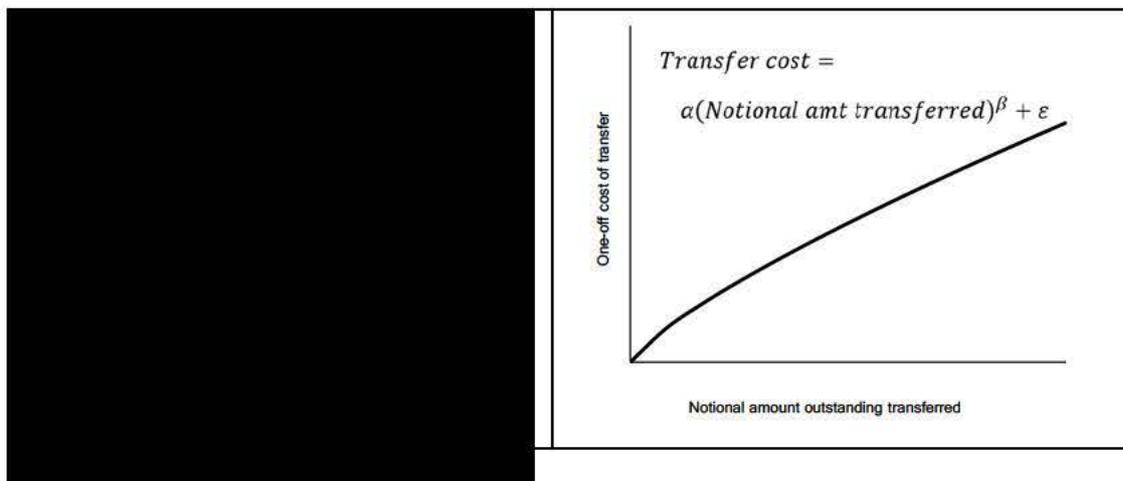


TABLE 42. LCH SWAPCLEAR STATISTICS FOR NOK

Regression Statistics	Estimate	Std. Error	t value	Pr(> t)	Significant at
Intercept	-5.5238	6.6194	-0.834	0.436	Not significant
LOG_NTL_AMOUNT	0.7842	0.2788	2.813	0.0306	5% level
Residual standard error: 1.292 on 6 degrees of freedom				Multiple R-squared: 0.5688	
Adjusted R-squared: 0.4969				F-statistic: 7.915 on 1 and 6 DF	
p-value: 0.03062					

432. The regression statistics are not ideal, which is due to the small sample and also due to one respondent reporting disproportionate costs in comparison to the other respondents (an outlier marked in red in the Figure above). Removing this outlier improved the regression results significantly (R squared increased to 0.77, significance

levels fell). However, it was decided not to use this regression because it gave lower cost estimates, reduced the standard error of the estimated coefficients, and so gave narrower bands for the upper and lower cost estimates (which were based on 95% confidence intervals). Instead, it was decided to use the more conservative model because it used all the data provided, including the outlier which may well capture a transfer with some qualitative differences that made it more costly.

433. So, while the analysis can certainly be criticised for the weakness of the regression statistics, it was felt that the method still provided the best approach for inferring a relationship for one-off costs with the limited data provided. By using the model with more conservative results (higher cost estimates and larger bands between upper and lower cost estimates) it was also a more cautious approach, which was important given the limited data received.
434. In the next step, this cost model was applied to calculate aggregate costs at the lower, median and upper cost estimates, using the residual maturity distribution for EU clients, measured using distributions of remaining time to maturity of EU-held contracts with LCH Ltd on 12 December 2020, as reported to TRs and ESMA under EMIR. A scaling factor for EU clients – i.e., a proportion of notional amount outstanding held by EU clients – was also constructed by comparing the share of notional amounts reported between EU counterparties and EU clearing members relative to that held by EU clearing members by LCH Ltd. This scaling factor was applied to the distributions of notional amount when inferring the one-off costs based on different transition periods ranging between 0 and 24 months in order to construct a transfer cost estimate for EU clients for different transition period lengths.
435. The model has some important limitations in addition to those discussed above, not least, it is of transfers carried out in normal market conditions which are unlikely to capture conditions in which transfers are widely required and where there is more limited time to carry these out. It is also based on transfers of IRS in EUR, and while it was used to estimate transfer costs for the other currencies of issue because of a lack of alternative data for these, the uncertainty of the cost estimates for these should be considered to be higher as a result.

Annex V. [Redacted]

436. [Redacted]

437. [Redacted]

438. [Redacted]

439. [Redacted]

[REDACTED]

440.

[REDACTED]

[REDACTED]

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[REDACTED]

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[REDACTED]

Annex VI. Breaking of netting sets methodology

443. The data request to UK and EU CCPs was designed to allow the analysis of the effective margin reduction achieved through portfolio margining under Article 27 of the Commission Delegated Regulation (EU) No 153/2013 where relevant, for all interest rates derivatives and credit derivatives cleared at the CCP. Its design also allows to create a typology of participants and to understand the likely new balance of the market in case of transfer.

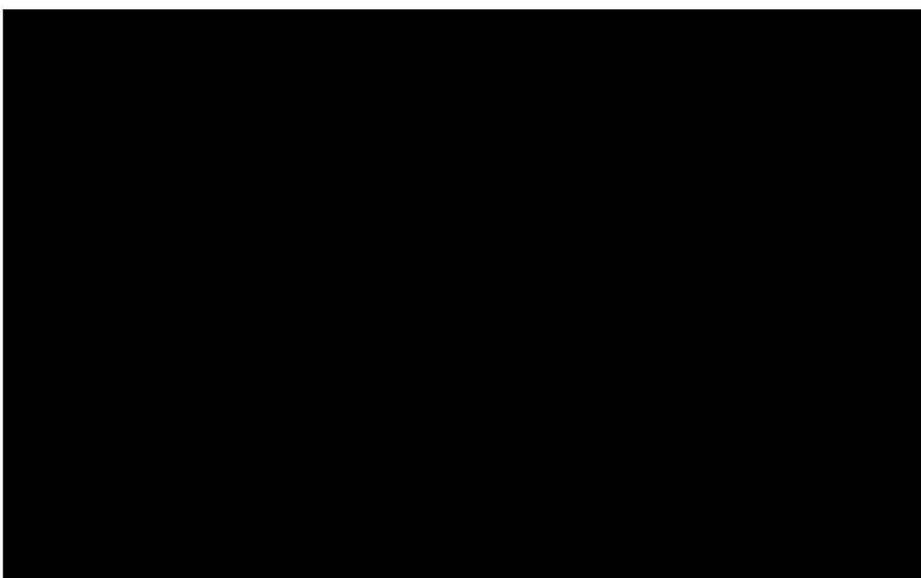
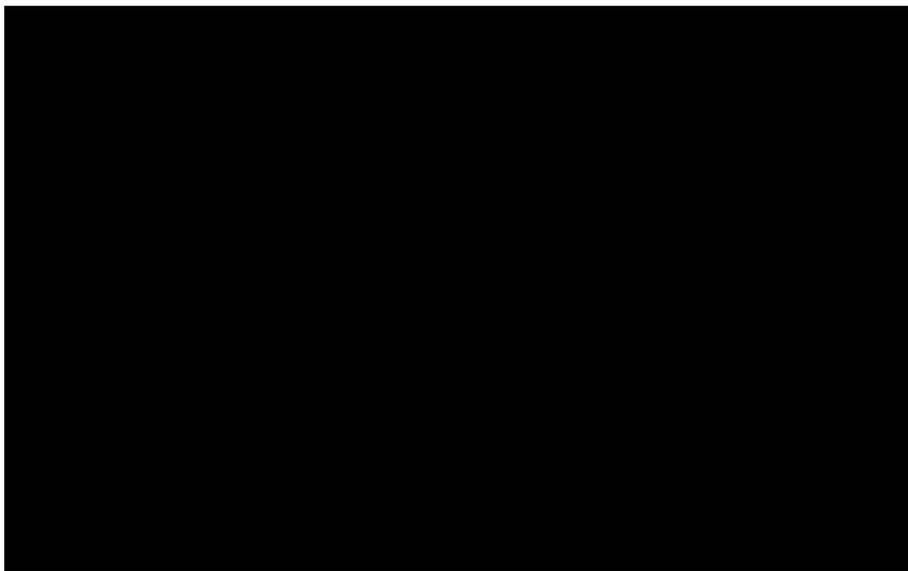
444. For each account, the CCPs had to provide when relevant
 - a. The clearing member and clients LEIs
 - b. The gross margin computed for each (product, currency) pair
 - c. The net margin
 - d. The DV01 risk measure (risk per bp), only for EU currencies
 - e. Addons for both gross and net margins

445. EU clients were allocated on a best effort basis in 4 categories (credit institutions, pension funds, funds, insurance companies). The allocation was done using publicly available data and ESMA internal databases. The list of financial institutions from ECB website was considered first. To assign further entities, ESMA in turn made use of the list of SSM supervised entities, EIOPA registers, ESMA internal investment firm database and the Legal Entity Identifier (LEI) database. Finally, the final number of categories was reduced by a further grouping.

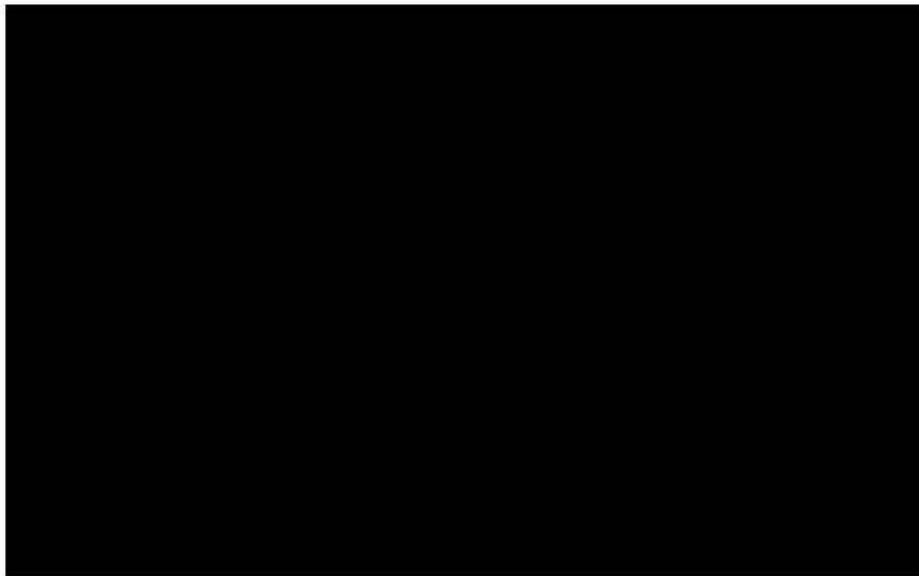
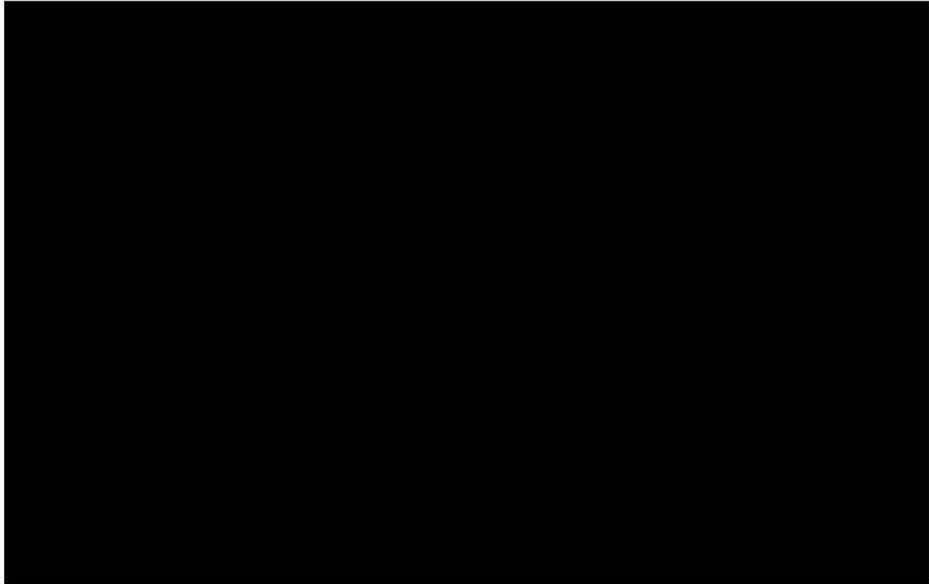
446. For each account and for each category, the following outputs were then computed
 - a. Total gross margin in EUR (with and without addons)
 - b. Margin savings (with and without addons), as the ratio of net margin over gross margin minus one
 - c. Share of gross margin from EU currencies
 - d. Total long, short and net risk for each EU currency

Annex VII. IRD Market overview for non-euro EU currencies

447. Further to the overview of positions of EU participants in EUR IRS market, the analysis here extends this to the other EU currencies cleared on SwapClear. The absolute risks are much smaller. As with EUR, EU clients and EU clearing members have together a rather balanced position in DKK and SEK (see Figures 43 and 44 below).



448. In contrast, the EU participants positions in CZK, HUF and PLN are not balanced, as shown in the Figures below.





Annex VIII. Cross-currency margin savings

