EMIR Implementation: Clearing & Core Operations Workshop – Summary Notes

August, 2013

DOCUMENT PURPOSE

This is a Document of Record of the "FOA EMIR implementation, Clearing and Core Operations" workshop. This document reflects the discussion that took place in the workshop and has sought to collate the information in a logical format.

The intent is for the document to increase awareness of the implementation challenges that exist and provide a basis for constructive dialogue to address some of these challenges.

An Executive Presentation of the findings and themes drawn from the 4 FOA Segregation and Portability workshops will be shared with Regulators.

DISCLAIMER

THIS DOCUMENT REPRESENTS THE FOA'S INTERPRETATION OF THE DISCUSSION POINTS FROM THE APPLICABLE WORKSHOP AND SHOULD NOT BE VIEWED AS BEING ENDORSED IN ANY WAY BY THE PARTICIPATING FIRMS.

1. EXECUTIVE SUMMARY

Headlines	**Need for more detailed information on CCP propositions and implementation plans**	- Challenges relating to EMIR's Segregation and Portability sections for Clearing and Core Operations are consistent with the themes emerging from other Working Groups, namely; an appetite for detailed information on CCPs propositions, Clarification of elements of the EMIR regulation guidelines, and the Scale of the operational and system change required for transition and BAU. - CMs are awaiting further information from CCPs around account models and fees to facilitate informed discussion with clients regarding their account model preferences and service uptake. Practical challenges arise due to the divergence in models across CCP's. In addition to this, CCP's have shared limited details around implementation roadmap around clearing.
	Significant operational change required across the clearing value chain	- All sub-processes in core operations and clearing flow will be impacted due to segregation requirements. A number of operational changes will be required across: position management, allocation and reconciliation processing to be able to handle the new ISA account model. New intra-day timelines place added stress on CMs to accurately manage books and records across CCPs on 'T'.
	Impact of client on-boarding in compressed timeframe will impact the overall go-live	- The CMs will need to open new accounts on the client's behalf, setup instructions and client preferences prior to go-live. Also CCPs need to be able to process large volume of applications in a short window following authorisation. These challenges could impact overall go-live timelines.
	Proposed EMIR implementation challenge poses a significant operational challenge and risk	- The scale of changes to implement and test with all stakeholders in a limited timeframe will be a challenge for CMs to meet the current EMIR deadline for CCP authorisation. Based on a high level estimate from the CMs, it would take approximately 6 months to complete changes for each CCP. This estimate is based on the effort required in a previous ICE migration, which represented 1 CCPs worth of project load and was less complex than EMIR (I.e. No account segregation).
Key changes required	**Significant process and capacity change requirements across the trade life cycle**	- CMs will need to make large scale changes to the BAU processes of trade execution, allocation and reconciliation to meet the new segregation and portability requirements. For example, assuming 1000 accounts/CCP and 4 reconciliations per account (Trade/Position/Fees/Equity), there will be 4000 items to reconcile per CCP daily. Thus the sheer volume of accounts will grow exponentially, raising capacity issues.
	Challenge in meeting cash cut off times	- A delay in completion of daily reconciliation process will impact the cash cut offs for making payments to various CCPs accurately.
	Allocation processing is an example of a function that	- Allocation processing is one of the areas requiring large and complex change from a CM perspective. Splitting the block trade into ISA accounts by clearing broker, feeding allocations using CCP API, handling failed give up trades

	will need to undergo transformation	and average pricing all require significant operational changes and testing effort from CM and vendors.
	Onboarding activities for new account models will be significant [clarify point]	- There will be a number of account setup and other setup activities (SSIs, reference data, rules, user access setup) as part of on-boarding for new account models. Assuming 1000 client accounts per CCP, this could take considerable time to complete setup on all CCPs (EUREX will take approx. 5-7 working days per account setup). This needs to be factored in the overall timeline planning.
Key risks/ challenges	**Delivering EMIR in the required timeline will be a major challenge**	- The key challenge is the ability to complete all required changes in a congested timeline based on CCP authorisation which provides the CM, with a window of 6-7 months to deliver all changes. The implication of extrapolating the 6 month timescale for 15 CCPs is that 3-4 years of project load (assuming a level of development overlap) is required in a 6 month period, working on the assumption of a big bang approach to prioritization.
	Levels of client engagement are limited by the CCP proposition detail made	- There is a dependency on clients confirming in writing their choice of account model and excess allocation to initiate setup activities. However due to uncertainty on CCP models, the level of CM and client communication is limited without sufficient content, leading to difficulties in estimating service uptake at this point. CMs estimate that the demand will be high while CCPs estimate it to be on the lower side based on previous experience from the US. We believe that CCP's estimates are extremely conservative.
	Imperative that the Testing timeframe is reflective of the scale and complexity of the required change	- A number of operational changes need to be documented, implemented and tested fully and this effort will vary depending on the account model offered by different CCPs. An estimated 2 month testing timeframe has been built into the high level estimate of 6 months for all changes. (CCPs conduct major annual upgrades and on two occasions where vendors have not achieved system readiness and CCPs were required to delay implementation). There is also a testing requirement between CCPs, CMs and Clients outside of this timeline.
	Development resource scarcity will need to be mitigated to deliver implementation	- There are limits as to the development resource pool available to affect this change in the given timeframe. In house resources are currently deployed on other EMIR preparation projects; CCP Infrastructure changes (Trading and Clearing with Q3/4 testing and Q1 2014 implementation), Non-seg to House Omnibus/House Affiliate migration, along with other regulatory activities (Basel III, IAS 32)
	Coordination across the ecosystem to deliver a stable BAU platform	- Coordination with Vendor, CCP and clients for system changes, account opening, sequencing of setup activities and end-to-end testing prior to go-live will be logistically challenging as each entity could be at different stages of implementation. In addition to this, repeat testing will be required on each CCP due to a variation in account structure.
Implications: Client	**Potential reduction in service range for clients**	- Some clients/Asset managers use the average pricing function for their fund accounts. Certain CMs will not be able to provide averaging for ISA accounts. Therefore clients will have to choose between using ISA account without averaging or Omnibus account with averaging. (check with Mark)

		- The knock on effect is that the retention of the ability to average (which is intrinsic to both Asset Manager and Hedge Fund dealing) may result in a client having to choose a certain account model. This may not provide them with the segregation they need in practical terms.
	Potential for significant Client system upgrades	- Client in-house interfaces will have a level of built-in automation developed to improve internal efficiency and reporting quality. Clients will now face a choice between having to make investment in automating new CM information feeds to match their systems, or face degradation in efficiency/reporting. Clients will also be impacted directly due to changed fee structures based on the account model chosen.
	Clients will need to be involved in the migration to the new environment if a stable platform is to be implemented	- Clients will have to participate in account setup, documentation and define excess allocation. This will add to their administrative burden. They will also have to engage in testing and implementation activities with CMs, resulting in time, effort and cost implications for clients.
Implications: Operational	**Increase in BAU operational risk particularly around completion of recs in compressed timeframe**	- Changes in trade execution, allocation and reconciliation process will have to be implemented to allow trading in multiple ISA accounts and ensure consistency of books and records at a more granular level in a short timeframe. - CCP files to support reconciliations are received early morning on T+1 and a number of activities need to be completed before market open; Trade Position Reporting, Cash (Funding) and open interest reporting along with assignments. There is a significant operational risk in completing this process in a compressed time period of, in some cases 3-4 hours. This could be further compounded by CCP batch processing delays
	Dependency on on-boarding/setup completion	- New accounts will need to be opened internally in CM systems and externally with CCPs, custodians and relevant instructions need to be setup. Documentation and agreements will have to be updated to reflect segregation and fee changes.
	Testing timeline and resourcing needs due consideration	- The BAU changes and setup will have to be tested end-to-end with all participants which is estimated at 2 months/CCP and all these activities will have direct implication on timelines. There will be substantial pressure on Operations resources if CMs need to go-live on multiple CCPs at the same time and managing complex issues in parallel will be extremely challenging.
Key areas of uncertainty	**Uncertainty on CCP proposition** **Client uncertainty and level of take-up**	- CCPs are not obliged to disclose their offering until they are authorised by the regulator. This uncertainty is creating a dependency for vendors and CMs to make changes in their processes as they have to be in line with CCP offerings. - Clients do not have complete information to be able to make an informed choice on the account models, excess allocation and other operational aspects. Hence some of the setup activities that could have been done upfront, cannot be initiated by the CMs as yet.

2. WORKING ASSUMPTIONS

In order to provide the appropriate framework for discussion and analysis of the regulation impact the Working Group made a number of assumptions.

#	Assumption	Detail
1.	Account structure offered by CCPs and CMs is ISA (Individual Segregated Account) - refer diagram 1 at the bottom of this table	• Client trades and positions to be held on an individual client basis at the CCP • CCP to calculate each account's margin requirement individually. The client margin call from the CCP is based on the net individual client requirement • Assets to be held in a client-specific account at the CCP, either in a client specific pool or at an individual account level • For the purposes of the meeting, the group focussed on changes assuming the CCP 'Day 1' individual segregation solutions. Where future requirements were identified for CCP or vendor development they were noted for later review.

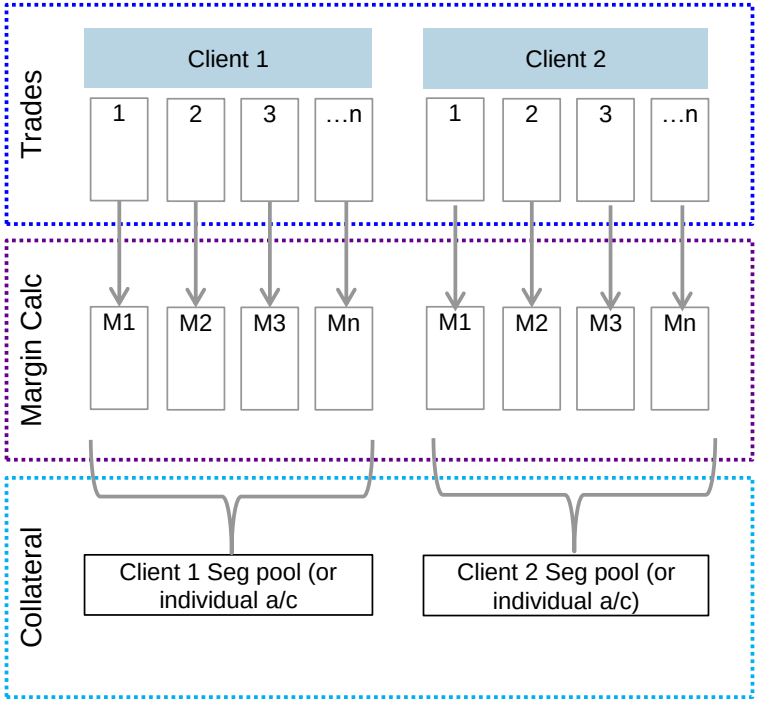
2.	Discussion was based on a summary of known CCP changes and timelines – refer diagram 2 at the bottom of this table	• The summary of account structures and changes to be made by various CCPs was provided by a CM and was taken as the basis for the discussion
		• Few additional comments were made on changes being made by specific CCP:
		  ◦ NOMX will not be making many changes, offers the most complex account structure. Client will be required to pay the default fund
		  ◦ LCH SA timeline has moved from July to September 2013 for application submission and expecting authorisation by March 2014
		  ◦ LCH Ltd: There will be reporting changes and CMs are expecting new fields in reports but do not have sufficient details at the moment
		  ◦ ICE Clear EU and MEFFClear will not be making many changes
		  ◦ Eurex: Clearing & allocation use T2 function currently but it does not meet all the regulatory requirements. There is a need to add new mnemonics. The CCP needs to find a solution for allocation post execution

3.	Segregation responsibility is with the Clearing broker	• Segregation is applicable at the time of clearing and not at the time of execution. Therefore the primary responsibility to ensure segregation lies with the CB (not EB)
4.	Impact of trade reporting is not in scope of this workshop discussion	• The timeline for UTI implementation and reporting to Trade Repositories does not coincide with the Clearing/ Segregation implementation timeline and hence the impact is not considered in this session

The above assumptions were discussed at the beginning of the session to ensure all participating CMs had the same understanding of account models and required changes.

Reference Diagram 1: ISA Account structure overview

This diagram was provided by one of the CMs in preparation for the Working Session. Its purpose is to explain the ISA account model to all CMs as a basis for discussion.



The Working Group agreed to use this as the basis for discussion to understand impact on trade flow process due to ISA model introduction

Reference Diagram 2: Known CCP changes

This diagram was provided by one of the CMs in preparation for the Working Session. Its purpose was to provide a high level summary of changes that various CCPs will be making to comply with the regulation

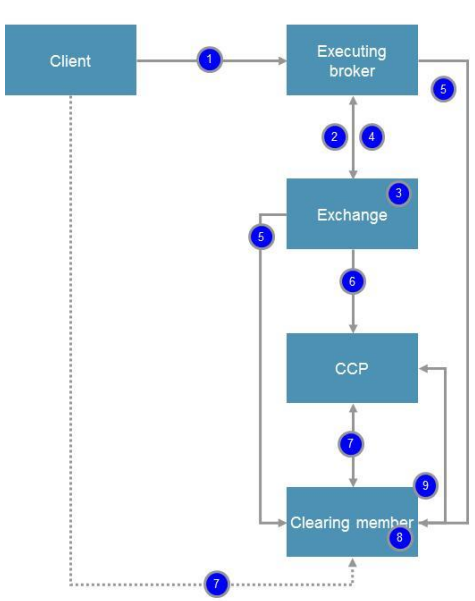
CCP	Est. application submission and authorisation	Individual seg model	Clearing / allocation changes	Average Changes	Deliveries changes	Reporting changes	UTI treatment	Acc opening timeline?
NOMX	Apr → Oct Submitted	Direct Pledge and ICA models (LIVE)	Use existing ICA account type via API or ex	No	No	Already in reports		2 weeks
KDPW	Jun → Dec Submitted	?						
ECC	Jul → Jan	Individual seg for NCMs						
LCH SA	Jul → Jan	ISA?						
LCH Ltd	Jul → Jan	ISA	New fields expected from CCP defining account		Yes – known changes at LME	Changes to incorporate a/c		LME – same day if urgent
Eurex	Aug → Feb	ICM for RC/NCM (LIVE)	G2 functionality / vendor gateway per RC	2014	No	+ collateral pool ID	Details TBC, vendor to provide	7 days (14 at Clearstream)
CME CE	Aug → Feb	Full physical segregation	No – account field already provided					
ICE Clear EU	Sep → Mar	Sponsored Principal	New mnemonic per SP	No	No			
CC&G	Sep → Mar	Individual seg account (Mar 14)	Vendor to support allocation to sub ac	No	No	Yes – details TBC		No
MEFFClear	Sep → Mar	Individual client account (LIVE)	Possibly own mnemonic?	No	No	No		
CCP.A	Sep → Mar	?						
KELER	Sep → Mar	?						
ADECH	Sep → Mar	?						

The Working Group agreed to use this as the basis for discussion regards timelines and operational changes that CMs need to make in tandem with CCP changes. The implications of this are considered in the next section of this write-up.

3. REQUIREMENTS, CHALLENGES AND IMPLICATIONS

The discussion around EMIR Segregation and Portability changes, challenges and implications was structured based on the trade lifecycle as depicted in the flow diagram 3 below:

Reference Diagram 3: Trade lifecycle



Process flow and key changes

1. Client sends order
2. Executing broker sends order to Exchange
   - Allocations: Requirement to identify client level account at this point if trading directly into the client account
3. Order is matched with order from another executing broker / dealer
4. Order is filled
5. A) Executing broker sends trade confirmation to clearing member (either internal messaging if full service, or give-up instruction from another executing broker if clearing only)
   - Requirement to include individual account reference on give-up if execution only

   B) Exchange sends trade confirmation
6. Exchange sends matched trade for clearing
7. Clearing member acknowledges / allocates
   - Requirement for clearing member to feed client allocations by individual position account through CM-CCP API
   - Requirement for carte blanching based on individual position account
   - Specific requirements for holding of pending trades TBA, API to support reallocation
   - Averaging impacts
8. Clearing member feeds transactions to books and records for settlement
9. Clearing member position management activities:
   - Reconciliations: Enhanced trade/position reconciliation of individual client accounts
   - Deliveries processing: Enhanced exercise/assignment processing to include CCP reporting at individual account level
   - Ongoing changes to ISA structure – impacts?
   - Open interest reporting impacts?

Priority areas for the Working Group discussion were agreed to be execution, allocation and position management processes. This section is structured around the Working Group discussion.

3.1 Workshop Summary – Headline themes and implications

Key Area / Theme	Degree of Challenge	Implementation Challenge – for the industry and partners to address	Client impact
Client Execution - Full service flow - Clearing only flow		• Ops change required to offer clients the ability to trade into multiple accts and to support splitting of block into allocation by CB prior to clearing • Small scale system and static data changes to avoid Operational risk in allocation splitting by CB	No implication
Allocation - CM Allocation - Re-allocation - Average pricing		• Ops change to support allocation/re-allocation for failed give-up trades • Reallocation sol. will not be ready on day 1 • Operational risk due to creation and management of additional static data • Large scale change for allocation process	High Client impact due to averaging issue
Reconciliations		• Operational changes to handle larger no. of recs. • Operational risk due to high no. of recs in short timeframe with limited resources	No implication
Deliveries		• Increased no. of shapes for delivery, exercise and corporate actions due to assignment across ISA accounts	No implication
Position management		• No change in process • Large no. of position transfers may need to be managed operationally	Client impact due to change in statements
On-boarding - Setup - Testing - Fees		• Numerous setup and testing activities to be completed • Coordination across multiple parties and reference data setup	Client impact due to testing/ fee changes

3.2 CLIENT EXECUTION: Requirements and implications

Client Execution: Section Summary

- **Client execution process impact:** This will be impacted due to introduction of ISAs and will require operational changes to allow clients to trade into multiple accounts and to allow CB to split block trades given-up by the Executing broker into client accounts
- **Modest changes to static data updates:** The level of operational changes and static data updates required are comparatively small based on inputs provided by the CMs. The changes to handle allocation splitting are required only for one of the two options.
- **Low impact of changes:** The level of impact of these changes is small given that the effort required will be less and the changes will not impact overall timelines as much as other changes considered in this section

Topic	Area	Implementation requirements and challenges	Options for addressing challenge	Headline Implications	Level/type of external dependency
Client execution	Full service flow	**Requirement:** - Due to the introduction of ISA account model, operational changes will be required to provide the clients with the ability to trade across a number of different ISA accounts from a CM perspective - **Execution platform (FIX/ voice trading):** must also be able to support this change and provide option for the client to select account if feasible - **System setup requirements:** the account structure at CCP will have to be mirrored internally in CM systems and		**Low impact.** A lot of clients will have to provide allocations to CMs	

		processes			
Client execution	Clearing only flow (Give up)	**Requirement:** Currently, there are 2 possible ways of EB giving up the trade: a) EB splits the trade into allocations and sends to the CB or b) EB sends the trade to CB and CB splits the trade at their end - The first method will not change due to ISA account introduction. However, the second method will be impacted, as the CB cannot clear the trade until the client provides a breakdown of accounts. - Changes will be required in static data and operational processes so as to allow CB to split the trade prior to clearing		Small scale operational changes	

3.3 ALLOCATION: Requirements and implications

Allocation: Section Summary

- **Significant impact on Allocation processes.** Allocation processing is an important aspect of the trade lifecycle and all sub-process will be significantly impacted due to the new ISA account structure (higher no. of allocations, complex re-allocation process, inability to calculate average pricing)

- **Large no. of system changes:** Level of change has been rated high by the CM community as multiple aspects of allocation processing need changes – for example, give-up trade references, allocation account inputs through CCP API, re-allocation process and average pricing functionality

- **High impact on CM, Client and vendors:** Level of impact is high due to implications for various groups:
  - There will be considerable development effort required from CM and there is operational risk associated with most of the areas as failure to make changes will result in more exceptions and higher manual interventions
  - Vendors will also be required to make changes to support allocation in ISA accounts
  - There will be large impact on clients/industry as CMs cannot provide average pricing and there will be a reduction in service range available to clients

Topic	Area	Implementation requirements and challenges	Options for addressing challenge	Headline Implications	Level/type of external dependency
Allocation	Give up trades	**Requirement:** - Due to the introduction of the ISA account model, CCPs are introducing new mnemonics. Therefore the no. of references will grow and thus the volume of static data will need to be setup.		Operational risk due to additional mnemonics and static data requirements due to overheads to record and manage the new mnemonics	

		Challenge: - This will create additional stress on the industry and increase operational risk			
Allocation	CM allocation	**Requirement:** There is a requirement for CM to feed client allocations by individual position account through CM-CCP API. This will require the following changes: 1. Change will need to be made to the Operations model 2. Vendors (Clearvision) will need to make changes to support the re-allocation process through API for the pending trades held in TBA; however they have a dependency on receiving information from CCPs **Challenge:** Information on changes that CCPs will be making is not available as they are not authorized by the Regulator yet		Large scale operational model changes for CMs Vendors will need to make changes to support re-allocation process through API for pending trades held in TBA account	- Dependency on information provided by CCP regards allocation feeding through CCP API - Dependency on vendor development and testing to support the allocation process; this is in turn dependent on CCP information
Allocation	Re-allocation	**Requirement:** - If the give-up process fails for any reason, the trade will default back to the EB and will need to be allocated correctly to house/ client account - Pending trade for NCM should go into a default house account and a pending client trade should go to a default non CASS Omnibus account. - Prior to market close, trade will need to be re-allocated by the client. Client can	**Strategic solution** is that a default client account and default house account will be created to allocate failed give up trades **Tactical work-around**, EB will have to clear the trade manually in	Operational risk due to manual work-around and complex process This is a high impact area as nearly 70% of exchange trading volume is subject to give-up to another clearing broker	

		re-allocate the trade to correct a mistake in 2 ways: a) allocate to another account of same CB b) allocate to another CB **Challenge:** - On day 1, due to un-availability of default client account , these trades would go into the default house account; while in reality these are client trades. This means that the Client and house trades will be co-mingled which is against the regulation.	a default account		
Allocation	Average pricing	**Requirement:** - Currently, CMs calculate average prices in their books and records and this reconciles with the exchange calculations. - In future, due to the introduction of multiple ISA accounts, CMs will not be able to calculate average price for ISA client account in own Books & Records that matches with the Exchange calculation. **Challenge:** - This may be a restriction for Asset managers trading in certain European markets. E.g.: Equities as they cannot provide averaging function to their clients	Exchanges may need to offer averaging functionality to be competitive. Clients will have to: a) forego averaging function if they want to use ISA model or b) use Omnibus model if they are keen to use averaging function	Large scale impact on clients as options for average price function will be limited by the account model. Hence clients will be forced to choose a sub-optimal solution/ account model.	
Allocation	Corrections & transfers	**Requirements:** CM must consider that when making a correction on T+1 and later for an ISA, a compensating collateral move may also be	**Manual workaround.** A manual process is probably to option at present.	**Operational risk.** One additional CCP step is required even if the transfer is internal to the CM but between	

		required at the CCP to adjust the holding of cash and securities. CM must consider that when making a position transfer for an ISA, a compensating collateral move may also be required at the CCP.	No indications exist that CCP have an API to allow trade plus collateral to move together.	an ISA and the omnibus or another ISA. In consequence there is a greater risk to maintaining true client balances of cash and collateral.	

3.4 RECONCILIATION: Requirements and implications

Reconciliation: Section Summary

- **Growth in no. of reconciliations:** Reconciliation processing will change due to increase in the number of reconciliation at ISA level i.e. level of granularity will be higher in future. There will be 4 recs per account and assuming 1000 accounts/CCP, there will be 4000 line items to reconcile. This combined with the fact that CCP files are received in early morning hours (refer table 1 at the end of this section) will leave little time for Ops resources to complete reconciliations and fix breaks before business starts.

- **Moderate system changes:** Level of change is moderate since the basic process remains the same but there will be more postings and more breaks due to complex account structure and currency impact. Amendments will become more difficult in future.

- **High Operation risk:** Level of impact will be high due to increased operational risk due to higher no. of breaks and time pressure to complete processing with available resources. The treasury teams use recs output to calculate funding requirements to recall excess from CCPs – this needs to be done prior to the CCP cut off, hence there will be high pressure for the CCPs with early cut off times.

Topic	Area	Implementation requirements and challenges	Options for addressing challenge	Headline Implications	Level/type of external dependency
Reconciliation	Reconciliations	**Requirement:** More reconciliation will be required in future due to reconciliations at ISA level. - 4 recs (Trade, position, fees, equity) will be impacted – 1 high level rec per CCP - Assuming 1000 accounts per CCP, there will be ~4000 recs. Also if we assume 3-4 CCPs going live, this would be 12000-16000 line items to reconcile - There will be changes to booking model and there will be more cash & collateral		Increased operational risk due to more breaks and less time available to amend them Increased effort to ensure client segregation and integrity of Books & Records in the available time There is a new cut off introduced	Dependency on CCPs to send the trade, position, cash files to be reconciled against internal CM records – refer table 1 below

		postings - There will be more breaks due to complex clearing structure - Amendments post reconciliations will be required in many places - Cash breaks will increase due to Currency vs. ISA vs. CCP recs - Recs also drive the close out process; manual close out will be difficult on ISA - If a trade is cleared to a wrong ISA or CB, then CM may need to open or close position on Exchange In the long run, process could become easier due to recs at more granular level than current day		to withdraw excess cash lodged at CCPs and this differs for each CCP. Recs process impacts the calculation for amount of excess to be withdrawn. Since there will be more breaks to fix, it will leave less time to make the decision on excess before the cut off putting the treasury process under stress.	

Table 1: CCP reconciliation files timings in GMT (approx.)

Table 1 below shows the timing of trade, position and cash files received by CMs from various CCPs. Its purpose is to illustrate that most of the files are received very early morning on T+1.

CCP	Reconciliation File Timings
LCH.CLEARNET LTD	01:00
EUREX	02:00
ICE CLEAR EU	02:00
NASDAQ OMX	05:00
CCG	05:30
LCH.CLEARNET SA	06:00

The implications of these timings is that the Control teams will have very limited time to review the breaks and fix them before business opens on T+1

3.5 DELIVERIES: Requirements and implications

Deliveries: Section Summary

- **Large number of delivery shapes:** The basic process of Delivery processing will not change but there will be more no. of shapes due to ISA accounts.
- **Booking model change:** Level of change is comparatively small since there is no major development required, only the booking model will change.
- **Minimal impact:** Level of impact is negligible compared to other impacted areas.

Topic	Area	Implementation requirements and challenges	Options for addressing challenge	Headline Implications	Level/type of external dependency
Deliveries	Deliveries	**Requirement:** - Delivery processing will be impacted due to ISA introduction, impact on exercise/ assignment and Corporate actions is as follows: - Booking model will change and Early exercise will change - Volume will not change but there will be increased no. of shapes due to assignment across more ISA accounts - There is a potential impact on settlements for some exchanges like MEFF that do not net settlements - Some processing could become easier due to increased shapes (allocation) - Increased no. of shapes for Corporate actions "		**Medium impact.** Impact on clients will be that notification which might be provided for e.g., at 5 pm may need to be moved to 4 pm due to more accounts	Dependency on CCP interfaces and timings

3.6 POSITION MANAGEMENT: Requirements and implications

SECTION SUMMARY

- **Large no. of position transfers:** Position management process will not change due to new account model. However, there could be large number of position transfers that will have to be managed by the CMs.
- **No development effort:** Level of change is negligible as there is no development effort envisaged by the CMs
- **Small impact:** Level of impact is also negligible given that there is no change in the process.

Topic	Area	Implementation requirements and challenges	Options for addressing challenge	Headline Implications	Level/type of external dependency
Position management	Position management	**Requirement:** - The process for position management and transfers will remain unchanged. However the expectation is that there could a large number of position transfers that need to be managed - Position transfers will take time initially after go-live but once established, it will be easier to run the process. At industry level it is important that all CMs understand the process for position transfer			

3.7 ONBOARDING: Requirements and implications

On-boarding: Section Summary

- **Large scale setup and coordination between participants:** On-boarding will be the most important process for go-live due to the scale and timing of changes. Coordination between different stakeholders i.e. CMs, CCPs, vendors and clients will be a challenge as all account, reference data and custodian setup needs to be completed prior to go-live and delays will have to be minimized across different teams

- **Large testing & change in agreements:** Level of change has been rated high as there will be a large number of setup activities to be completed prior to go-live.
    - All setup and operational changes will need to be tested internally and externally.
    - Changes will also be required in agreements with clients to charge them appropriate fees based on chosen account models.

- **High impact and pre-requisite for go-live:** Level of impact is high as this is critical for go-live and has implications for CM and Client Operations due to setup and testing activities. On-boarding process has many dependencies on CCP/vendor development and many legal and operational aspects have not been defined clearly so far. All the above factors put together will present significant challenges in meeting EMIR timelines based on existing proposals.

- **Skilled resource scarcity.** The operational changes to be implemented as well as setup and on-boarding activities will require large number of skilled resources to complete all changes in the stipulated timeframe. This will put additional pressure on technology and operations resources who are also working simultaneously to deliver other regulatory changes (Basel III, IAS32 etc)

Topic	Area	Implementation requirements and challenges	Options for addressing challenge	Headline Implications	Level/type of external dependency
On-boarding	Setup	**Requirement:** CMs need to understand the key setup activities required prior to go-live. The key activities with largest impact from effort and timeline perspective are - They would need to setup account		Operational impact for CM to complete all setup activities internally and externally. Since this is client dependent, the timeframe for setup would also	- Dependency on CCP offering for account models - Dependency for vendors on operational changes

		structure internally that mirrors the CCP structure - Custodian setup will be required - Reference data setup, give-up, give-in agreements Additional Set up activities include: - Build rules in internal systems/ model to support business - Build in reconciliation process for the NCM - External account structure setup for the NCM on exchange - User access/ setup on the exchange - Setup limits to manage performance - Payment instruction setup/ delivery instruction setup/ Exercise parameters/ currency choice setup - Client settlement preferences - Collateral/ excess setup/ segregation option & legal documentation - Process to allow client to change their selection or choices - Creation of different types of accounts and class/sub class in GMI to differentiate the accounts: House, Affiliate, ISA, Client omnibus - Need a segregation identifier - Portability: back up CM option and information (CM will also need to know if they are the back up CM so that they		depend on client responsiveness Client impact for establishing give-up, give-in agreements Requirement uncertainties and dependency on information from CCPs Account setup is a significant overhead and could be a bottleneck for meeting EMIR deadlines	- This is a critical dependency as some of the previous CCP upgrades have been delayed due to vendor systems not being ready

		can have accounts setup accordingly) - Create reconciliation for back up/ dormant ISA account) **Challenge** - The biggest challenge will be coordination of this volume of activities across all concerned parties like CM, CCP, Custodian and Client around timing and sequence of events			
On-boarding	Fees	**Requirement:** Changes around fees charged by CMs to the clients - CCPs might charge different fees for ISA account, therefore requiring changes in Give up agreement from Omnibus to ISA - There could also be an obligation to change give-in agreement by CB			
On-boarding	Testing	**Requirement:** - Thorough testing will be required internally by CMs (with CCP and vendors) as well as externally with clients. The coordination of testing across CMs, vendors CCPs and clients will be challenging for the CMs. - Given the amount of changes in operational processes and systems, there is an estimated 6 month implementation time required for each		CM and client impact due to extensive time, cost and effort required in testing all operational changes. Large number of skilled resources will be required to implement changes.	Dependency on CCP and vendors to complete all development prior to testing start date CMs and CCPs will have to arrange Testing environment to enable end-to-end testing

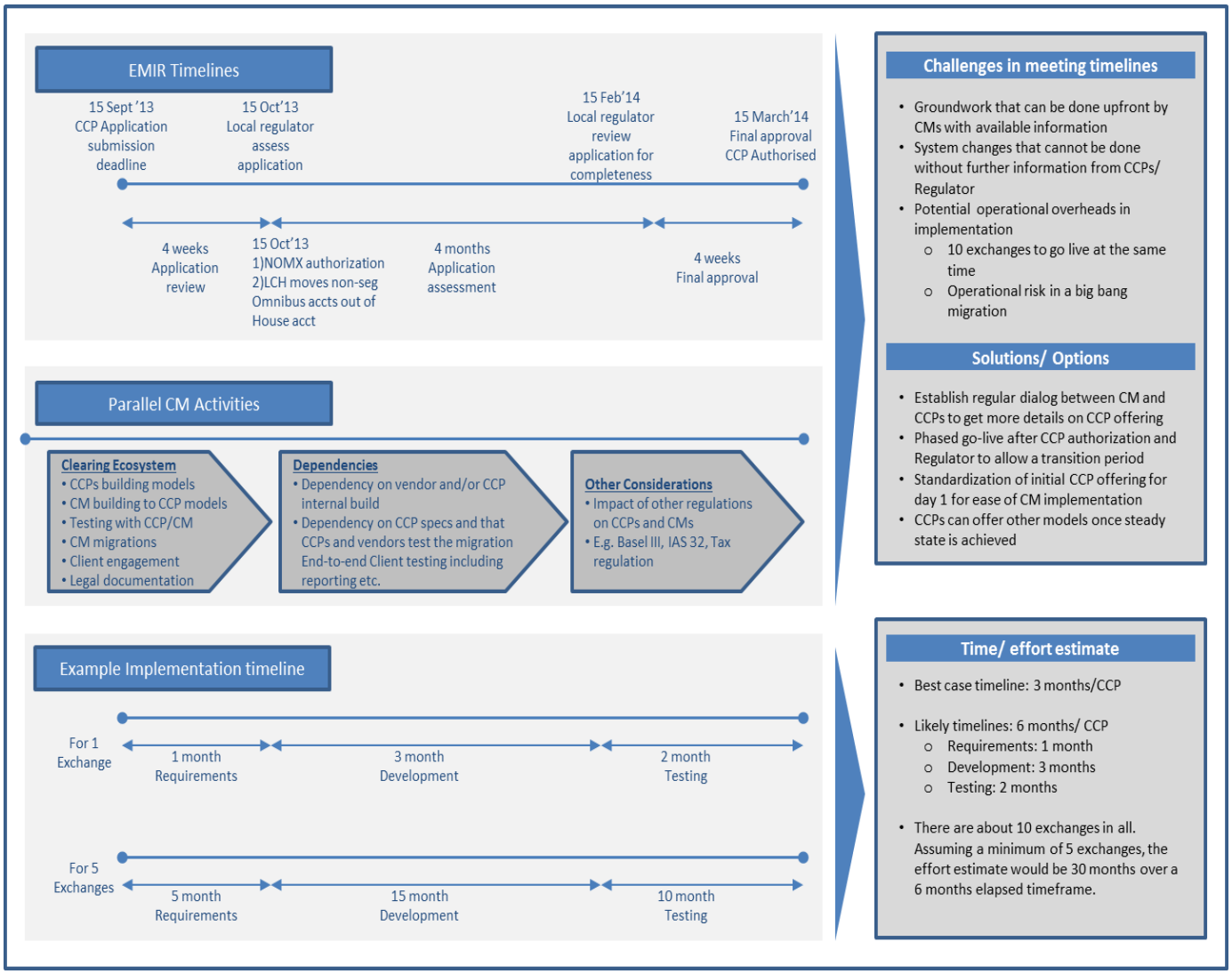
		CCP. This includes requirements documentation, development and testing(2 months) activities – refer diagram 4. - Due to variation in account models, Testing will be required with each CCP			

Diagram 4: On-boarding timeline [see over page]

The group discussed the key dates related to the EMIR regulation and CCP application submission/ authorisation. The purpose of this part of the discussion was to understand all the activities that need to be completed by CMs/CCPs and vendors to go live when CCPs are authorised and other considerations that could impact the go-live:. Key insights from the discussion were:

- **Volume of activities:** There will be a number of setup, development and testing related activities that will need to be progressed by CMs and CCPs while the CCP application is reviewed and approved over the 6 month duration from application submission to authorization.
- **Skilled resource scarcity.** The above 6 month estimate is for a single CCP. However, if a CM would like to go live on 5 CCPs, considering constraints around availability of skilled resources, development and test environments etc. it will not be practically feasible to progress work for 5 CCPs at the same time.
- **Wider regulatory demands:** Another consideration that impacts the timelines are additional regulations (non-EMIR) that CMs and CCPs will have to work and deliver in the same timeframe thereby adding to conflict on talent pool which is already limited.
- **Estimated 6 month timeframe for delivery of required activities:** Given the dependencies on work from vendors and CCPs, CMs estimate a 6 month effort per CCP/exchange. This high level estimate was based on previous ICE account migration exercise. There is a dependency on legal documentation (which could take 2-12 months) for operational changes to be initiated. Once there is more clarity from legal perspective, the changes from Clearing/ Core Operations perspective can be started and this would run in parallel to complete at the same time as legal documentation.

The following timeline was prepared during the workshop based on EMIR deadlines and high level estimates provided by CMs for each CCP. It describes the key dependencies, considerations and factors that would determine the overall migration timeframe.



The key take-away from this discussion on timelines was:

- The clearing ecosystem i.e. CMs, CCPs and vendors will have to make system changes while CCP application is being reviewed.
- There will be a number of dependencies on Vendors/CCPs to be planned and worked through so that all are ready for testing
- Other considerations like non-EMIR regulatory work will have to be factored in while planning schedules and resources
- A high level estimate of 6 month for implementing and testing is the optimal case. CMs need to think of worst case scenario and impact on go-live

4. OUTSTANDING QUESTIONS FOR REGULATORS AND CCPs

4.1 Questions for the CCPs

	Question Area	Question
	Migration approach	• Multiple Clearing members will be migrating multiple accounts on multiple exchanges at the same time. Can CCPs handle this scale of migration? • This is a key question that will help CMs plan for go-live and complete any setup upfront if possible
	Account model details	• CCPs should provide high level details/ change requirements of the account models and features offered to the CMs and vendors • This information will help CMs and vendors make operational changes in tandem with CCP offerings which can be tested
	Account setup documentation timelines	• How soon clients need to give their preferences on account model to get documentation completed for migration?

5. CONCLUSION

5.1 Key messages for Regulators

- **To meet EMIR Regulatory timelines there is a significant dependency on CCP disclosure**. In order for the CMs to be compliant with the regulation and offer the service to the clients, CMs will be undertaking the required setup and be ready to test the structure. However, this involves a dependency on CCPs to complete changes at their end and provide testing infrastructure
- **CCPs are not obligated to disclose their process and changes until they are authorised by the Regulator**. Given the level of effort involved in implementing system changes, CMs would find it a challenge to proceed with confidence until it is confirmed that the ISA model works and what would be the demand/ client take up for the service offered
- **Other Regulatory changes will have conflicting impact on resources and time for CMs and CCPs** e.g. tax regulation, Basel III

5.2 Key messages for FOA members

- **Immediately begin to tackle the "CCP agnostic" requirements.** Based on the information currently available from CCPs, FOA members should continue their analysis and requirements documentation to implement "CCP agnostic" changes as early as possible. This will help them uncover further questions or issues which can be added to the working documents and posed to the concerned parties (CCP/Vendor/regulator) to get more clarity
- **Early engagement with clients.** In addition, a dialogue should be initiated with the clients based on available information to start involving them in the change process which will also give them more time to be prepared from their end.

5.3 Key implications for other Working Groups

- **Timeline for Reconciliations has wider implications.** There are changes required to the reconciliations process from a Clearing and Core Operations perspective. The number of reconciliations required in future will be much larger. Since the CCP files are received early morning, the process will have to be done in a compressed timeframe putting pressure on the available resources. This has also been discussed in the Banking & Treasury workshop. Consequently, there will also be implications of account setup and testing activities on the Banking & Treasury group