



PROBLEMS WITH PORTING

Feedback to your Discussion Paper on Client Clearing: Access and Portability

Dear Sir or Madam,

we would be happy to discuss with you any further comments you may have.
Please do not hesitate to contact our Financial Engineer on +49 171 810 4614 or by email:
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Yours sincerely,

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Our Relation to the BIS

XVA Blockchain GmbH welcomes the opportunity to respond to BIS' Discussion Paper on Client Clearing: Access and Portability. We support the BIS' mission to support central banks' pursuit of monetary and financial stability through international cooperation, and to act as a service provider for banks and central banks. Just as the BIS we value integrity, improvement and innovation.

Summary of our Feedback

We agree with most of the points the discussion paper makes. We are very happy to see the BIS is aware of the risks of sponsor default and acknowledges the varying availability of direct and sponsored access models in different segments of cleared markets.

On the topic porting practices we approve of the BIS' recommendation to pre-emptively identify potential alternate CCSP. To support the successful communication, coordination and harmonisation in a CCP porting framework we, instead, suggest the use of Smart Derivative Contracts (SDCs) to encourage a more decentralised clearing system.



Introduction

The PSG has done a professional job setting methods and objectives for the paper. In particular, the PSG was successful in developing knowledge and understanding regarding new access models by which entities could directly access CCP services and porting practices in place at CCPs. However, we take some issue with the presented solutions.

Access

- 1. Do you agree with the observation in the discussion paper that the direct and sponsored access models are designed for and generally used more by larger and/or more sophisticated clients?**

We agree with the findings of the PSG. Smaller clients might be left out in the rain with sponsored and direct access being one of the main reasons, if not the main, the not so profitable (business?) model for CCSPs. Nevertheless, XVA-Blockchain does not see this as a disadvantage but rather as an opportunity to provide secure, efficient and reliable clearing services to small / medium clients. As XVA Blockchain we want to provide clearing services to these clients.

- 2. Could there be any other solutions that would facilitate access, either through greater use of such access models by small and medium-sized clients, or through some other solution?**

As XVA Blockchain, we want to provide clearing services based on a blockchain reconciliation layer to these clients. With our Smart Derivative Contracts, we are able to reduce the cost of clearing, and enhance security. We want to be a serious force in the transformation of the business of client clearing OTC derivatives making it less burdensome and easier to manage client default. The following link provides an introduction to Smart Derivative Contracts:

[Smart Derivative Contracts \(Detaching Transactions from Counterparty Credit Risk: Specification, Parametrization, Valuation\) by Christian P. Fries, Peter Kohl-Landgraf :: SSRN](#)

Barriers

- 3. Do you agree with the findings in the discussion paper that direct and sponsored access models are used more for certain types of products (e.g., repos) than for others? Do you agree with the reasons described in the paper for why this is the case? Why/why not?**

We would like to comment. We think derivatives play an important role, too. Repo and SFTR are important topics in the securities business, but the high leverage of derivatives and OTC derivatives can harm the financial system in a greater magnitude. However, we are in agreement with the reasons described in the paper.

Challenges related to direct and sponsored access models



- 4. Do you agree that direct and sponsored access models have the potential to diversify the risk profile of the direct clearing participant basis of a CCP by introducing new types of direct participants? Why/why not?**

We admire the work of the PSG and agree that to some extent the introduction of new models might diversify the risk portfolio of CCPs. However, there remain large amounts of risk, in particular sponsor centralization might cause problems.

- 5. Do you think that CCPs have introduced sufficient safeguards to prevent risk transmission from direct participants using direct and sponsored access models? Why/why not? If not, what additional safeguards do you think are necessary?**

Unfortunately, we have to disagree with this proposition. Double clearing member defaults, non-clearing member default (i.e. sponsored participants and participants alike leading to a clearing member defaults) are issues to be resolved. General default management procedures are too weak, and we think any game plans are not sufficient. Access and portability might be improved by the introduction of smart derivative contracts. Furthermore, reduced margin needs due to better settlement operations (T+0, settle-to-market) reduce capital needs within the margining processes. Every margin call of a CCPs initiates a shortfall risk. Smart derivative contracts introduce a trade inception for a pre-funded penalty margin. See again

[Smart Derivative Contracts \(Detaching Transactions from Counterparty Credit Risk: Specification, Parametrization, Valuation\) by Christian P. Fries, Peter Kohl-Landgraf :: SSRN](#)

If a bilateral OTC trade is executed as a smart derivative contract the question about additional safety measures answers itself. The penalty amount needs to be defined as an initial margin.

- 6. Do you think that sponsors are properly incentivised to closely monitor the activity of their sponsored participants (i.e., the direct participants)? Why/why not? If not, how do you think sponsors could be properly incentivised?**

This is definitely the case. This is not in particular a topic of sponsored participants. Big data and analytics are common best bread.

- 7. Do you think that the number of sponsors is limited? Are you concerned about sponsor concentration risk? If so, is this because it is difficult to find a sponsor? Are there any other reasons?**

We agree with the concerns of the PSG. A CCP member is always interested in managing the risk of its participants. Concentration risk might not be covered. A regional focus might lead to a high exposure on certain government bonds and other collateral. Those risks are usually not measured.

- 8. Do you think that CCP rules adequately address the issue of sponsor default? If so, what are the CCP rules that adequately address this issue? If not, what kind of CCP rules are required to address this issue?**

Unfortunately, they do not. This is why we recommend the introduction of smart contracts and a DeFi CCP approach.



Testing

- 9. Have you participated in default management exercises that test direct and sponsored access models?**

No, we have not. We supported an auction process (fire drill) of OTC Interest Rate Swaps in the CCP role.

- 10. Without providing identifying information, what has worked well in such exercises? What has not? Do you have recommendations as to what could be improved for such exercises?**

We suggest introducing smart derivatives contracts instead of a CCP clearing obligation.

Additional considerations

- 11. Please describe any additional factors that may be impacting the activity and uptake of direct and sponsored models that are not considered in this paper.**

No comment

- 12. Please provide any additional comments with regards to the impact that direct and sponsored access models have on access to client clearing.**

No comment

- 13. Please provide additional comments with regard to access to client clearing more generally.**

We agree that the higher the demand of clients to get access to clearing services the more solutions of access models will appear. Nonetheless, it may be the case that some small, medium and / or possibly large clients do not know the modern solution: DeFi CCP. It could be the case that such companies are able to meet all their requirements with such a solution provided by XVA-Blockchain.

Porting

Risks from not porting

- 14. Are there any additional risks or potential harm associated with not porting following a clearing participant default, which were not described in the discussion paper? If so, please describe such additional risks and/or harm.**

We agree with the BIS' assertion that forced liquidation is an undesirable outcome for the market generally as it could exacerbate price volatility and stress market participants. We have no information about further risks.



Potentially effective practices. Do you agree with the two tools identified in the discussion paper as potentially successful porting practices? Are there any other tools that should be identified as potentially effective practices?

While we appreciate the BIS' information, we take issue with the cross margining system. In a cascading liquidation event or even in the event of CCP default porting will not be possible anymore. As an alternative we propose Smart Derivative Contracts.

[Smart Derivative Contracts \(Detaching Transactions from Counterparty Credit Risk: Specification, Parametrisation, Valuation\) by Christian P. Fries, Peter Kohl-Landgraf :: SSRN](#)

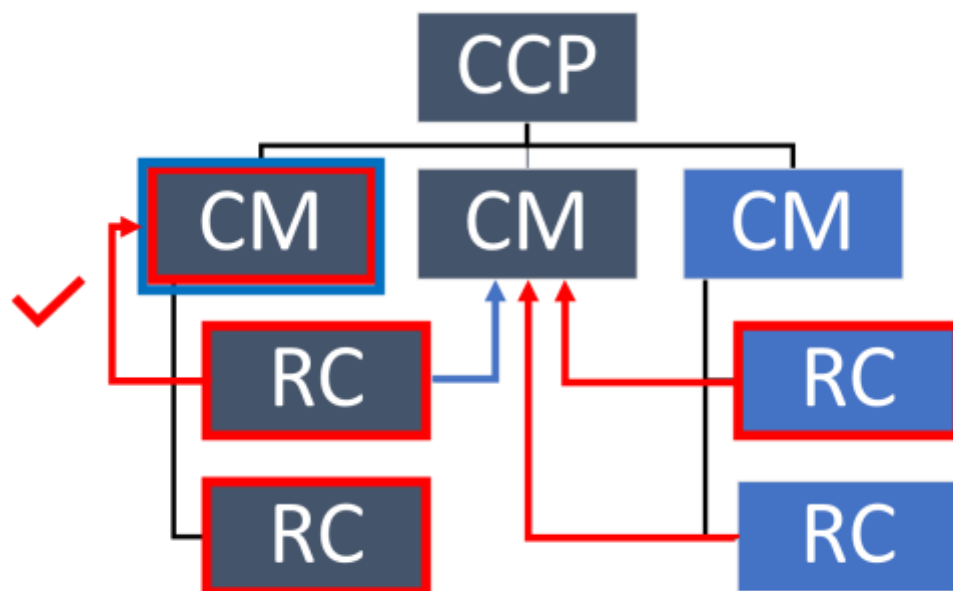


Figure 1: The CCP system in the event of different defaults. Blue means a party defaults, while red means margin is moved

15. What additional approaches do CCPs use to pre-emptively identify a backup CCSP? What incentives can be provided to assist the development of alternative/backup CCSP relationships? Are there any other considerations for alternate/backup CCSPs not set forth in the report?

No comment

16. Are there other considerations for having a game plan that were not described in the discussion paper?

Smart Derivatives Contracts are an alternative not discussed.



17. In addition to those outlined in the paper, what attributes of account structures facilitate or impede porting client accounts?

One usually has to distinguish cash accounts, e.g., CBDC (Central Bank Digital Currencies) or Target2 and T2S for a settlement of securities. Access to national bank liquidity seems to be an option for many G20 countries.

18. Are some client accounts not suitable for porting?

At XVA blockchain we believe that we should not restrict the access to financial markets especially not for minor accounts.

19. Does holding excess collateral and the ability to make direct payments improve the probability that a client will be ported successfully or are there impediments to using this collateral?

Excess collateral can only lessen the risk of CCP default especially in a crisis situation.

20. What is your view of a client consent mechanism that could be used to facilitate porting, if permitted under applicable law?

Consent mechanisms which are in accordance with the local jurisdiction, can be implemented in smart derivative contracts.

21. Are the potentially effective practices described in the discussion paper consistent with prior porting experiences?

No comment

22. Are there any barriers to implementing potentially effective porting practices that are not described in the discussion paper?

No comment

Communication and coordination

23. Are there any additional communications by the CCP or the defaulting CCSP that may increase the probability of porting client accounts?

No comment

24. Are there additional actions CCPs can take following a clearing participant default to coordinate that are not set forth in the discussion paper? Are there any limitations on coordination that are not included in the paper?

No comment



Harmonisation

- 25. Are there additional items CCPs can harmonise or standardise during business as usual that are not outlined in the discussion paper? Are there any factors that may impede harmonisation or standardisation that are not provided in the paper?**

Relying only on CCPs' approaches raises material risks which are very well depicted in all of the previous questions. OTC, bi- or/and trilateral technology approaches using blockchain together with cloud services should be used to accomplish the mission to support central banks' pursuit of monetary and financial stability through international cooperation. CCPs in the UK and those under EMIR regulation are both not capable of managing severe defaults of large members or various double default scenarios.

Notable issues to consider when developing a porting protocol

- 26. Are there additional regulatory requirements that could impede porting? Can such impediments be addressed or mitigated through action prior to the CCSP's default?**

One of the key features of smart derivative contracts is the capability to enclose well defined rules through a computer code. The SDC should be able to terminate the agreement at any time provided that one of the counterparties does not fulfil the requirements for the transaction. These regulations of course can be customised to attain the current jurisdiction.

- 27. Are there any additional factors that should be addressed in testing exercises?**

No comment

- 28. Please provide examples of good disclosure practices from your perspective.**

No comment

- 29. Are there other arrangements a CCSP can make to ensure that, post default, the CCSP can help coordinate porting at multiple CCPs if the CCSP is a non-defaulter? If the CCSP defaults, what arrangements can the CCSP make to facilitate the porting of its clients?**

No comment

Suggested next steps

- 30. Please provide feedback on the suggested next steps for consideration. Do you agree that these issues warrant further consideration by CCPs, CCSPs and/or clients? Are there additional issues that may warrant further consideration?**

We supported the fire drills of default management procedures at a CCP. Procedures are sound and tested well within the given artificial parameters. We appreciate the work of so many colleagues working for a CCP. We think blockchain and smart contracts are new technologies, which can improve the robustness of financial markets. BIS should reconsider clearing obligations under the aspects of new technologies providing better settlement options in the OTC world.



About XVA Blockchain

XVA Blockchain offers data reporting for brokerage, asset management, and custody. Our partners are infrastructure providers for reference and market data. We offer data enrichment services, delegated regulatory reporting, and risk analytics. We employ state of the art technologies beyond blockchain.

XVA Blockchain offers three use cases.

1. Smart Derivative Contracts (SDCs) <https://www.xva-blockchain.com/use-cases/use-case-compression/>
2. XVA Analytics <https://www.xva-blockchain.com/use-cases/use-case-a2-xva-analytics/>
3. Regulatory Reporting <https://www.xva-blockchain.com/use-cases/use-case-a1-trade-repository-reporting/>

XVA Blockchain enables financial institutions to deploy and integrate distributed ledger technology and solutions that disrupt traditional Capital Markets operations and deliver value through optimised capital usage and reduction of trade processing costs.

In our response we focus on so called Smart Derivative Contracts (SDCs).

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3163074

SDCs introduce a penalty payment to modify the American option right in the contract. The penalty and the excess amount in digital wallets can be seen as a combination of default fund contribution and initial margin, inducing a per-contract termination probability.

Hence, each contract comes with its own termination probability (corresponding to the default probability). Based on this, ratings could be assigned on a per-contract basis.

Such smart contracts are also interesting with respect to the mathematical theory of systemic risk, since each contract represents an individual counterparty, increasing the numbers of individual counterparties in the whole system and possibly justifying the application of mean field theory (compared to a setup with a large central counterparty (CCP)).

References

- Fries, Christian P. and Kohl-Landgraf, Peter, Smart Derivative Contracts (Detaching Transactions from Counterparty Credit Risk: Specification, Parametrisation, Valuation) (April 15, 2018). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3163074
- Arnsdorf, Matthias, KVA is Incomplete (February 7, 2020). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3534051