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Efficiency in Capital Markets:

Central Clearing Statistics and Reasons Banks Should Consider Voluntary Clearing

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Introduction: history of clearing in light of the financial crisis

The Great Recession between 2007 and 2009 forced European lawmakers to act. In 2012, the European Market Infrastructure Regulation (EMIR) entered into force to increase transparency and reduce systemic risk in the global OTC derivatives markets. That regulation was preceded by a G20 summit decision of raising the regulatory requirements on clearing, reporting, and capital requirements for OTC derivatives, reinforced by a decision in 2011 on margin requirements for non-centrally cleared derivatives.

Even though central counterparties (CCPs) had existed, they were not given that much attention in the market. That changed by 2013, even before the clearing obligations for interest rate derivatives and credit derivatives came into effect. Since then, margin requirements for non-cleared OTC derivatives have been and still will be further strengthened by the introduction of EMIR Initial Margin.

In general, market participants have two options to get access to CCPs:

- They apply for a clearing membership at the CCP.
- They enter a client relationship with another company (usually a bank) that offers client clearing and is a general clearing member. For many corporates (classified as Non-Financial Counterpart – NFC), this is often the only feasible option.

In this article, we highlight the opportunities which go along with clearing – either for mandatory or voluntary clearing.

Advantages and benefits of clearing

Market integrity and stability are advantages of clearing. In 2008, most of the traded credit default swaps were uncleared and intensified the financial crisis.

Given the goal of increasing market stability, CCPs have developed extensive risk frameworks starting with the first line of defense, which often refers to the requirements for becoming a clearing member. Additionally, CCPs calculate outstanding volumes and increase or decrease initial margin requirements. They also specify the types of assets they accept for margining purposes. Further lines of defense refer to default insurance or a clearing member guaranty fund, which can be used in case a clearing member defaults. There are even more measures like power of assessments where CCPs can request clearing members to increase their guaranty fund contributions or mutualize losses across clearing members. However, as history has shown, these extreme measures have not been used yet but still significantly contribute to the stability of the derivatives market. Despite all these lines of defense, CCPs probably embody the most concentrated risk in financial markets. It should also be noted that there is a strong concentration of risk in banks offering client clearing services as well.

Besides mandatory cleared derivatives, market participants should also consider voluntary clearing – for example, for foreign exchange (FX) derivatives. In a staggered approach from 2016 to 2021, participants trading FX derivatives have or will become subject to uncleared margin rules (UMR). These margin rules, applicable to bilateral derivatives positions, represent various challenges (calculation of aggregate average notional amounts (AANA), entering custody relationships, and initial margin exchange, to name a few). By centrally clearing FX derivatives, the overall efficiency can be increased through netting effects and more efficient margin requirements. In an analysis conducted by LCH, they calculated possible initial margin (IM) savings by central clearing of up to 70 percent.[1] The regulatory recognition of CCPs further minimizes capital costs. Therefore, even though there is no clearing obligation for FX derivatives, market participants could realize efficiency gains by opting for voluntary clearing, even though the clearing rate of FX derivatives is currently relatively low, as the following chapter will show.

[1] Source: LCH - Rising initial margin costs tilts the balance in favour of clearing: https://www.lch.com/system/files/media_root/FXW181119LCH_3%20FINAL.pdf

Central clearing advances: facts and figures

Oustanding Notional in USD

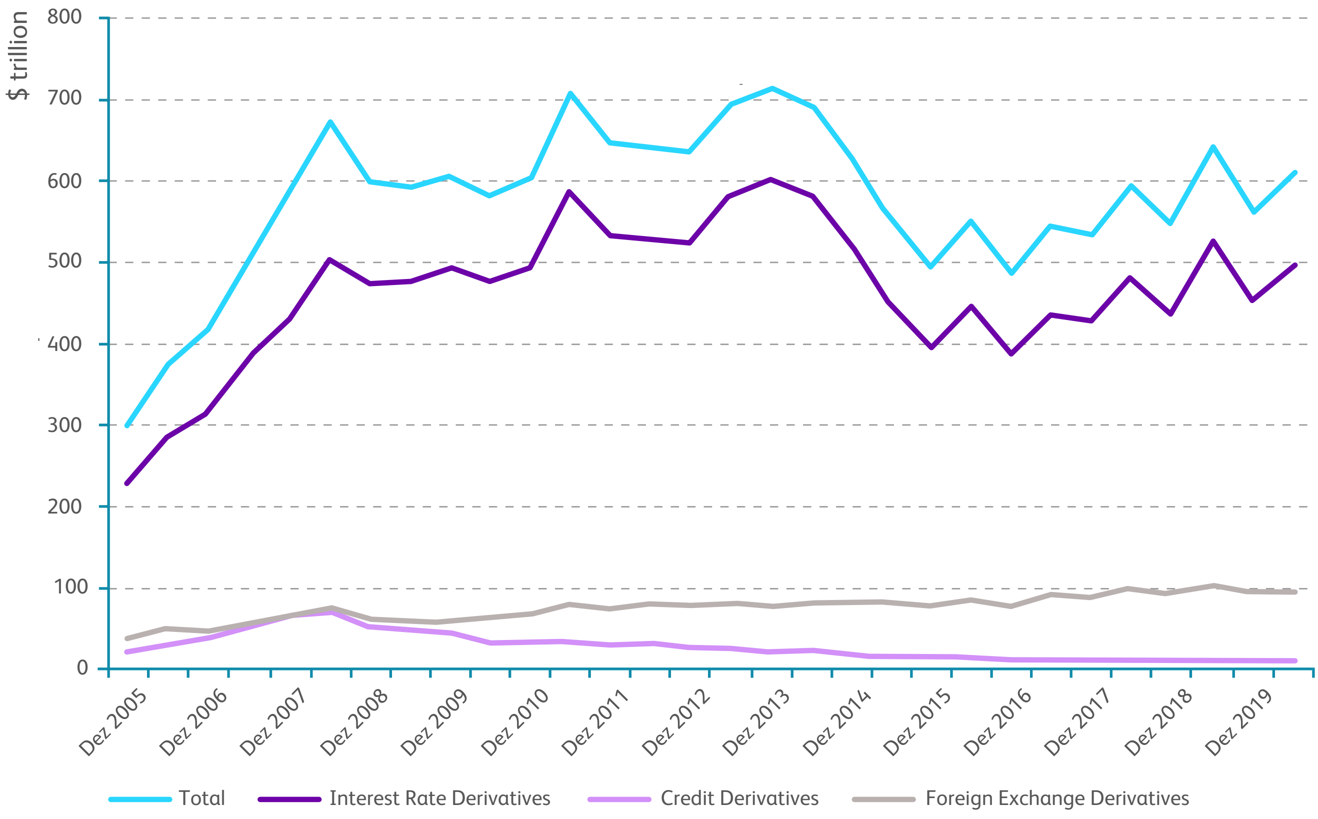

Figure 1: Source BIS Derivatives Statistics (https://stats.bis.org), downloaded on 15 March 2021

Over-the-counter (OTC) markets play an increasingly important role for many types of derivatives. The significant upward trend started with the financial crisis, as shown in the graph. The total outstanding notional amount of OTC derivates in USD amounted to approx. USD 600 trillion by the end of June 2020. The global OTC derivatives activity (measured by the outstanding notional amount) is still dominated by interest rate derivates (IRD) with a share of 82 percent, followed by FX derivatives with 15.5 percent and credit derivatives with 1.5 percent. Commodities and equities play an insignificant role overall.

The regulatory initiatives promoting central clearing in the aftermath of the financial crisis were two-sided. First, for a set of standardized contracts – including forward rate agreements (FRA), interest rate swaps (IRS), and credit default swaps (CDS) – central clearing was mandated. Second, uncleared OTC contracts were charged with higher capital and margin requirements to mirror their risk profile better and, at the same time, promoted central clearing.

Over the period from 2010 to 2017, the clearing rates for IRD and CDS increased substantially. The percentage of centrally cleared IRD rose from 55 percent in 2010 to 75 percent in 2017. The share of centrally cleared CDS increased from 10 percent in 2010 to 55 percent in 2017. Between 2018 and 2019, clearing rates for IRD and CDS barely inched up.

Clearing Rates

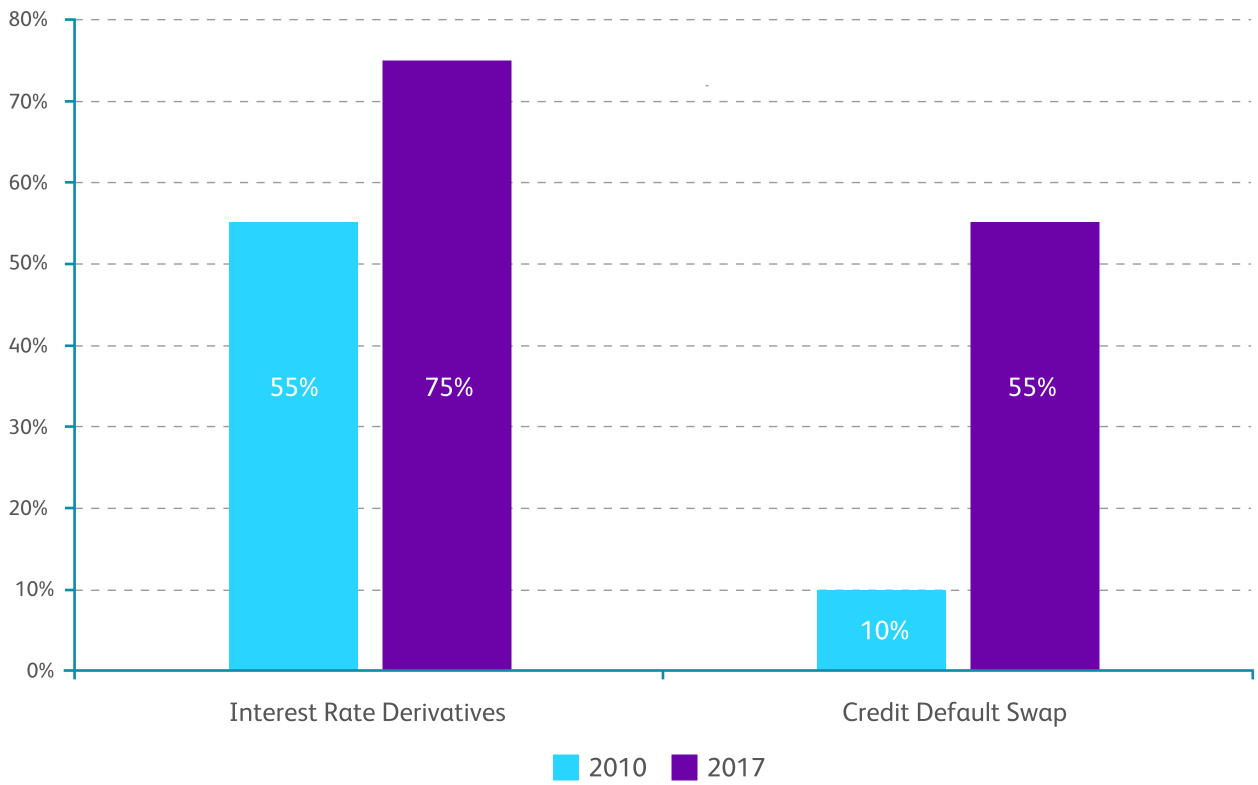

Figure 2: Source – BIS Quarterly Review (December 2019)

In 2019, the share of cleared FX derivatives increased as well, even though the overall clearing rate only reached 4 percent. This low clearing rate can be explained by the fact that most FX derivates are deliverable contracts that are not suitable for central clearing. The exchange of notional principal requires CCPs to have large balance sheets and funding access to various currencies. Nevertheless, between 2016 and 2019, the clearing rates for FX derivatives more than doubled, representing a notable upward trend. As this paper will show, the consideration of voluntary clearing might still make sense.

Central clearing rates for mandated contracts like FRA and IRS reached 100 percent in mid-2019. However, transaction data showed that 90 percent of mandated FRA and IRS contracts were already cleared by the end of 2013. In contrast, mandated CDS grew steadily from 48 percent by the end of 2013 to 92 percent by the end of 2019.

Clearing Rates for Mandated Contracts

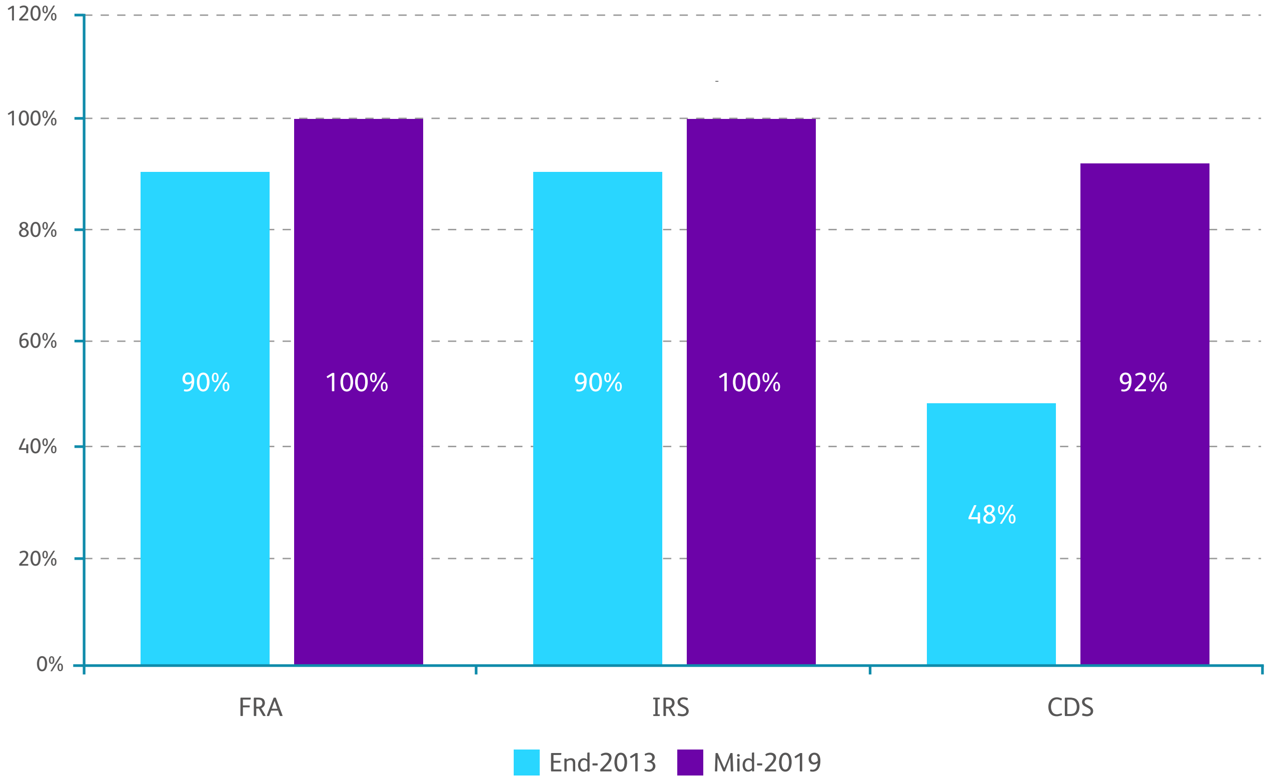

Figure 3: Source – BIS Quarterly Review (December 2019)

The increase of clearing rates for non-mandated contracts from the end of 2013 to mid-2019 is remarkable. The clearing rate for non-mandated FRA contracts jumped by 62 percent, from 17 percent to 79 percent. Clearing of non-mandated IRS climbed from 18 percent to 45 percent, and non-mandated CDS also went up from 1percent to 19 percent.

Clearing Rates for Non-Mandated Contracts

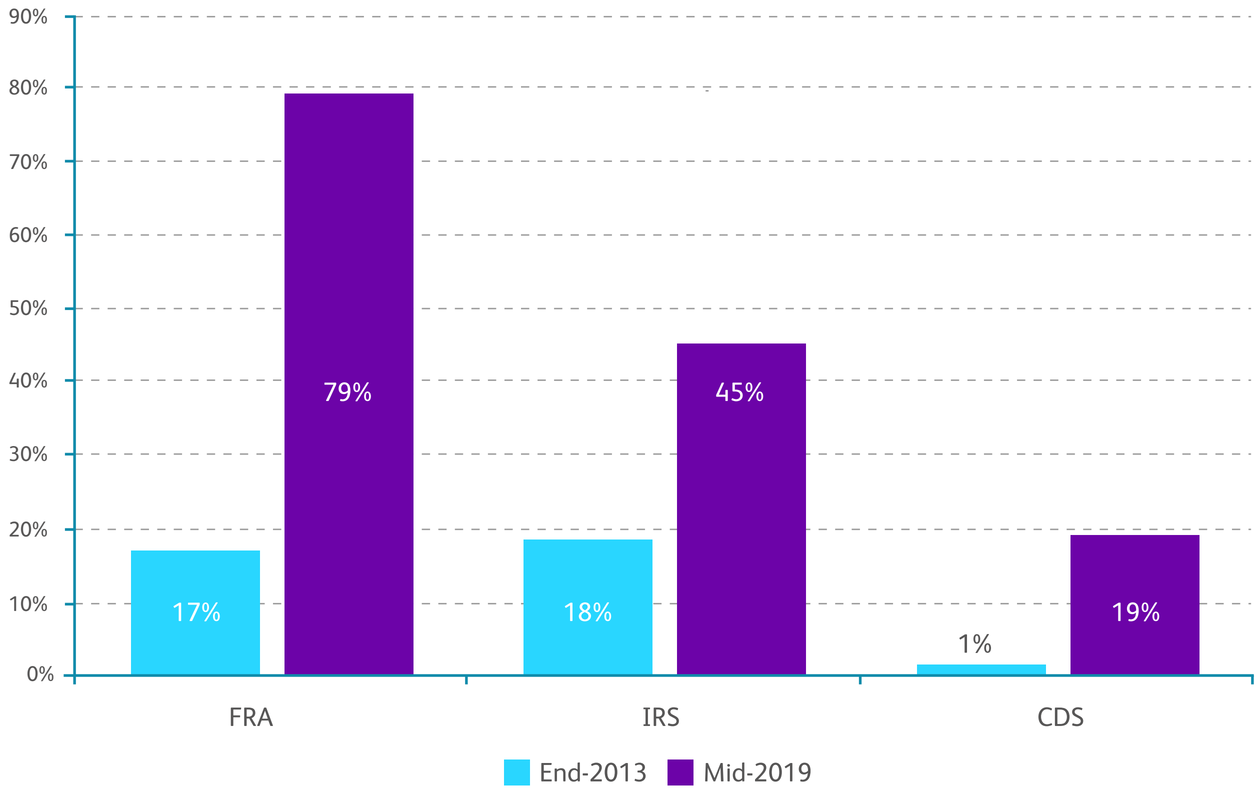

Figure 4: Source – BIS Quarterly Review (December 2019)

Based on these figures, the upward trend in central clearing is especially applicable to non-mandated contracts, which underlines the already mentioned developments in the field of central clearing:

- Central clearing provides multilateral netting benefits
- Due to the introduction of uncleared margin rules, higher capital and margin requirements apply to non-cleared contracts

Incentives and disincentives for (voluntary) central clearing

In general, incentives for central clearing are determined by both regulatory and non-regulatory factors. However, the product portfolio, business model, and risk profile of respective market participants should be considered driving factors. The following two figures illustrate the main incentivizing/disincentivizing factors for centrally clearing non-mandated products from a dealer and a client perspective.

For dealers, the most critical factors for incentivizing central clearing of products are regulatory capital costs, counterparty risk management considerations, and netting opportunities. The high weight on regulatory capital costs can be attributed to the comparative capital treatment of centrally cleared versus uncleared derivative transactions. Initial margin requirements, high fixed costs, and collateral eligibility criteria represent the top three disincentivizing factors for central clearing.

Incentives/Disincentives to clear non-mandated products for dealers

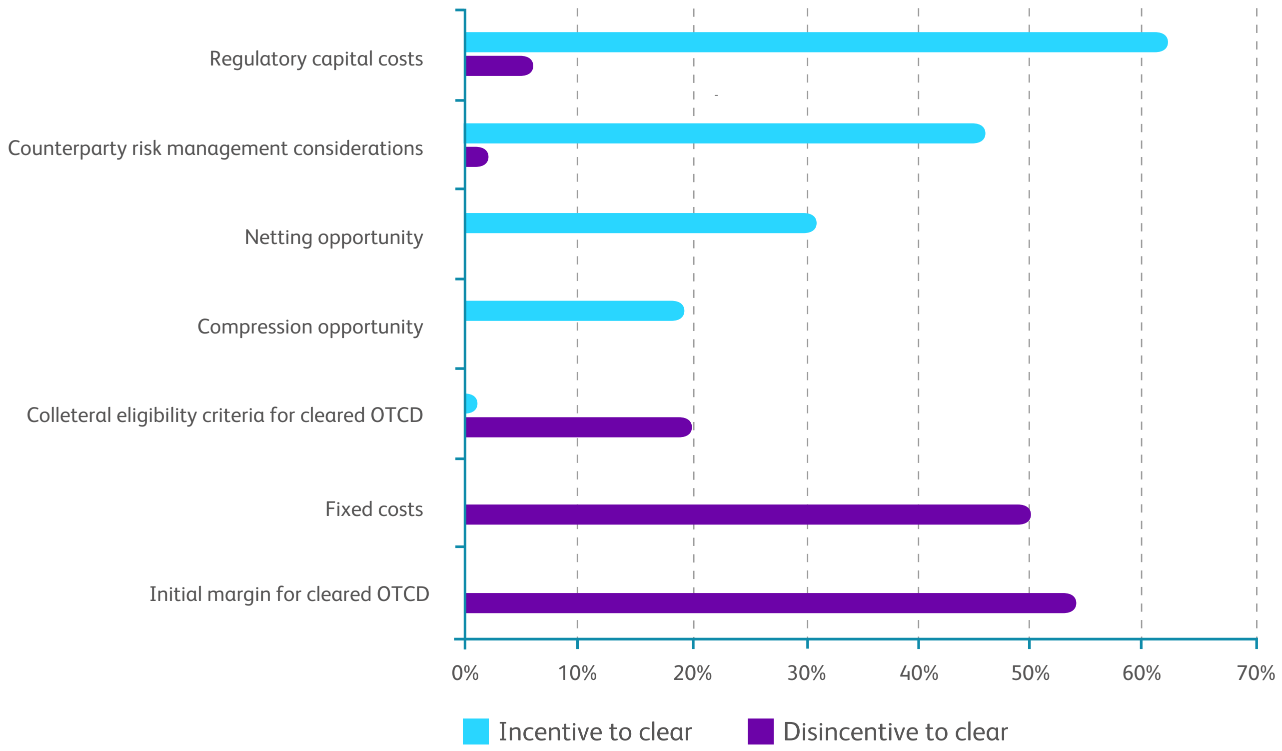

Figure 5: Source – Incentives to centrally clear OTC derivatives, DAT Qualitative Survey (2018). Based on 34 responses, weighted ranking methodology. Illustration is focused on the most significant dis-/incentives.

For clients, counterparty risk management considerations, differences in bid-offer spreads, and the comparative regulatory capital costs between cleared and uncleared derivative transactions are the top three incentivizing factors for central clearing. While high fixed costs, which include fees, liquidity, IT, and operational costs, initial margin requirements, and the access to and the capacity of clearing arrangements, represent the top disincentivizing factors for central clearing.

Incentives/Disincentives to clear non-mandated products for clients

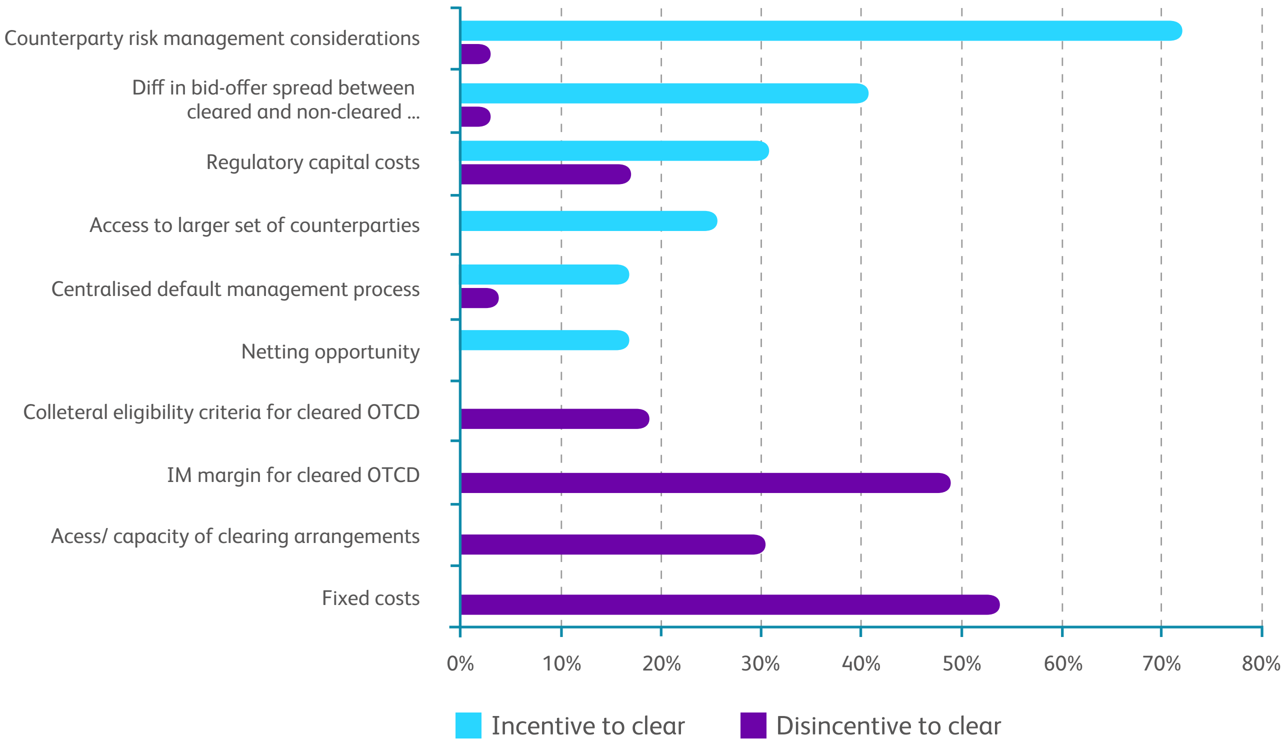

Figure 6: Source – Incentives to centrally clear OTC derivatives, DAT Qualitative Survey (2018). Based on 39 responses, weighted ranking methodology. Illustration is focused on the most significant dis-/incentives.

Furthermore, recent studies show that the probability of OTC derivative transactions being voluntarily cleared is positively correlated with the maturity length of the contract, an upward-sloping credit risk term structure, and larger notional values.[2]

Besides disincentives and incentives, a quantitative survey by the Derivatives Assessment Team (DAT) from BIS finds significant cost advantages for clearing bilateral derivatives. In general, the two following statements were found to be true:

- The higher the trading volumes, the higher the cost advantages through central clearing.
- When market participants also choose to use bonds (and not cash-only) as collateral, the cost advantages were even higher.

This cost advantage depends on many factors, such as asset classes and the maturity length of the respective contracts. Cost advantages of central clearing can quickly add up to 50 percent of the overall costs of contract. When using central clearing, banks should additionally consider applying for a direct clearing membership, as well. If they have been using a general clearing member before, banks can avoid being charged high ticket fees by their general clearing member, which are usually added to any CCP fees. These ticket fees depend on the asset class and may vary in relation to the overall clearing volume but often amount to a few hundred EUR per ticket.

However, common minimum activity CCP-fees represent a potential roadblock for this optimization measure. These fees are charged without reference to client-specific volumes by the CCP, which is why banks should start with an assessment on their trading and clearing volumes to see if there is a real business case and costs can be cut by becoming a direct clearing member.

[2] Source: ERSB – Clearinghouse-Five: determinants of voluntary clearing in European derivatives markets

Conclusion and outlook

From a regulatory perspective, the uncleared margin rules and the corresponding introduction of phase 5 (September 2021) and 6 (September 2022) will further promote the incentive to centrally clear OTC derivative transactions. Latest by the end of September 2022, the threshold of EUR 8 billion based on the aggregate average notional amount (AANA) of non-centrally cleared derivatives will affect not only major and medium-sized banks but also smaller ones. Therefore, the pressure for central clearing will intensify even further.

Based on the already mentioned empirical findings for clearing non-mandated contracts, market participants should consider evaluating possible cost and efficiency advantages by engaging with a clearing member/CCP. Usually, spreads of OTC traded IRS are 1 to 5 basis points higher than for centrally cleared ones. Excluding outliers, the spread advantage lies between 0.8 and 3.5 base points.[3] Despite these empirical findings, market participants should also consider small price differences between different CCPs. CCPs with a higher degree of market acceptance provide a more liquid market which results in more narrow spreads.[4]

It should also be noted that the access to CCPs is more restricted nowadays. Market participants, especially non-financial counterparties, are facing membership criteria that could force them into entering an agreement with another general clearing member or even disincentivize their central clearing activities. That also holds for market participants with low trading activity. However, in terms of market liquidity and risk concentration, it would be favorable to provide broader access to CCPs – especially since there is a high risk-concentration within general clearing members.

BearingPoint's offering

BearingPoint supports banks, exchanges, central counterparties, and other market participants with the functional design and implementation of new regulations and optimization measures. We provide a client-specific assessment based on the product portfolio, business model, and risk profile. This assessment derives optimization measures for future decisions regarding trading and clearing activities and the organizational set-up for these capital markets activities.

[3] BIS – Incentives to centrally clear over-the-counter (OTC) derivatives, 2018
[4] Expert opinion, based on an interview conducted by BearingPoint, 2021

Contact

Dr. Robert Bosch
Partner
robert.bosch@bearingpoint.com

Authors: David Ausserladscheider, Moritz Treutwein

Sources: Bank for International Settlement (BIS), Financial Stability Board (FSB), International Organization of Securities Commissions (IOSCO), European Systemic Risk Board (ESRB). Material from BIS is available on the BIS website free of charge: www.bis.org

About BearingPoint

BearingPoint is an independent management and technology consultancy with European roots and a global reach. The company operates in three business units: The first unit covers the advisory business with a clear focus on five key areas to drive growth across all regions. The second unit provides IP-driven managed services beyond SaaS and offers business critical services to its clients supporting their business success. The third unit provides the software for successful digital transformation and regulatory requirements. It is also designed to explore innovative business models with clients and partners by driving the financing and development of start-ups and leveraging ecosystems. BearingPoint's clients include many of the world's leading companies and organizations. The firm has a global consulting network with more than 10,000 people and supports clients in over 75 countries, engaging with them to achieve measurable and sustainable success.

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