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Central Clearing for Government Securities Repos: A CCP-Centric Perspective

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ABSTRACT: Government securities-backed repo markets constitute a key funding source for market participants in many jurisdictions. A number of recent stress episodes, e.g., in US and UK repo markets, has led to renewed efforts to strengthen the resilience of repo markets. This notably includes a push to increased central clearing via central counterparties (CCPs) which may come via market incentives or in the form of mandatory clearing. Central clearing is commonly considered as a key tool to increase transparency and understanding of markets and improve the risk management practices of market participants. This paper provides a brief overview of post trade-arrangements in select government securities repo markets and offers a structured analysis of potential benefits and risks of bringing repo markets onto centrally cleared platforms from a CCP perspective. The paper lists a set of key considerations that CCPs—and indirectly—policy makers could take into account when exploring the expansion of repo clearing services or opting for a repo clearing mandate. Aside from considerations pertaining to access modalities to repo clearing services, default management and market structure-related aspects are of key importance. Together, these factors ensure that the transition of repo transactions from a decentralized, uncleared set-up to central clearing is conducive to more resilient repo and ultimately government bond markets.

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WORKING PAPERS

Central Clearing for Government Securities Repos: A CCP-Centric Perspective

Prepared by Ismael Boudiaf[1]

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Contents

Acronyms/Glossary

BIS ..... Bank for International Settlements

BME ..... BME Clearing

BOJ ..... Bank of Japan

CCIL ..... Clearing Corporation of India Limited

CCP..... Central Counterparty

CM..... Clearing Member

CPMI ..... Committee on Payments and Market Infrastructures

CSD..... Central Securities Depository

DF ..... Default Fund

DMO..... Debt Management Office

DMP ..... Default Management Processes

DTCC ..... Depository Trust and Clearing Corporation

ECB..... European Central Bank

ETD ..... Exchange Traded Derivatives

EU ..... European Union

Eurex..... Eurex Clearing AG

FICC..... Fixed Income Clearing Corporation

FMI ..... Financial Market Infrastructure

FSB ..... Financial Stability Board

FX..... Foreign Exchange

GFC..... Global Financial Crisis

GMRA.....Global Master Repurchase Agreement

ICMA.....International Capital Market Association

IM.....Initial Margin

IRD.....Interest Rate Derivatives

JSCC .....Japan Securities Clearing Corporation

LCH.....LCH.Clearnet

LCR.....Liquidity Coverage Ratio

NBFI.....Nonbank Financial Institutions

OTC .....Over the Counter

PFMI .....Principles for Financial Market Infrastructures

PQD .....Public Quantitative Disclosure

RBI.....Reserve Bank of India

Repo .....Repurchase Agreement

RTGS.....Real-time Gross Settlement

SSS.....Securities Settlement System

TR.....Trade Repository

UK.....United Kingdom

USD .....United States Dollar

VM .....Variation Margin

1. Introduction

Repurchase agreements (repos), which are a cornerstone of modern financial systems, are financial instruments that involve the sale of financial assets (usually government securities) with a commitment to repurchase the asset at a set price on a future date.[2] The maturity, i.e., the repurchase date, is at the discretion of the parties to the contracts although the vast majority of repurchase agreements are short-term transactions.[3,4] Repos are akin to short-term secured loans in economic terms, but offer additional legal certainty and security to the cash lender, as the securities' ownership is generally transferred to the cash lender via title transfer, enabling a swift liquidation should the cash borrower default before being able to repurchase the securities as agreed.[5]

Repo markets are key as they are a major source of funding, cash management and collateral transformation for banks and other nonbank financial institutions (NBFIs).[6] Repos allow financial institutions with excess securities (e.g., large banks/broker-dealers, hedge funds, smaller banks) to borrow cheaply and allow others (e.g., money market funds, banks, large corporates) with excess cash to earn a small return with less risk than through unsecured lending markets. Repo markets are closely connected to other financial market segments, e.g., derivatives markets, as they allow market participants to fund their investment and risk hedging strategies.

Repo markets are also instrumental from a public finance perspective as they allow banks to finance portfolios of government and other high-quality securities at a relatively low cost, which supports their role as market makers and liquidity providers in sovereign debt markets.[7] A recent FSB publication estimated the government bond-backed repo markets for its member jurisdictions to amount to approximately USD 16 trillion in 2024.[8] They also support banks in managing balance sheet constraints and regulatory requirements, such as the Liquidity Coverage Ratio (LCR), by enabling them to quickly transform assets into cash.

Additionally, repo markets are relevant from a monetary policy perspective, as central banks intervene in repo markets, injecting or absorbing liquidity and thus allowing them to steer short-term interest rates and control liquidity in the banking system (e.g., through standing secured borrowing and lending facilities). This transmission channel is of increased relevance in times of market turmoil, as it allows central banks to provide emergency liquidity in an expeditious, non-disruptive manner.[9]

[2] See BIS Glossary for a formal definition: https://data.bis.org/help/glossary?item=repurchase+agreement+%28repo%29

[3] See: https://www.blackrock.com/cash/literature/brochure/understanding-repo-a-cash-building-block-us.pdf

[4] Maturities will vary according to the respective market convention (e.g., largely overnight in the US, slightly longer terms in the EU, UK) but will rarely exceed three months. However, longer terms are possible.

[5] This is consistent with repo contracts documented under the International Capital Market Association (ICMA) Global Master Repurchase Agreement (GMRA), which is based on a title transfer structure. However, this characterization is not universal across jurisdictions where domestic repo frameworks may instead rely on pledge-based arrangements or different insolvency treatments, with implications for close-out enforceability, asset segregation, and prudential and accounting outcomes.

[6] NBFIs are defined by the Financial Stability Board (FSB) as any financial institution that is not a central bank, a licensed bank, or a public financial institution. NBFIs include investment funds, insurance companies, pension funds and other financial intermediaries that may pose financial stability risks, e.g., through maturity or liquidity transformation, leverage, or regulatory arbitrage.

[7] See ICMA: "What is the role of repo in the financial markets?"

[8] Quantifying the size of global repo markets is complicated as the degree and type of data collected differs markedly across jurisdictions. The FSB figure may underestimate the size of the government bond backed repo market as its country coverage is limited.

[9] See: CGFS, (2017). "Repo market functioning", CGFS Papers No. 59, April 2017.

Repo arrangements differ notably across jurisdictions.[10] Repo markets rely on an array of efficient financial market infrastructures (FMIs), as they require the smooth settlement of both securities and payments.[11] However, the FMI landscape for repo transactions varies considerably across jurisdictions. While in some countries the central bank plays a dominant role in the settlement of repo markets, e.g., by operating both the securities settlement system and the respective payment leg (Japan and the US being examples thereof), other jurisdictions do also rely on privately operated FMIs (e.g., the EU, where several, private post-trading entities co-exist), with the role of the central bank not extending beyond that of an (indirect) market participant for the securities settlement leg.

The structure of repo markets also differs markedly across countries. While some jurisdictions rely on the services of a single FMI, often a central securities depository (CSD), to organize and provide dedicated services, others feature multiple (competing) FMIs. Many jurisdictions host both over-the-counter (OTC) bilateral repo and organized triparty repo[12] markets, where the respective importance of the various arrangements differs according to the market (e.g., triparty dominant in the US, comparatively lesser importance in the EU).[13] In some countries, the type of securities involved in repo transactions is essentially limited to government securities (e.g., US, UK, and India),[14] while in other jurisdictions the pool of securities may be more diverse and may include high-quality corporate securities and asset backed securities (e.g., many EU markets). Finally, differences pertain to the availability and market adoption of central clearing for repos, (lack of repo clearing in e.g., Switzerland or Mexico vs. mandatory repo clearing e.g., in India), and access to repo clearing and settlement markets for market participants (e.g., via local or international custodian banks). In light of the overarching importance of government securities as underlying collateral for repos, this paper's focus and analysis pertains to government[15] bond-backed repo markets. Table 1 provides an overview of repo market arrangements for selected major jurisdictions that offer government bond repo clearing services.

Table 1. Overview of arrangements in select jurisdictions where central clearing of repos is available (YE 2025)

JURISDICTION	CCP	CLEARED RATIO*	CSD/ SSS	TRIPARTY REPO	TRIPARTY REPO CLEARING	ACCESS VIA NON-CSD
United States	FICC	Ca. 40% [1]	Fedwire	YES	YES	BNY+ Custodian Banks
Euro Area	Eurex LCH SA Euronext BME	Ca. 50-60% [2]	Euroclear, Clearstream, Euronext	YES	YES	Custodian Banks

[10] For a broader discussion, see: *CPMI*, "Strengthening repo clearing and settlement arrangements", CPMI Paper 21, September 2010.

[11] Multiple definitions of FMIs coexist. For the scope of this paper, we shall follow the CPMI IOSCO' Principles for Financial Market Infrastructures (PFMI), which determined five types of FMI: Payment Systems, Central Securities Depositories (CSDs), Securities Settlement Systems (SSSs), Central Counterparties (CCPs), and Trade Repositories (TRs).

[12] ICMA defines tri-party repos as "*transaction for which post-trade processing, e.g., collateral selection, payments and deliveries, custody of collateral securities, collateral management and other operations during the life of the transaction is outsourced by the parties to a third-party agent.*"

[13] See: 24. What is tri-party repo? » ICMA.

[14] This includes central government, regional government, as well as government agency issued debt.

[15] Broader Securities Financing Transaction repo clearing services are therefore out of scope.

JURISDICTION	CCP	CLEARED RATIO*	CSD/ SSS	TRIPARTY REPO	TRIPARTY REPO CLEARING	ACCESS VIA NON-CSD
			Securities, Iberclear, etc.			
United Kingdom	LCH Ltd.	Ca. 23% [3]	Euroclear UK (CREST)	YES	YES	Custodian Banks
Japan	JSCC	Ca. 80% [4]	BOJ-NET JBG Services System + Offshore settlement on Clearstream / Euroclear	YES	YES	Local Banks + Custodian Banks
India	CCIL	100%	RBI SGL	YES	YES	Local banks + Primary Dealers

SOURCE: CCP/FMI publications, author's compilation

** Defined as proportion of overall government bond-backed repo market that is centrally cleared by a CCP.*

[1] Kindly refer to Office of Financial Research (2025 data). N.b.: The FSB mentions lower proportions (<40%) but is less transparent on data used.

[2] Kindly refer to European Central Bank (2024 data); FSB: ca. 30%

[3] Kindly refer to Bank of England (2025 data) FSB: ca.15%,.

[4] Kindly refer to ICMA (2020 data) and WFE (2025 data) papers. FSB :<60%; and CCIL publications and FSB which both indicate a 100% clearing rate.

Considerable work and efforts are being directed to ensure the stability and robustness of repo markets, also in reaction to market volatility episodes which affected the smooth functioning of repo markets (see below). Aside from regulatory initiatives to strengthen the resilience of repo markets (e.g., via capital requirements or developments such as margin rules for uncleared derivatives contracts), the central clearing of repo transactions emerged as a potential tool to increase the robustness of repo markets. While discussions on the need to expand central clearing for government security repos are not new (see FSB),[16] they have been conducted with renewed vigor due to the planned upcoming introduction of the clearing mandate in the US,[17] as well as recent and active discussions on the need for a repo clearing mandate[18] in other key jurisdictions (e.g., in Australia,[19] the EU[20] and the UK[21]).

The aim of this paper is to provide policy makers and FMI oversight authorities with a structured view and understanding on government-backed repo clearing services from a CCP's perspective; the paper does not assess whether any specific jurisdiction should introduce a repo clearing mandate, nor does it take a normative position on whether repo clearing should be advanced through mandatory or

[16] Financial Stability Board, Liquidity Preparedness for Margin and Collateral Calls Final Report (December 2024)

[17] SEC announcement on latest phase-in date for the Treasuring clearing rules: "https://www.sec.gov/files/rules/final/2025/34-102487.pdf."

[18] "Clearing mandate" is here defined as a legal requirement established under statute and/or delegated regulation that requires certain financial instruments or market participants to centrally clear specified transactions through a CCP, with scope and application typically set out in secondary regulatory acts. In some cases, exchange or CCP rulebooks may also create quasi-mandatory effects by requiring central clearing as a condition for market access.

[19] Council of Financial Regulators, (2025), Reassessing the Case for Central Clearing of Bonds and Repos in Australia - A Response to Consultation by the Council of Financial Regulators.

[20] Eurex Clearing White Paper: Central clearing for repo markets: Is Europe putting the cart before the horse?

[21] BoE discussion Paper: Enhancing the resilience of the gilt repo market | Bank of England.

market-driven approaches. This work is particularly relevant for jurisdictions considering the introduction of a repo clearing mandate, or where a local CCP is considering launching a repo clearing service. The paper assumes that core repo market foundations are in place, including sound financial supervision and oversight regimes, as well as tested and credible legal, accounting and regulatory frameworks which appropriately recognize the risk-mitigating role of central clearing in capital, leverage, and liquidity requirements. It also presumes an efficient settlement landscape and prudent market practices within sufficiently developed financial markets that have a broad and diverse participation in the respective repo market. Where these preconditions[22] are not present, they would need to be addressed ahead of deliberations on introducing or expanding central clearing for repos. The paper does also not assess whether any specific jurisdiction should introduce a repo clearing mandate, nor does it seek to encourage increased repo clearing through other, market-driven mechanisms. Section 2 provides a brief overview of repo clearing services. Sections 3 and 4 elaborate on benefits and risks caused by a move to central clearing of government securities repos—whether via a formal mandate or more industry-driven initiatives. Section 5 provides key considerations for CCPs and authorities with respect to repo clearing services, with Section 6 concluding this paper.

2. Understanding the central clearing of repos

Central Counterparties (CCPs) can be defined as financial market infrastructures which intermediate between counterparties of a financial contract, becoming the buyer to every seller and the seller to every buyer (thereby "*clearing*" the respective contract).[23] CCPs are instrumental in increasing market efficiency and decreasing counterparty risks: if one of the counterparties fails, other counterparties are protected via the CCP's risk and default management procedures. CCPs also allow for multilateral netting, thereby reducing the liquidity needs of market participants and allowing for a more efficient liquidity allocation.[24] The concrete clearing processes, incl. rules, procedures and timelines, will vary according to the asset class, market structure and the CCP. In general, simplified terms, once a trade is submitted by the counterparties and accepted by the CCP for central clearing, multiple concurrent operational and risk management processes at the CCP are triggered. These include, e.g., the calculation of net positions and collateral requirements per counterparty, as well as the coordination of settlement instructions.[25]

CCPs have been at the core of the post-Global Financial Crisis (GFC) reforms to increase the resilience and transparency of financial markets, although efforts in this respect have been focused on OTC derivatives.[26,27] Many G-20 jurisdictions have introduced clearing mandates (i.e., mandatory central clearing) for select standardized derivatives categories with inherently higher risks, such as credit default swaps

[22] See: Martinez-Resano (2010): Repo markets: draft background note. Washington, D.C. World Bank Group for a paper that discusses these.
[23] See Rehlon, A. and Nixon, D. (2013), "Central counterparties: What are they, why do they matter and how does the Bank supervise them?", Bank of England Quarterly Bulletin, June.
[24] Boudiaf, Scheicher and Vacirca, CCP Initial Margin Models in Europe (April, 2023). ECB Occasional Paper No. 2023/314,
[25] Modern CCPs have also largely automatized trade and settlement flows for derivatives and securities clearing allowing for minimized operational risks and the capacity to clear high volumes of contracts also known as straight through processing or STP).
[26] I.e., bilateral derivatives contracts that are not traded on regulated markets/exchanges.
[27] See FSB (2010): Implementing OTC Derivatives Market Reforms

(CDS) and interest rate derivatives (IRD). Other financial contracts/instruments, which are often bespoke or deemed less risky, such as FX derivatives or securities (a category which includes repos) remain often either uncleared, or cleared on a voluntary basis, or based on market convention.

Recent years, however, have seen repeated turmoil in government securities repo markets in the US and UK, which highlighted the systemic relevance of these markets. Examples in the US include the repo rate spike of September 2019 that was caused by a convergence of corporate tax payment dates leading to a withdrawal of cash providers and strained balance sheets at broker-dealers. This impaired dealers' ability to intermediate between cash providers and counterparties in need of cash on bilateral, uncleared markets.[28] Similarly, the Covid-19-associated *Cash for Dash* episode led to considerable market stress, increased cash demand and required direct intervention by the Federal Reserve.[29] A more recent episode affected the UK Gilt market which experienced material volatility following the announcement of the September 2022 UK "mini-budget". This resulted in Liability-Driven Investment (LDI) funds being required to post additional collateral as counterparties tightened contractual terms, leading them to rely on bilateral repo markets. Ultimately, this led to significant market and funding pressures and required a central bank intervention.[30]

Globally, relatively few CCPs offer dedicated repo clearing services as a significant portion of the repo market is settled bilaterally. Repo clearing services are generally only found in the most developed financial hubs (US, UK, Germany, Japan) or jurisdictions with a quasi-mandate for repo clearing (e.g., India). Additionally, repo clearing services generally only take a secondary role when compared to e.g., IRD or equity clearing services. *Table 2* provides a list of CCPs that offer repo clearing services.

Table 2. CCPs offering repo clearing services for government securities [1]

#	CCP NAME / (CLEARING SERVICE / SUBENTITY)	HOME JURISDICTION	REGION
1	LCH Ltd. / (RepoClear)	UK	Europe
2	Eurex Clearing (Eurex Repo Markets)	Germany	Europe
3	LCH SA / (RepoClear)	France	Europe
4	Euronext Clearing / (Fixed Income/Repo Clearing)	Italy	Europe
5	BME Clearing / (Fixed Income)	Spain	Europe
6	Nasdaq Clearing / (Nasdaq Repo Clearing)	Sweden	Europe
7	National Clearing Centre (NCC) / (REPO Market section)	Russia	Europe
8	KDPW_CCP/ (Organized Market)	Poland	Europe
9	FICC / (Government Securities Division)	United States	Americas
10	Chicago Mercantile Exchange (CME) / (Securities Clearing)	United States	Americas
11	Canadian Derivatives Clearing Corporation (CDCC) / (Fixed Income Clearing & Repo)	Canada	Americas

[28] For an in-depth discussion of the events, see: Kahn, R. et a., (2023). "Anatomy of the Repo Rate Spikes in September 2019," Journal of Financial Crises, Yale Program on Financial Stability (YPFS), vol. 5(4), pages 1-25, July.
[29] For a more detailed overview of the events March 2020 and the impact on repo markets, see: FSB (2020), *Holistic Review of the March Market Turmoil*, November; FSB (2022); The Global Dash for Cash: Why Sovereign Bond Market Functioning Varied across Jurisdictions in March 2020 - Federal Reserve Bank of New York The role of non-bank financial intermediaries in the 'dash for cash' in sterling markets | Bank of England.
[30] See Bank of England Staff Working Paper No. 1,019 for an in-depth discussion of the events

#	CCP NAME / (CLEARING SERVICE / SUBENTITY)	HOME JURISDICTION	REGION
12	B3 Clearinghouse	Brazil	Americas
13	Japan Securities Clearing Corporation (JSCC) / (OTC Japanese Government Bonds)	Japan	Asia
14	Shanghai Clearing House (SHCH) / (GC Repo Clearing Business)	China	Asia
15	The Clearing Corporation of India Ltd / (Securities and Money Market Segment)	India	Asia
16	Istanbul Settlement & Custody Bank (Takasbank) / (Debt Securities Market)	Turkey	Middle East
17	Muqassa / (Repo Clearing Service)	Saudi Arabia	Middle East
18	FMDQ Clear (CCP) / (Repo Segment)	Nigeria	Africa

SOURCE: CCP publications, author's compilation

[1] Focus is on repo clearing as opposed to SFT clearing whose scope differs slightly. The table reflects the status quo as per YE 2025; in 2026 other CCPs plan to expand their repo clearing offers and go online with repo clearing services (e.g. ICE Clear Credit in the US).

The relative scarcity of government securities repo clearing services is due to a mixture of structural features found in many jurisdictions. Many market participants (especially on the buy-side[31]) have been reluctant to abandon an efficient and economically attractive bilateral repo market which allows counterparties to customize repo contracts to their individual needs. On the one hand, the infrastructure for repo transactions is at times fragmented (e.g., the EU hosting multiple, competing, non-integrated platforms) preventing CCPs from establishing repo clearing services that would gather sufficient depth and generate profitability. On the other hand, NBFIs, which are critical players in repo markets, have been reluctant to move to central clearing due to a negative outcome to cost-benefit considerations.[32] Bilateral, uncleared repos are often significantly cheaper with low or no haircuts requested by counterparties.[33] Additionally, NBFIs often do not have the operational capabilities and risk management abilities to become clearing members, with CCP being traditionally bank-centric infrastructures.

In spite of this, over the past few years efforts to expand repo clearing services have come to the forefront of industry and regulatory discussions.[34] The reasons for this development are roughly three-fold. First, a renewed regulatory focus on increasing the transparency/resilience of repo markets, whereby central clearing may be a convenient solution as it goes hand in hand with improved risk management and data collection practices (as opposed to more opaque, decentralized bilateral market practices). Second, as the economic attractiveness of bilateral, uncleared OTC transactions has continuously eroded over time, and margining becomes more commonplace in bilateral transactions[35], dealer-brokers face increasing regulatory incentives to push their clients to the centrally cleared space for more asset classes. Repo clearing services at the largest

[31] Where the buy side are commonly defined as cash-rich institutional investors, i.e. money market funds, asset managers, hedge funds, pension funds and insurance companies.

[32] *See Central clearing for repo markets: Is Europe putting the cart before the horse?* for a more thorough discussion of the challenges to central clearing of repos

[33] See Special Feature "Expanding Central Clearing in Treasury Repo Markets" from November 11, 2022 which discussed developments in the US repo market and stated that "The SEC proposal aims to significantly expand the volume of centrally cleared activity, which will inevitably raise margins and haircuts required for trading with the CCP."

[34] Similarly to the clearing of FX derivatives, which are another product class which is traditionally uncleared.

[35] The main reference here is made to the BCBS- IOSCO Uncleared Margin Rules (UMR) that fully came into effect in 2022 and which mandate exchanging Initial Margin (IM) for non-centrally cleared derivatives to reduce systemic risk. The UMR indirectly incentivize clearing other contracts such as repos in order to benefit from portfolio offsetting techniques.

global CCPs (e.g., DTCC, LCH, Eurex) offering such solutions have witnessed steady and continuous growth in cleared repo volumes.[36] Third, CCPs have continuously aimed to improve their offering, deepen liquidity, notably via attractive margin (i.e., cross-margining) and new membership models that cater to NBFIs facilitate increased clearing activity in other asset classes.

3. Understanding the benefits of repo clearing

Improved oversight and transparency

From a regulatory perspective, repo clearing is often seen as a tool to strengthen financial stability and reduce risks to the functioning of sovereign debt markets. Regulators value the ability of CCPs to provide transparent information flows and standardized risk management across cleared market segments.[37] By centralizing collateral management and enforcing prudent margining,[38] CCPs constrain the ability of market participants to take leveraged positions and allow for increased (centralized) market oversight. This contrasts with decentralized, bilateral repo markets, where reporting obligations for certain counterparties are largely nonexistent or minimal.[39]

Systemic risk reduction

Clearing repos through CCPs can help improve the liquidity of repo/treasury markets, especially in crisis situations.[40] This consideration has grown in relevance, as sovereign debt markets have expanded over the past decade, and limitations in banks' ability to intermediate in uncleared markets during crisis episodes have become apparent (notably due to balance sheet and operational constraints). A clearing mandate would bring repo transactions onto a common platform (i.e., a CCP) where prices and collateral circulation are standardized and harmonized (via margin models and eligibility criteria for collateral). This would lead to a reduction of information asymmetries and, where additional participants were to be allowed to clear via a CCP, allow for a deeper pool of counterparties, which is key to strengthening markets in times of stress. The participation of additional counterparties in repo clearing services (which traditionally was mostly limited to larger dealer-banks) may also allow for more competitive margins[41], which together with the operational and margin netting features of CCPs, could lead to a virtuous cycle of improved liquidity conditions and reduced clearing costs.

Repo clearing would also lead to reduced credit risks, as a CCP would interpose itself between counterparties and mitigate bilateral counterparty risks. Central clearing of repos will introduce standardized

[36] See publications by the three CCPs mentioned: DTCC, LCH, and Eurex.
[37] See: Best Practices in U.S. Treasury Repo Markets - Federal Reserve Bank of New York
[38] For the sake of completeness, it is important to highlight that CCPs cooperate with CSDs and triparty operators (where different from CCPs) to achieve centralized, efficient collateral management.
39 See e.g., "OFR's Pilot Provides Unique Window Into the Non-centrally Cleared Bilateral Repo Market | Office of Financial Research". For completeness, it is also important to highlight that authorities have been trying to establish additional transparency to this market segment via reporting rules. See: Non-centrally Cleared Bilateral Repo Data | Office of Financial Research.
[40] For example, Huser et al. (2024) show that during market stress there is a significant increase in transaction volumes in the centrally cleared market segment.
[41] Largely through deeper markets/market liquidity which might reduce margin model parameters such as the MPOR, although regulatory constraints and CCPs' inherent conservativeness may limit the degree to which this is possible.

margining, mark-to-market risk pricing practices (via variation margin requirements), and require default fund contributions from market participants, all of which constitute risk management practices and layers of protection that are not commonly featured in uncleared repo arrangements. The operational benefits of netting are also relevant, as multilateral netting will reduce gross exposures in the system, thereby facilitating the clean-up in case of defaults.[42]

Increased efficiencies for market participants

From a market-participant perspective (i.e., banks, NBFIs and possibly larger corporates), repo clearing offers practical benefits that go beyond pure risk reduction. Conditional on the CCP constituting the unique counterparty, banks and broker-dealers would benefit because a clearing obligation would allow them to optimize their balance sheet utilization (via capital and leverage ratios), by leveraging netting efficiencies and increased cross-margining opportunities, which in turn lower capital and liquidity costs.[43] Asset managers and buy-side firms (such as pension funds and hedge funds) would gain reliable access to better execution, transparency and confidence in counterparty performance also during economic turmoil.

Repo clearing may also provide portfolio offsetting possibilities that alleviate the burden for CCP participants in terms of required pre-funded resources (i.e., margins and default fund contributions)[44]**.** Roughly speaking, these pertain to cross-product offsets and intra-service offsets. Examples of CCPs that provide cross-product offsets are Eurex[45] and FICC (in cooperation with CME)[46], which allow for margin offsets for repos and fixed income derivatives (e.g., treasury futures). Eurex furthermore has plans to broaden offsetting possibilities to possibly include OTC IRD products, although (regulatory) challenges in this respect remain to be solved. LCH (both LTD[47] and SA[48]), did not allow for cross-product offsets for repos in 2025, although within the service (i.e. cash securities and multiple issuers), offsetting was permitted.

An additional benefit of increased repo clearing stems from the intrinsic interdependencies of repo markets with other cleared (derivatives) markets, as repos are often used to implement hedging strategies.[49] Consequently, building up well-functioning repo clearing services is key for large CCPs that want to further improve and develop their other clearing segments (e.g., fixed income and interest rate derivative clearing services, where market segments not covered by a clearing mandate have yet to onboard their portfolios). In this respect, cross-product benefits offered by CCPs via cross-margining, for example between repo transactions and derivatives with similar underlying, could support market participants' activities through reduced margin requirements and harmonized risk management models. Aside from margin-related benefits, the linkage between cleared repo and derivatives markets may lead to more efficient collateral use, thereby reinforcing the resilience of the broader financial market structure.

[42] See: Jo Braithwaite & David Murphy, 2016. "*Got to be certain: The legal framework for CCP default management processes*," Bank of England Financial Stability Papers 37, Bank of England.
[43] See: https://www.icmagroup.org/assets/documents/Events/CCP-client-clearing-Frank-Odendall-4-Oct-2021-finalv3.pdf . The final degree of capital and leverage benefits will depend on the extent of additional netting achievable.
[44] CCPs rely on a range of risk management tools and minimum criteria to operate safely and efficiently. Amongst these tools we may highlight pre-funded resources such as initial margins, variation margins and default fund contributions. For a more detailed discussions on CCP risk management, see: CCP initial margin models in Europe
[45] See https://www.eurex.com/ec-en/find/circulars/clearing-circular-4609908, Presentation Title (43 pt)
[46] See: FAQ: CME-FICC Cross-Margining Arrangement expansion - CME Group
[47] See: https://www.blackrock.com/corporate/literature/publication/boe-enhancing-the-resilience-of-the-gilt-repo-market-120825.pdf
[48] See: Application for an Exemption from Recognition as a Clearing
[49] See: SFT-issue- daily Odendall.pdf

Innovation regarding increased access to central clearing — sponsored clearing

Increased repo clearing, including when due to a clearing mandate, is also bound to lead to innovation across CCPs, which will have to provide access to new non-bank participants via new membership models.[50] NBFIs have commonly relied on bilateral uncleared markets, as they were unable or reluctant to pay margins and provide contributions to CCPs' default funds (whose size can be non-negligible). New membership models will play a key role in increasing CCPs' client base and reduce the reliance on intermediation by a narrow set of dealer banks.

Recent years have seen the development of a range of new, often called "sponsored", access models to better cater to the needs of NBFIs (e.g., pension funds in the EU)[51] and allow for their onboarding onto centrally cleared repo services. Although the exact modalities of access models will vary across CCPs, sponsored access models exhibit a set of commonalities and entail a redefinition of the role of (sponsoring) clearing members, which continue to be central. While the sponsored clearing member will now be able to establish a (legal) relationship with the CCP and clear its repo transactions "directly" with the CCP, a clearing member will be responsible to sponsor a client's access to the CCP. This "sponsorship" includes providing default fund contributions for the sponsored client and a varying degree of operational support to the client (which may include collateral management and settlement).

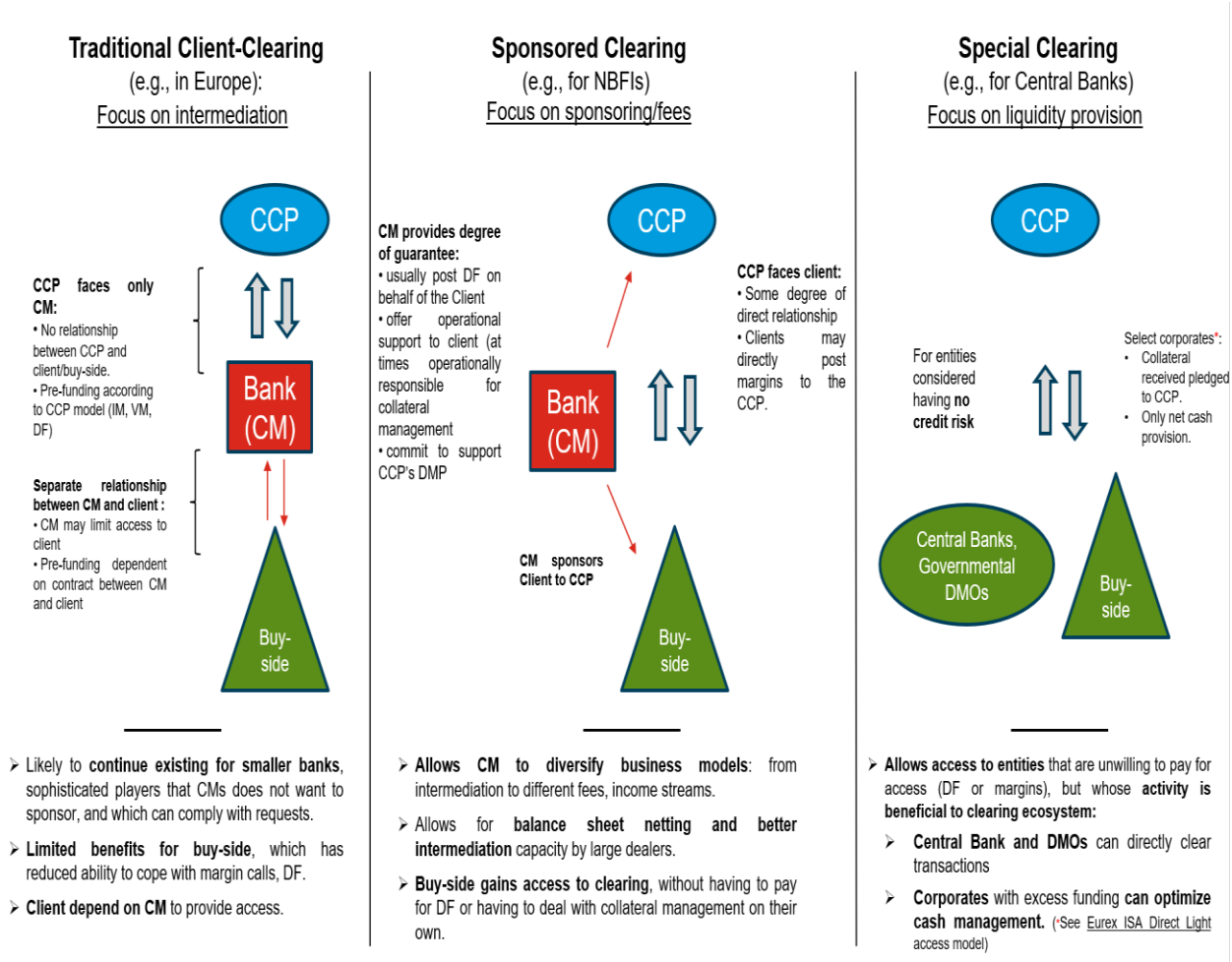
The sponsoring clearing member will be required to support the CCP should the sponsored entity default. This requirement to support the CCP in its default management processes (DMPs) is a key layer of protection for the CCP. Unlike in the traditional client clearing model, where the clearing member is responsible for managing the defaults of its client, in the sponsored access model, the CCP may have a direct relationship with the sponsored participant, and might be responsible for managing its default—unless otherwise specified.[52] Certain arrangements go so far as to require sponsoring members to assume an effectively guarantee-like responsibility for all obligations owed to the CCP arising from the activity of sponsored clients. [53]

In addition to sponsored access models which cater mostly to NBFIs, special membership and access models are being developed by CCPs, to strengthen cleared repo markets and improve liquidity conditions. These models mostly target large corporates with excess cash reserves, central banks, supranational entities and national debt management offices. Although the motivation and intensity of the activity of these market participants varies, they share an unwillingness to be exposed to margin calls or to risk mutualization via Default Fund contributions. Consequently, some CCPs have established arrangements that either reflect the quasi-absence of credit risk (for central banks and certain government actors) or minimize the exposure of the CCP to undue risks (e.g., from corporates, which may only be net cash providers and agree to automatically pledge the securities received to the CCP).[54] Figure 1 provides a comparative conceptual overview of the access models for CCP repo clearing services.

[50] See: CPMI-IOSCO (2022), Client clearing: access and portability
[51] See: Esma70-451-110_letter_to_the_ec_-_clearing_obligation_for_psas.pdf
[52] See https://www.eurex.com/ec-en/join/admission-requirements/isa-direct-member as an example giving insights and information on sponsored access to CCPs.
[53] Sponsored clearing arrangements differ across CCPs and jurisdictions, including in the legal mechanisms used to allocate sponsor responsibility.
[54] See Eurex' Whitepaper for more information on ISA Direct Light Access model: Whitepaper: Direct Access Repo Clearing Models

These new access models can enable more counterparties to benefit from the risk-management framework of CCPs, which would help strengthen the resilience in crisis episodes and the inclusiveness of cleared repo markets across the financial system. Participation in CCPs may also incentivize (sponsored) participants to improve their operational capabilities and risk management practices as their readiness and comfort with post margins increases. The participation of government debt management offices (DMOs) and central banks will provide additional market intervention channels and reduce credit risks they face when transacting bilaterally via banks (which bear a comparatively higher degree of risk).

Figure 1. Overview of recurrent access models at CCPs with repo clearing services



SOURCE: CCP publications, author's illustration

As of today, a substantial proportion of CCPs with repo clearing services do not yet offer non-traditional access to their services (Table 2). Those that offer it are limited to the most developed financial markets. New access models pose challenges both for the CCPs and clearing members, which have yet to understand the tradeoffs between the access models they offer to smaller participants and NBFIs (see below).

Table 3. Presence of novel/non-traditional membership at CCPs clearing repos (as of YE 2025)

#	CCP ACRONYM	PRESENCE OF NON-TRADITIONAL ACCESS	TYPE OF ACCESS/ ACCESS MODALITY NAME	DISCLOSED PLAN TO ENLARGE ACCESS
1	LCH LTD	YES	Sponsored Clearing	Guaranteed Sponsored Clearing
2	Eurex	YES	ISA Direct, ISA Direct Indemnified, ISA Direct Light	-
3	LCH SA	YES	Sponsored Clearing, Special Clearing	-
4	Euronext	NO	-	Sponsored Clearing
5	BME	YES	Agency model, Principal-to-Principal model	-
6	Nasdaq Clearing	NO	-	-
7	NCC	N.a.	N.a.	N.a.
8	KDPW_CCP	NO	-	-
9	FICC	YES	Sponsored Members, Agent Clearing Service (ACS), Centrally Cleared Institutional Triparty (CCIT) Members	-
10	CME	YES	Supported User, Independent User	-
11	CDCC	YES	Limited Clearing Members	Sponsored repo access
12	B3	NO	-	-
13	JSCC	YES	Clearing Fund Sponsored Scheme	-
14	SHCH	N.a.	Special Clearing Member	N.a.
15	CCIL	NO	-	-
16	Takasbank	NO	-	-
17	Tadawul	NO	-	-
18	FMDQ Clear	NO	-	-

SOURCE: CCP publications, author's compilation

4. Understanding the risks from an increased reliance on repo clearing

Market structure-related risks

From a regulatory perspective, incentivizing central clearing for repos may prove to be a double-edged sword, as it risks concentrating systemic risk by creating a potential single point of failure (assuming only one or few CCPs exist in a jurisdiction). If a CCP were to experience a financial or operational breakdown, the consequences could reverberate across the entire financial system, as repo and treasury markets may come to a halt. Rather than leading to risk dispersion, a clearing mandate in the absence of a possibility to clear repos outside a designated CCP may factually centralize risks of a critical market in the FMI. Consequently, considerations such as resilience, governance (CCPs are predominantly privately owned/operated FMIs) and back-stop arrangements for CCPs will come more to the forefront of public interest.

The increased relevance of CCPs for repo markets would need to go hand in hand with expanded risk management and supervisory preparedness and arrangements. Considerations should include *business as usual* risk management considerations, such as deliberations on the question, if—and to which degree—CCPs would need to isolate their repo clearing business from other clearing services. E.g., should default funds, and thus risk mutualization arrangements, be separated for the repo clearing business—or should CCPs even consider setting up separate business entities to increase assurances that prevent crisis contagion from other asset classes. In a similar fashion, CCPs and their supervisory authorities will need to further develop their recovery and resolution planning[55] to cater for a need to intervene in a crisis and interact with types of market participants that CCP oversight authorities might not have been exposed to extensively (e.g., hedge funds, pension funds).[56] In a similar fashion, it is important that the respective regulatory framework and CCP rulebooks establish legal certainty and minimize legal risks for CCPs and the relevant authorities in recovery and resolution scenarios.

Importantly, an increased reliance on repo clearing or a repo clearing mandate may fail to deliver on its promise to increase transaction efficiencies,[57] leading to increased transaction and funding costs. The initial and ongoing financial and operational burden of clearing via CCPs (e.g., onboarding processes) are non-negligible and may raise the cost of funding, especially for smaller banks and NBFIs. More importantly, central clearing may amplify funding pressures during periods of stress, as CCP margin models are calibrated to reflect a considerable degree of risk-sensitivity. Establishing margin models which achieve both, protecting the CCP from counterparty risks, and protecting counterparties from excessively pro-cyclical margin requirements, will be important.[58]

The above concerns would be compounded should the centrally cleared repo market be divided into multiple competing and non-interoperable CCPs, posing the risk of creating a suboptimal market structure, with distinct and disconnected liquidity pools. While having multiple CCPs competing for the repo clearing business in a jurisdiction may lead to more innovation, lower clearing costs and potentially increased resilience, it would also moderate the potential upside from central clearing. The existence of multiple CCPs clearing government-securities repos could lead to increased operational complexity and costs, as clearing members would likely face increased costs due to having multiple membership across CCPs to service client demand.[59] Should no interoperability (cross-margining) agreement exist between CCPs, portfolio and balance sheet netting possibilities for market participants and clearing members would furthermore be limited, reducing the appeal for clearing significantly. In normal times, the benefits of central clearing would also be reduced as

[55] CPMI-IOSCO and the FSB have issued comprehensive guidance on CCP recovery and resolution planning and the respective recovery and resolution tools. The EU CCP Recovery and Resolution Regulation (CCPRRR, Regulation 2021/23) is a concrete example of the implementation of this guidance in a specific jurisdiction.

[56] It is likely that repo clearing services would be deemed of critical importance should central clearing for repo transactions become widespread in a jurisdiction. Consequently, there will be a need for the CCP, the supervisory and the resolution authority to cooperate in establishing appropriate safeguards and ensure the continuity in the case of a severe crisis.

[57] E.g., Bowman et al. (2024) suggest that in the US dealers already net a substantial share of positions internally, and that a non-trivial portion of bilaterally cleared activity would not become nettable even after the introduction of the clearing mandate.

[58] See notably CPMI- IOSCO (2017) - Resilience of central counterparties (CCPs): Further guidance on the PFMI, and BCBS – CPMI-IOSCO (2025) Transparency and responsiveness of initial margin in centrally cleared markets – review and policy proposals for additional guidance on CCP margin models and anti-pro-cyclicality matters.

[59] Notably, as large dealers/banks offering clearing/sponsoring services to their clients would have to get CCP memberships which each come with own dedicated commitments (risk committee participations, default management procedure testing, etc.) and requirements (default fund contributions, margin requirements, etc.).

multiple platforms/repo clearing pools would co-exist, likely increasing the cost of clearing due to the need to reflect the lower market size in CCP margin model parameters and choices.

CCP-specific risks

From a CCP's perspective, risks exist with respect to the exposure to new membership models. While sponsored access models may have beneficial effects on sponsoring banks' balance sheets and intermediation choices, it will not automatically reduce CCPs' reliance on its direct clearing members. Broader usage of central clearing is likely to lead to increased reliance on the resilience and risk management capabilities of sponsoring clearing members. Sponsoring members will remain responsible for the payment of the default fund contributions (and sometimes the margin payments) for their sponsored clearing members that lack the capability or willingness to do so. The new membership models will also expose CCPs to counterparties which may not have an adequate degree of operational readiness to manage (intraday) margin calls and liquidity shocks.[60] Additionally, CCPs would be exposed to additional risks, should sponsors fail to properly monitor client positions, manage collateral flows or overestimate their combined (clearing member, client clearing, and sponsored clients) resilience to shocks and fail to support the CCP in their default management processes.

Sponsored access models are also likely to grant additional market power and gatekeeper functions to clearing members, as those will now be able to decide which type of access they grant to interested clients. There is a risk that sponsored access would not be granted based on transparent, risk-based approaches (which define the access rules for CCPs), but based on the nature of the relationship between the clearing member and the sponsored entity. The control and likely higher profitability of traditional client clearing access, where clearing members have a large degree of freedom in calibrating margin calls, may well outweigh balance sheet-related considerations in normal times and restrict the access to CCPs via sponsored models.

Aside from the above implications of the risks faced by CCPs, the new membership models also raise moral hazard concerns, if the risk-management discipline among both end-users and sponsoring banks were to weaken. NBFIs may rely excessively on sponsors to manage collateral and liquidity needs, weakening their own incentives to maintain robust risk frameworks and controls. Sponsoring banks might underestimate and underprice client risks, transferring risks to other CCP participants, as CCPs inherently also mutualize losses (via default funds, as prime example). Should market participants also be convinced of the *too-big-to-fail* nature of CCPs or a certain central bank intervention in case of financial turmoil, increased reliance on central clearing would not lead to less risk-taking but may result in the opposite.

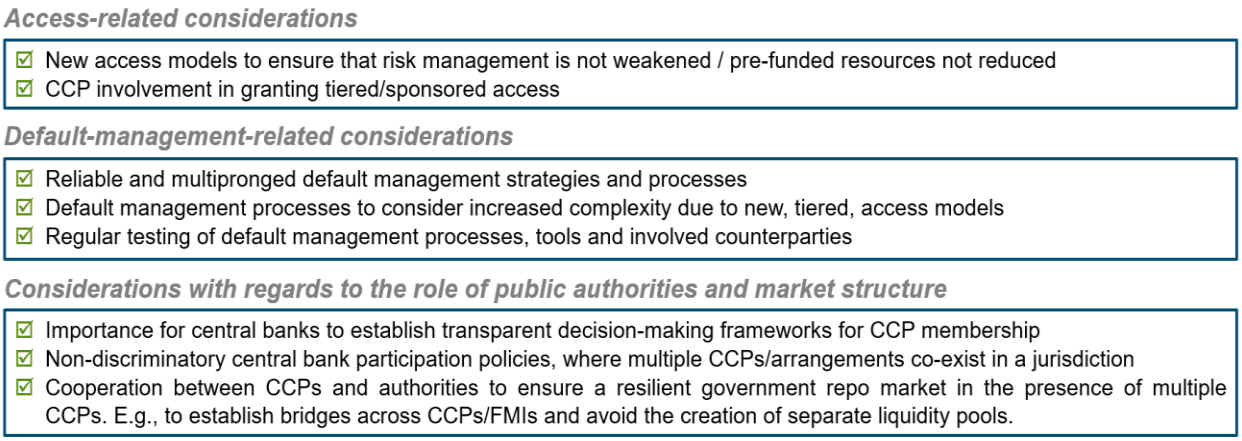
Indeed, much of the public debate around repo clearing has focused on the benefits for the industry/banking sector and regulators, with less focus on which risk management considerations for CCPs.

[60] Depending on the jurisdiction, unlike banks, NBFIs might not have access to CB emergency lending facilities. Their business models are often less geared toward active liquidity management, which might increase a CCP's risk exposure if these participants were to withdraw or default under adverse market conditions.

5. Key considerations for CCPs and authorities with respect to repo clearing services

To ensure resilient and efficient repo clearing services and manage the corresponding risks, it would be advisable for CCPs and policy makers to provide solutions to the following set of three core issues (which will be discussed in more detail below)**.**[61] First, CCPs will need to find workable solutions that allow them to expand access to key repo-market participants, without exposing themselves to new, undue risks, and comply with the Principles for Financial Market Infrastructures (PFMI).[62] Second, CCPs, considering the criticality of repo markets, will need to continue establishing and testing the resilience of default management procedures (DMPs). Finally, CCPs and authorities will need to establish transparent and clear frameworks governing the relationship between CCPs and public entities (including central banks) and the relationships amongst competing CCPs to allow for resilient, and liquid repo markets under all market conditions.

Figure 2. Summarized key considerations for CCPs and authorities regarding repo clearing services



Access-related considerations

When establishing new access models for NBFIs, it would be prudent for CCPs to ensure that they do not unduly expose themselves or their participants to new types of counterparty credit risk.[63] It is key that CCPs continue to ensure that sufficient margin, default fund contributions and involvement from sponsoring clearing members are provided. This will require obtaining sufficient legal certainty and assurances regarding the guarantee that sponsoring clearing members provide for sponsored clearing members.[64] CCPs will need to be

[61] It is important to highlight that the Principles for Financial Market Infrastructures (PFMI), related guidance, as well as the various jurisdictions implementations thereof, provide strong standards for central counterparties and are equally valid for repo clearing services.

[62] See: CPMI-IOSCO (2022), Client clearing: access and portability.

[63] See Principles 18 (Access and participation requirements) and 19 (Tiered participation arrangements) of the PFMI.

[64] Principle 1 of the PFMI (Legal basis) requires CCPs *to "have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions"*. For instance, legal certainty around sponsor obligations is critical, particularly in relation to insolvency avoidance risks affecting the enforceability of guarantee-like or rulebook-based commitments of sponsoring clearing members in a default scenario.

certain that sponsoring members are capable of honoring commitments in times of market turmoil. These assurances will have to go hand in hand with a shared responsibility to monitor the activity and solvency of sponsored clients to ensure that the CCP always remains protected. The introduction of sponsored access models means that additional monitoring of sponsoring clearing members is required in case a participant not only clears for itself but also has clients (client clearing) and needs sufficient capacity to step in for additional sponsored clients. These additional processes and complexity and the costs that this entails for CCPs (and ultimately repo clearing services) will likely result in some CCPs/jurisdictions not implementing novel access modalities, thereby limiting the adoption of central clearing for repo markets (especially in less developed markets).

It is important for CCPs to ensure that clearing members are aligned with the CCP's overarching strategy to develop repo clearing markets. This follows as the novel access modalities discussed endow sponsoring banks/dealer-brokers with significant gatekeeper powers and the interests of the CCP and its largest members might not be aligned. Clearing members might aim to maximize their profitability, which may result in them denying sponsorship to certain counterparties to retain clients that are currently clearing via members' traditional client clearing business (likely to generate higher fees and granting more control/discretion to clearing members). Whilst it is important to allow clearing members to decide on whether to sponsor an NBFI—or not—based on risk-related considerations, it is similarly important to avoid non-transparent, discretionary access to CCPs. Possible solutions would include requiring clearing members to disclose pricing strategies to the CCP and restricting client-clearing to banks and sponsored clearing to all other institutions. This would allow CCPs to fine tune their (tiered) access models and the pricing thereof and also enable them to sanction unwarranted behavior, e.g., via restrictions for clearing members that do not act in line with the CCP's stated policies.

Default-management-related considerations

A second consideration pertains to the default management for centrally cleared repo segments which is both critical and challenging for CCPs due to the scale, speed, and interconnectedness of repo markets.[65] As repos are typically short-term and involve highly liquid government securities, CCPs must have arrangements in place that allow them to act swiftly when a clearing member defaults, both in cases where the defaulted clearing member is a cash provider or borrower. Handling (i.e., hedging or liquidating) potentially large portfolios without destabilizing the underlying bond markets and avoiding considerable losses may however pose a significant challenge, especially since markets are likely to be under stress and other participants may have limited ability to absorb large portfolios when a default occurs.

It is important for CCPs to establish multiple default management tools rather than, for example, relying exclusively on pre-arranged sales through contracted brokers or auction mechanisms. Whilst some CCPs rely solely on pre-arranged agreements with brokers to liquidate defaulters' securities portfolios, other CCPs have also implemented auctioning (and mandatory bidding) procedures[66], which may be more market neutral in certain circumstances. While direct liquidation via a broker may provide a simple and straightforward path, it risks concentrating execution risk to one or a few pre-selected brokers, reduces competitive tension in pricing, and may fail under stressed conditions if the broker itself faces constraints. By contrast, a diversified toolkit, including

[65] The PFMI includes two principles that are focused on default management: Principle 13 (Participant-default Rules and Procedures) and Principle 14 (Segregation and Portability).
[66] E.g., via a closed auction.

(forced) member auctions or direct portfolio transfers, allows CCPs to tailor their response to market conditions, minimize fire-sale dynamics, and optimize recovery outcomes. Additionally, a CCP shall also consider implementing requirements for sponsoring clearing members to provide adequate support should a large sponsored clearing member default, e.g., by supporting the action of the CCP or taking over (parts of) the defaulter's portfolio and losses according to pre-defined loss allocation mechanisms.

CCPs' default management processes will also need to consider the increased complexity due to client clearing and sponsored clearing access models. Regarding traditional client clearing models (as opposed to sponsored clearing access), it is important to ensure that the default of a clearing member should not lead to a sudden loss of market access for its clients, especially if repo clearing is mandatory in the affected CCP's jurisdiction. Mandating other clearing members to step in may be one solution, although this may be difficult to implement (the risk appetite and readiness to provide sponsoring might differ across clearing members) and balance sheet constraints may not allow for other clearing members to step in. Aside from having respective rules included in the CCP's rule book, clearing members also need to have sufficient balance sheet capacity to take on new clients.[67] A possible measure for this case could consist in requiring sponsors to have pre-arranged contingency sponsors and porting arrangements, should a sponsoring clearing member default.

In this context, the importance of testing default management arrangements regularly has to be highlighted, both on a stand-alone basis and in cooperation with other CCPs.[68] This ensures that procedures are not just theoretically but also operationally effective under stress. Default simulations or "fire drills" across (repo) markets allow CCPs to assess the readiness of their members, brokers, and internal teams, and to identify weaknesses in execution, coordination, or gaining access to liquidity. Testing also allows market participants and (sponsored) clients to familiarize themselves with CCP protocols, timelines, and communication channels, reducing uncertainty during a real default case/scenario. In the context of repo markets, where positions are likely large, maturities short, and collateral flows complex, timely and predictable execution is essential. Jurisdictions with considerable repo clearing services or mandatory repo clearing should consider making the participation in cross-border CCP and portfolio default management tests mandatory. This is especially important where common clearing members, clients and sponsored participants exist across CCPs.

Considerations with regards to the role of public authorities and market structure

A key question for CCPs and policymakers pertains to whether central banks (and other public/supranational entities)[69] **should become clearing members in CCPs that clear repos** (either via full membership or special access arrangements).[70] The direct participation of a central bank and public entities in the clearing of a key market may lead to increased market confidence and additional activity and market liquidity, aside from diversifying the membership of the CCP. This in turn would likely incentivize further central clearing of repos by signaling the provision of a reliable liquidity backstop in times of stress. Additionally, as the cash

[67] This latter point is of lesser concern for sponsored clearing (in view of the direct relationship between CCP and sponsored client), although the other constraint (different risk appetite of clearing members and therefore reluctance to grant sponsorship) remains pertinent.
[68] Kindly refer to CCP Global CIDS initiative for an example in this respect Default Simulation | CCPG
[69] E.g., Debt management offices, multilateral banks, public banks managing state participations.
[70] E.g., The ECB joined Eurex' and LCH SA's European Central Bank joins LCH RepoClear SA - Securities Finance Times repo clearing services in 2026: European Central Bank to join Eurex Repo market

settlement of repo transactions occurs via RTGS systems mostly operated or owned by central banks, direct central bank engagement with central counterparties may lead to smoother/swift transactions.

However, the participation of central banks and public authorities may lead to moral hazard concerns, if a central bank's direct relationship with a CCP is seen as an implicit *bail-out guarantee* for the CCP.[71] Central banks are also often involved in the oversight of CCPs, which may lead to conflicts of interest, and reputational risks for the central bank, especially in case of bad risk management practices at a CCP. In some jurisdictions, constitutional or statutory rules may also incidentally constrain central bank activities in private markets, reinforcing these limitations. In case a jurisdiction introduced a clearing mandate for repos, the respective central banks might also want to maintain bilateral, direct relationships with banks and broker dealers as an emergency tool in case of a CCP-default.

Central banks and public entities may have constraints with respect to the risk mutualization element that the participation in CCPs entails. This holds especially true, where it pertains to contributing to default funds, or posting margins, which may exceed the operational capability of a central bank/public authority. Central Banks and public entities are unlikely to be willing to participate in the risk mutualization component of CCPs' risk management frameworks, as this would effectively embed them in the mutualized loss structure of private financial institutions. This, in turn, could reinforce the bank–sovereign nexus, which has been a notable concern in past crises.[72] Consequently, it is important that CCPs provide or investigate options which allow public sector entities to access repo clearing markets without needing to pay margins or contribute to the default fund while protecting the CCP itself against any credit risk. To ensure that CCPs are not exposed to undue risks, this is likely to limit central bank and public sector participation to CCPs with special access models and in jurisdictions with only negligible credit risk (i.e., high-income countries).

Where multiple CCPs clear repos and compete within a jurisdiction, it is also important that public entities' involvement is guided by fair and transparent access decisions. Only accessing select repo clearing markets limits the benefits of public sector involvement to platforms provided by select CCPs and thus skews competition. At the same time, access to multiple CCPs, including very small repo clearing CCPs, is likely to involve operational complexities and (excessive) costs and thus must be weighed against the principle of maintaining equidistant relationships with providers of clearing services for government securities repos.

More generally, CCPs will also need to address questions on how to optimize and operationalize efficient arrangements in jurisdictions where multiple CCPs compete for the repo clearing business and thus risk creating disconnected liquidity pools which increase costs and inefficiencies. Bridges between CCPs allow participants to net exposures, transfer positions, and mobilize collateral across CCPs, thereby reducing frictions and enhancing market depth. However, the operationalization of such bridges is a complex endeavor as

[71] This consideration is particularly relevant where repo clearing is mandated and the central bank relies on a repo-based operating framework to supply reserves and steer short-term interest rates.

[72] If public authorities were to contribute prefunded resources to a CCP with predominantly private membership, such resources could be used to absorb losses arising from clearing member defaults under the CCP's loss waterfall arrangements. Public authorities and central banks may also be subject to additional margin or liquidity demands under CCP rulebooks in recovery scenarios (so-called "cash calls"). This implies that public and central bank balance sheets could be exposed to losses originating in a private financial system and be constrained to support the continuity of a privately-owned market infrastructure and its membership, reinforcing the bank–sovereign nexus through contingent exposure.

every CCP will likely be employing propriety rules, risk management and margin models, limiting efficiencies from off-setting and margin optimization strategies.[73]

Well-designed bridges require careful legal, operational, and risk management frameworks to prevent risk transmission from one CCP to another, including regarding reciprocal exposures between interoperating CCPs and the handling of CCP default scenarios (e.g., legal provisions governing close-out rights and procedures where one CCP defaults and the other must manage or assume positions). This is also important in light of the fact that CCPs compete with each other for business and might have different rulebooks and risk margining and management practices. Policymakers may have to consider whether—and under which conditions—interoperability across repo clearing markets should be mandated and, if so, ensure that any such framework is supported by robust regulatory safeguards. In parallel, margining practices should be closely monitored to prevent competitive pressures from driving a race to the bottom among CCPs, which could undermine prudent risk management in a systemically important market.

6. Conclusions

Central clearing of government security repos is set to become more widespread, as regulators, FMIs and market participants seek to strengthen the resilience of repo markets. Following a brief overview of the prevailing market structure and current developments with regards to clearing services for government securities repo markets, this paper provides a structured analysis of the benefits that reinforced central clearing of this asset class might entail. Aside from increased transparency for repo markets and a reduction in systemic risks due to improved risk management practices, central clearing might lead to more liquid, inclusive and innovative financial markets and the CCP(s) that serve it.

Notwithstanding these potential benefits, a move to central clearing of government securities-backed repo markets does not come without its own risks and challenges, especially when introduced via a clearing mandate. These risks arise from the financial system's increased reliance on a single or a limited number of CCPs and the adequacy of their risk management frameworks, as well as potential vulnerabilities for CCPs associated with the introduction of new access models to clearing services. The rationale for central clearing of government securities repo markets would be severely undermined if its implementation led to the undue exclusion or a disadvantage for certain market participants, a reduction in government repo market depth, or higher transaction costs.

Against this background, this paper elaborates on a set of key considerations that CCPs and regulators are set to reflect on when considering expanding repo clearing services in a given jurisdiction. These considerations encompass both the design of clearing access frameworks for market participants and the calibration and testing of default management processes to ensure consistency with the objective of strengthening market resilience. This paper also mentions the importance of clearly defined and transparent roles

[73] Additionally, interoperability arrangements are likely to entail significant legal and supervisory complexity. For example, in the EU, under Article 51 of Regulation (EU) No 648/2012 (EMIR), such arrangements are subject to prior approval by competent authorities, based on a supervisory risk assessment.

for public authorities, as well as effective cooperation arrangements between regulators and FMIs, to ensure that the resulting market structure/infrastructure operates in a robust and efficient manner.

On a concluding note, further work is warranted to enhance transparency and data comparability in repo markets, particularly with respect to centrally cleared activity. At present, disclosures on cleared repo services and transactions vary significantly across CCPs, reflecting differences in reporting practices, granularity and definitions. This heterogeneity impedes cross-jurisdictional analysis and constrains data-driven research, even for well-informed market participants and authorities. Greater harmonization of key terms, metrics, and reporting standards across jurisdictions and CCP would also facilitate a more consistent understanding of market developments. In this context, advancing standardized disclosure frameworks, via the further refinement of Public Quantitative Disclosure (PQD), requirements could support more effective monitoring, improve transparency, and strengthen the analytical basis for future work on (cleared) repo markets.

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