

Jo Braithwaite and David Murphy
**Improving resolvability: partial property
transfers and central counterparties**

**Article (Accepted version)
(Refereed)**

Original citation:

Braithwaite, Jo and Murphy, David (2018) Improving resolvability: partial property transfers and central counterparties. [Capital Markets Law Journal](#). ISSN 1750-7219 (In Press)

© 2018 [Oxford University Press](#)

This version available at: <http://eprints.lse.ac.uk/id/eprint/91333>

Available in LSE Research Online: December 2018

LSE has developed LSE Research Online so that users may access research output of the School. Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. Users may download and/or print one copy of any article(s) in LSE Research Online to facilitate their private study or for non-commercial research. You may not engage in further distribution of the material or use it for any profit-making activities or any commercial gain. You may freely distribute the URL (<http://eprints.lse.ac.uk>) of the LSE Research Online website.

This document is the author's final accepted version of the journal article. There may be differences between this version and the published version. You are advised to consult the publisher's version if you wish to cite from it.

**Improving resolvability:
Partial property transfers and central counterparties**

Jo Braithwaite^{} and David Murphy[†]*

^{*} Associate Professor, Department of Law, LSE, Houghton Street, London, WC2A 2AE, UK. *Email:* j.p.braithwaite@lse.ac.uk (Corresponding author).

[†] Senior Advisor, Prudential Policy Directorate, Bank of England, Threadneedle Street, London EC2R 8AH. *Email:* david.murphy@bankofengland.co.uk

DISCLAIMER

Any views expressed are solely those of the authors and so cannot be taken to represent those of the Bank of England, or to state Bank of England policy. This paper should therefore not be reported as representing the views of the Bank of England or members of the Monetary Policy Committee, Financial Policy Committee or Prudential Regulation Committee.

ACKNOWLEDGEMENTS

The authors would like to thank Geoff Davies, Darrell Duffie and Amandeep Rehlon for insightful comments on earlier versions of the paper. The authors alone are responsible for all views expressed and any errors that remain.

**Improving resolvability:
Partial property transfers and central counterparties**

Jo Braithwaite and David Murphy

KEY POINT

- One of the most significant reforms introduced in the wake of the global financial crisis was the introduction of mandatory clearing for certain standardised ‘over the counter’ (OTC) derivatives. As a result of this policy, central counterparties (CCPs) have assumed a larger role in the global financial system.
- Designing a harmonised regime for the orderly management of failing CCPs is an integral part of post-crisis regulatory reforms but is challenging. This work remains ongoing at the international, regional and national levels. This article seeks to contribute to the ongoing debates.
- The article’s focus is on a particularly appealing resolution tool, partial property transfer. It explains how a resolution strategy using partial property transfer interacts with the typical legal structure of systemically significant CCPs.
- The first thesis developed in this article is that in order for resolution authorities to be able to implement a partial property transfer of a failing clearing service or services while ensuring the continuity of critical service provision, *ex ante* reforms to the organisational structure of some clearing houses should be considered.
- The second is that, to be fit for purpose, the creditor safeguard used in a partial property transfer resolution needs to be framed in terms of the losses at the point of transfer to creditors of the affected clearing service.

- The article offers proposals designed to facilitate effective resolutions in this context. It provides worked examples to illustrate the rationale behind the proposals and to explore how they improve the resolvability of large CCPs.

1. Introduction

One of the most significant regulatory reforms introduced in the wake of the global financial crisis was the introduction of mandatory clearing for certain standardised ‘over the counter’ (OTC) derivatives. The subsequent implementation of this reform across the G20 and beyond represents a ‘paradigm shift’¹ in the regulation of the vast, global OTC derivatives markets.²

As a result of this policy, central counterparties (CCPs) have assumed a larger role in the global financial system. There are important benefits associated with clearing, but the corollary is that the failure of a major CCP could now pose a grave threat to financial stability. While some jurisdictions have already introduced measures seeking to mitigate this threat,³ given the cross-border nature of clearing services, it is widely recognised that a globally co-ordinated approach is required. Regulators worldwide are therefore currently engaged in designing and consulting on a harmonised regime to manage distressed and failing CCPs. Following the regime introduced in the banking sector after the global financial crisis to address stressed institutions, these proposals focus on the processes of recovery and resolution.

The purpose of this article is to contribute to the ongoing debate about the design of an effective resolution regime for CCPs. Having assessed a broad range of legal and

¹ N Moloney, *EU Securities and Financial Markets Regulation* (3rd ed, 2014) 576

² For a jurisdiction-by-jurisdiction comparative overview of implementation of mandatory clearing and associated reforms of the OTC derivatives markets, see Financial Stability Board (‘FSB’), *OTC derivatives markets reforms: Twelfth progress report on implementation* (29 June 2017) available at <http://www.fsb.org/2017/06/otc-derivatives-market-reforms-twelfth-progress-report-on-implementation/>

³ For example in the UK, in the Banking Act 2009, Chapter 5 discussed further in section 3 below.

operational challenges associated with CCP recovery and resolution in earlier work,⁴ the focus here is on partial property transfer resolutions in the CCP context. This is a type of resolution which, as we show below, may be a particularly important tool to address a distressed systemically important CCP. Some systemically important CCPs have multiple clearing services housed in the same legal entity. This article therefore considers the challenges involved in undertaking a partial property transfer resolution of a systemic clearing service or services within a larger clearing entity, and offers a proposal to ameliorate the process.

Two theses are developed in this article. First, in order for resolution authorities to be able to implement a partial property transfer of a failing clearing service or services while ensuring the continuity of critical service provision, *ex ante* reforms to the organisational structure of some clearing houses should be considered. At their core, these reforms involve a legal separation of each clearing service into a separate legal entity, with an additional entity contracting to provide the services which support clearing (and thus housing the relevant staff, IT systems, and so on).

Second, in order to be fit for purpose, the safeguards for creditors in resolution must be framed with the resolution approach in mind. This means in particular that the creditor losses at the point of transfer in the service being resolved should be the objects of interest in safeguarding a partial property transfer resolution.

The article is organised as follows. Section 2 sets out the context for the main analysis, explaining how the implementation of an effective resolution regime for CCPs is an

⁴ J Braithwaite and D Murphy, 'CCPs and the law of default management' (2017) 17(2) *Journal of Corporate Law Studies* 291; J Braithwaite and D Murphy, 'Get the balance right: public policy and private rights in the post-crisis regime for OTC derivatives' (2017) 12(4) *Capital Markets Law Journal* 480

integral part of post-crisis regulatory reforms. Section 3 discusses recovery, resolution and resolvability generally and in the context of a systemically significant CCP in particular, drawing attention to the importance and ‘appeal’ of partial property transfers for resolution authorities faced with a failing CCP. Section 4 considers the paradigmatic structure of a multi-service CCP and the challenges this poses in the context of a partial property transfer resolution. Section 5 offers a proposal designed to facilitate effective partial property transfer resolutions in this context, and it provides a worked example which develops the thesis. Section 6 concludes.

2. Context: The post-crisis role of CCPs

CCPs are a type of financial market infrastructure which intermediate transactions, acting as buyer to every seller and seller to every buyer for cleared trades. This means that the network of multilateral relationships between market participants in an uncleared market is replaced by a ‘hub and spoke’ arrangement, whereby participants (now ‘clearing members’) transact with the CCP.⁵ In the ordinary course of events, central clearing enables clearing members to net their positions with each other, leading to other operational and risk management efficiencies and improving market transparency. However, some of the most significant benefits accrue when a clearing member defaults. In a bilateral market, each participant is potentially exposed, and each must act separately to manage their position with the defaulter. In a cleared market, by contrast, the CCP acts as a ‘shock absorber’ for the market, managing the net position of the defaulter and deploying pre-funded resources from the defaulter, other

⁵ A Rehlon and D Nixon ‘Central counterparties: what are they, why do they matter and how does the Bank supervise them?’ (2013) Bank of England Quarterly Bulletin Q2, 147.

members and even from its own funds, if necessary, to meet any losses.⁶ This is the core function of a CCP and was one of the principal attractions of central clearing for regulators in the immediate aftermath of the global financial crisis.⁷

As recent research by the Derivatives Assessment Team has shown, the introduction of mandatory clearing alongside other regulatory incentives have increased the use of clearing in the derivatives markets.⁸ Unprecedented levels of transactions are now being cleared, which has, in turn, inevitably heightened the significance of CCPs in the global financial system. The G20-led reforms have therefore provoked an extensive debate about whether CCPs have simply become the new ‘too big to fail’,⁹ whether the benefits of clearing outweigh the risks,¹⁰ and whether, reflecting their new prominence, it would be desirable to

⁶ J Braithwaite and D Murphy, ‘Central counterparties (CCPs) and the law of default management’ (2017) 17(2) *Journal of Corporate Law Studies* 291

⁷ M Carney, ‘Completing the G20 reform agenda for strengthening over-the-counter derivatives markets’ (April 2013) 17 *Financial Stability Review* (Banque de France) 11, 12 contrasting the experience in the bilateral and cleared derivatives markets during the crisis and stating that the ‘better’ performance of the latter ‘provides important lessons for the reform agenda.’

⁸ Financial Stability Board, ‘Incentives to centrally clear over-the-counter (OTC) derivatives: A post-implementation evaluation of the effects of the G20 financial regulatory reforms’ (7 August 2018), Part C.

⁹ For example, P Tucker, ‘Central Counterparties in Evolving Capital Markets: Safety, Recovery and Resolution’ (April 2013) 17 *Banque de France Review* 179; M Paddrick and H Peyton Young, ‘How safe are central counterparties in derivatives markets?’ (2 November 2017) Office for Financial Research Paper 17-06; F Wendt, ‘Central Counterparties: Addressing their Too Important to Fail Nature’ (2015) IMF Working Paper WP/15/21

¹⁰ For the argument that regulators have placed too much confidence in clearing, overlooking the structural weaknesses of clearing houses, see M Roe ‘Clearinghouse Overconfidence’ (2013) 101 *California Law Review* 1641

have the central bank act as a lender of last resort to CCPs.¹¹ The warnings about the consequences of CCP failure running through much of this debate are particularly acute because, despite the fact that far more contracts are cleared today than ever before, there remains a relatively small number of CCPs worldwide. For instance, at the time of writing, there are three CCPs recognised by the Bank of England in the UK¹² and a total of 17 authorised by the European Securities and Markets Authority to operate in the EU.¹³ Moreover, recent analysis conducted by a study group set up by the FSB and other international regulators found high levels of concentration of resources in the largest CCPs and their members. It reported that the largest ten CCPs worldwide accounted for nearly 90 per cent of total financial resources provided to all CCPs.¹⁴

In practice, therefore, if the new policy of mandatory clearing for OTC derivatives is to fulfil its stated objectives of improving financial stability, promoting resilience in the markets and protecting the public from bail-outs, it must be accompanied by regulation to ensure the robustness of CCPs and to provide an effective regime for managing distressed and failing CCPs. This has been widely recognised by regulators: in recent remarks, Benoît

¹¹ C Chamorro-Courtland, 'The Trillion Dollar Question: Can a Central Bank Bail-Out a Central Counterparty Clearing House which is Too Big to Fail?' (2012) 6 Brooklyn Journal of Corporate Finance and Commercial Law 433

¹² Bank of England, 'Financial Market Infrastructure Supervision' available at <https://www.bankofengland.co.uk/financial-stability/financial-market-infrastructure-supervision> (all websites last checked on 19 November 2018)

¹³ European Securities and Markets Authority, 'Central Counterparties' available at <https://www.esma.europa.eu/policy-rules/post-trading/central-counterparties>

¹⁴ Basel Committee on Banking Supervision, CPMI, FSB and IOSCO, 'Analysis of Central Clearing Interdependencies' (9 August July 2018) available at <https://www.bis.org/cpmi/publ/d181.htm>

This study included 26 CCPs from 15 jurisdictions.

Cœuré, a member of the Executive Board of the European Central Bank, has warned that ‘while CCP resolution remains a very unlikely event, the disorderly failure of a major CCP would be disastrous’;¹⁵ while Paul Tucker of the Bank of England observed in 2013, ‘[t]he reforms of global capital markets put clearing houses at centre stage. The system will not be resilient unless the CCPs themselves are safe and sound and capable of orderly resolution.’¹⁶

3. Resolution regimes for failing CCPs

Designing a harmonised regime for the orderly management of failing CCPs is an integral part of implementing the post-crisis regulatory reforms of the financial system. It is, however, challenging in legal, operational and economic terms. Despite having been identified as a priority several years ago, work remains ongoing at the international, regional and national levels.¹⁷ Milestones so far include the 2012 CPMI-IOSCO’s Principles for Financial Market Infrastructures and its additional guidance,¹⁸ which amongst other measures require CCPs to

¹⁵ B Cœuré, ‘A cooperative approach to CCP recovery and resolution: Panel intervention at the ILF conference on ‘Resolution in Europe: The unresolved questions’ (23 April 2018) available at <https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp180423.en.html>

¹⁶ P Tucker, ‘Central Counterparties in Evolving Capital Markets: Safety, Recovery and Resolution’ (April 2013) 17 *Banque de France Review* 179, 184

¹⁷ As discussed in H Huhtaniemi and M Peters, ‘Central counterparty recovery and resolution: The European perspective’ (2017) 6(1) *Journal of Financial Market Infrastructure* 79, 82-84

¹⁸ CPSS-IOSCO, ‘Principles for financial market infrastructures’ (16 April 2012) (‘PFMIs’). Subsequent guidance on CCPs recovery has been published by CPSS-IOSCO including in CPSS-IOSCO, ‘Recovery of Financial Market Infrastructures: Revised report’ (5 July 2017) available at <https://www.bis.org/cpmi/publ/d162.htm>

devise recovery plans;¹⁹ the Financial Stability Board (FSB)'s 2014 version of its Key Attributes of Effective Resolution Regimes for Financial Institutions and its 2017 guidance on CCP resolution.²⁰ In the EU, the European Commission's 2016 proposal for a regulation for the recovery and resolution of CCPs is intended to implement the relevant provisions,²¹ meanwhile amendments to the 2009 Banking Act address CCP recovery and resolution in the UK.

In the remainder of this section, the more developed case of bank recovery and resolution is first considered to set the context for the CCP situation. Resolution objectives and tools are discussed, with attention drawn to the importance and 'appeal' of partial property transfers for resolution authorities faced with a failing CCP. The proposed EU regulation on CCP recovery and resolution is used to contextualise these issues.

¹⁹ The importance of planning for recovery is discussed throughout the PFMI, *ibid*, including at Explanatory Note 3.1.10 to Principle 1 (Legal Basis), and Key Consideration 4 to Principle 3 (Framework for the Comprehensive Management of Risks).

²⁰ This document revised the FSB's 2011 'Key Attributes' document to include new guidance for financial market infrastructures and their participants. FSB, 'Key Attributes of Effective Resolution Regimes for Financial Institutions' (15 October 2014) available at <http://www.fsb.org/what-we-do/policy-development/effective-resolution-regimes-and-policies/key-attributes-of-effective-resolution-regimes-for-financial-institutions/>

The latest development at FSB-level is the publication of a consultation paper designed to inform ongoing work: FSB, 'Financial resources to support CCP resolution and the treatment of CCP equity in resolution' (15 November 2018) available at <http://www.fsb.org/2018/11/financial-resources-to-support-ccp-resolution-and-the-treatment-of-ccp-equity-in-resolution/>

²¹ Proposal for a Regulation of the European Parliament and Council on the framework for the recovery and resolution of central counterparties and amending Regulations (EU) No 1095/2010, (EU) No 648/2012, and (EU) 2015/2365 (COM(2016)0856; C8-0484/2016; 2016/0365(COD)). ('EU Proposed Regulation').

3.1 Bank recovery and resolution

The policy initiatives to address failing CCPs centre on the concepts of recovery and resolution, which were originally introduced for banks.²² Recovery involves a failing entity implementing a pre-agreed recovery plan, based upon a more powerful set of tools than it would ordinarily deploy, in order to continue to operate in the faces of losses which have overwhelmed its resources.²³ In the CCP context, recovery involves the exercise of contractual rights. These typically include the CCP's ability to call for additional resources from members to refill its loss absorption capacity after losses and to reduce variation margin payments (in a process known as variation margin gains hair-cutting) to reduce cash outflows during distress. These tools remain controversial, in particular to the extent they have the potential to shift losses and liquidity stress from the CCP to the non-defaulting users of the clearing service.²⁴

By contrast, resolution is characterised by the involvement of a public sector resolution authority ('RA') which steps in to manage the failing entity. Resolution must be

²² For the argument that it is of 'limited use' to borrow from the banking sector in this context, see M Singh and D Turing, 'Central Counterparties Resolution: An Unresolved Problem' (2018) IMF Working Paper No 18/65, 8. The comparison is discussed further in M Manning and D Hughes, 'Central counterparties and banks: Vive la difference' (2016) 4(3) Journal of Financial Market Infrastructures 1.

²³ CPSS-IOSCO, 'Recovery of Financial Market Infrastructures: Revised report' (5 July 2017), section 4 (Specific recovery tools for FMIs) 16-29, available at <https://www.bis.org/cpmi/publ/d162.htm>

²⁴ For example, BlackRock, 'Viewpoint: Resiliency, recovery and resolution: Revisiting the 3 Rs for central counterparties' (October 2016), 7-8 discusses the 'inappropriateness' and 'destabilizing impact' of variation margin gains haircutting pushing losses onto the users of a clearing service.

triggered by a defined process. Once it has been triggered, the RA has additional powers at its disposal to address the situation.²⁵

The intention behind the special resolution regimes which were implemented in the wake of the global financial crisis was to enable the failure of a bank or building societies to be addressed in a more orderly way than was possible under ordinary insolvency legislation. For instance, at the heart of the Special Resolution Regime (SRR) implemented in Part 1 of the Banking Act 2009²⁶ are several resolution objectives which the authorities must have regard to when considering the use of, or while using, their stabilisation powers, namely: ensuring the continuity of banking services; protecting and enhancing financial stability and public confidence; protecting public funds; protecting investors and depositors covered by the Financial Services Compensation Scheme, and (where relevant) client assets; and avoiding interference with property rights in contravention of the European Convention on Human Rights.²⁷

²⁵ Banking Act 2009, s 7. The debates around the suitable ‘trigger’ for resolution are not discussed in this paper, but see J Braithwaite and D Murphy ‘Get the balance right: private rights and public policy in the post-crisis regime for OTC derivatives’ (2017) 12(4) *Capital Markets Law Journal* 480 and the current provisions in the EU Proposed Regulation, Article 22. Note the requirement not only that the RA judges the CCP ‘failing or likely to fail’ but also that resolution is ‘necessary in the public interest to achieve the resolution objectives’. *Ibid*, Article 22(1). In the UK CCP context, these powers are set out in Banking Act 2009, Chapter 5 (ss 89B-89F).

²⁶ The Banking Act 2009, Part 1 has been amended significantly since it first came into force, including as part of the implementation into English law of the EU Bank Recovery and Resolution Directive: Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 Establishing a Framework for the Recovery and Resolution of Credit Institutions and Investment Firms OJ L173/190

²⁷ Banking Act 2009, s 4

Once an entity deemed is failing or likely to fail, and certain specified conditions are met,²⁸ the RA is empowered to pursue one or more stabilisation options for resolving it. The five possible stabilisation options provided by the Banking Act 2009 are transfer of all or part of the business of the bank to a private sector purchaser; transfer of all or part of the business of the bank to a bridge bank (owned by the Bank of England); transfer to an asset management vehicle; the bail-in option; and temporary public ownership.²⁹ The first three of these options involve the transfer of some or all of the business of the failing bank to a transferee. In order to exercise these options, the Banking Act provides resolution authorities with stabilisation powers, including share transfer and property transfer powers.³⁰

3.2 The partial property transfer tool in resolution

It is a defining feature not just of the SRR but of resolution regimes worldwide that they provide authorities with the power to transfer some or all of the business of a failing entity to another company. This enables the business of the entity in resolution is to be split, with only the ‘good’ or viable part transferred to a transferee, leaving the remaining assets and liabilities on the balance sheet of the failing entity, which would usually enter a form of insolvency (in the banking context, the ‘bank administration procedure.’)³¹

²⁸ Banking Act 2009, s 7

²⁹ Banking Act 2009, s 1(3)

³⁰ Banking Act 2009, s 1(4)

³¹ In the banking context, a partial property transfer is one of three resolution strategies planned for by the Bank of England, with the others being bail-in and insolvency. The Bank of England, ‘The Bank of England’s approach to resolution’ (October 2017) available at <https://www.bankofengland.co.uk/-/media/boe/files/news/2017/october/the-bank-of-england-approach-to-resolution>

In the UK, a property transfer by the RA will involve the exercise of ‘property transfer powers’,³² whereby ‘property, rights or liabilities’ are transferred from a failing entity to a transferee.³³ Typically only some property, right and liabilities are transferred; this is a ‘partial property transfer’. There are several examples of this approach in bank resolution, notably the case of the Dunfermline Building Society in March 2009. In this instance, assets and liabilities including £2.3 billion of retail deposits and 34 branches were transferred to Nationwide Building Society, with the remainder of the liabilities staying with the original entity, which entered into a building society administration procedure.³⁴

Partial property transfer is a powerful tool at the disposal of RAs. However it has the potential to compromise bilateral legal relationships between the failing entity and third parties, including shareholders and creditors. In the banking context, these risks have been mitigated by important statutory safeguards, comprising:

- the ‘No Creditor Worse Off’ (‘NCWO’) principle.³⁵ In the context of a partial property transfer, the creditors left behind in the residual entity may be worse off than if the transfer had not taken place and the bank been subject to an ordinary insolvency, depending on how assets and liabilities had been split.³⁶ The NCWO principle requires that compensation is payable to out-of-pocket shareholders and creditors, as determined by an independent valuation, to the sum which would place

³² Banking Act 2009, s 1(4)(b)

³³ See Banking Act 2009, ss 33-48

³⁴ G Davies and M Dobler, ‘Bank resolution and safeguarding the creditors left behind’ (2011) *The Bank of England Quarterly Bulletin* Q3 213, 221.

³⁵ Banking Act 2009 (Third Party Compensation Arrangements for Partial Property) Order 2009/ 319. The limits of this provision in the CCP context is discussed in more detail in Braithwaite and Murphy (n 25)

³⁶ See a worked example (in a banking context) at Davies and Dobler (n 34) 217

them in the position had transfer not occurred. In the banking context this sum is met by the Treasury, which is entitled to seek a contribution from the Financial Services Compensation Scheme; and

- statutory restrictions constraining partial property transfers in the context of certain contracts. These restrictions limit the RA's powers to disrupt certain netting, set-off and collateral arrangements, so that it will not be possible to transfer some but not all of such arrangements.³⁷ In this way, resolution regimes try to strike a balance between providing authorities with the powers needed to pursue the resolution objectives, and the broader aim of upholding contractual certainty for financial market participants.³⁸ Specifically, the restrictions seek to provide certainty around the key legal techniques which underlie credit risk mitigation in the financial markets.³⁹

3.3 CCP resolution: Objectives under the proposed EU regime

The purpose of the CCP regulatory framework currently under discussion internationally is to improve on the current legal framework by creating a set of bespoke rules specifically for CCPs, which can provide the basis for a harmonised approach across different jurisdictions. As noted at the start of this section, milestones in the international work on CCP recovery and

³⁷ Banking Act 2009 (Restriction of Partial Property Transfers) Order 2009/322, section 3. In the context of UK CCPs, see Banking Act 2009 (Restriction of Partial Property Transfers) Recognised CCP Order SI 2014/1828.

³⁸ During the design of the banking resolution regime, there were widespread concerns expressed by financial market participants and their advisers about the disruption and uncertainty that may be caused by partial property transfers absent such protections; see, for example, Allen & Overy 'Special Resolution Regime: Safeguards for Partial Property Transfers: Allen & Overy's response to the Treasury's November Consultation' (9 January 2009)

³⁹ These complexities generated by these restrictions are discussed in the context of the Dunfermline Building Society's swaps and hedging arrangements in Davies and Dobler (n 34) 220.

resolution include the European Commission's 2016 proposal for a regulation for the recovery and resolution of CCPs, which is currently before the European Parliament.

Article 21 of the EU Proposed Regulation describes the objectives of the CCP resolution regime as follows:

- a) to ensure the continuity of the CCP's critical functions, as identified in the CCP's recovery plan, in particular:
 - i) the timely settlement of the CCP's obligations to its clearing members;
 - ii) continuous access of clearing members to securities or cash accounts provided by the CCP and securities or cash collateral held by the CCP on behalf of those clearing members;
- b) to ensure the continuity of the links with other financial market infrastructures which, if disrupted, would have a material negative impact on financial stability or the timely completion of payment, clearing, settlement and recording functions;
- c) to avoid a significant adverse effect on the financial system, in particular by preventing contagion of financial distress between financial institutions and by maintaining market discipline;
- d) to protect public funds by minimising reliance on extraordinary public financial support;
- e) to minimise the cost of resolution on all affected stakeholders and avoid destruction of the CCP's value.⁴⁰

⁴⁰ EU Proposed Regulation, Article 21(1). See also the Explanatory Memorandum to the EU Proposed Regulation at [1.2], referencing FSB, 'Essential Aspects of CCP Resolution Planning' (16 August 2016) available at <http://www.fsb.org/wp-content/uploads/Essential-Aspects-of-CCP-Resolution-Planning.pdf>; and CPMI-IOSCO, 'Consultative Report: Resilience and recovery of central counterparties (CCPs): Further guidance on the PFMI' (August 2016) available at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD539.pdf>

Looking more broadly, as the Explanatory Memorandum to the EU Proposed Regulation emphasises, the overriding regulatory goal of a resolution regime for CCPs is ‘to protect vital critical functions without exposing taxpayers to loss in order to preserve the ability of the financial system to fund economic growth and avoid the socio-economic costs of a financial meltdown.’⁴¹ Therefore, as is the case with the regime implemented in the banking sector, the ultimate purpose of these measures is to provide an alternative to a liquidation which better safeguards the interests of financial system as a whole.

3.4 CCP resolution: tools

There is a measure of consensus between international regulators regarding the nature of the resolution tools which should be available for the resolution of CCPs.⁴² These largely follow the tools available for bank resolution. Article 27 of the EU Proposed Regulation, describes them as follows:⁴³

- a) position and loss allocation tools;
- b) write-down and conversion tool;
- c) sale of business tool;
- d) bridge CCP tool;

⁴¹ EU Proposed Regulation, Explanatory Memorandum [1.1], 3.

⁴² Huhtaniemi and Peters (n 17) 83-84

⁴³ EU Proposed Regulation, Article 27(1). It should be noted that a) and b) are tools to balance the clearing service’s book and absorb losses, which c) and d) are tools to complete resolution after a re-balance.

- e) any other resolution tool consistent with Articles 21 and 23.⁴⁴

Furthermore, Article 27(2) of the EU Proposed Regulation allows for the provision of public financial support (i.e., for a ‘bail-out’) if there is a ‘systemic crisis’, but only if there is a ‘comprehensive and credible’ plan for the recovery of these public funds.

In theory, these provisions amount to a very extensive set of powers for a RA.⁴⁵ They are balanced by safeguards and restrictions, as in the Bank case discussed in section 3.2. Specifically:

- The NCWO safeguard whereby if creditors are worse off than they would have been had the CCP been subject to an ordinary insolvency, they can apply for compensation; and
- Restrictions which forbid the RA from disrupting certain netting, set-off and collateral arrangements.⁴⁶

3.5 CCP resolution: systemically important CCPs and the attraction of partial property transfer

One of the most serious cases when CCP resolution might be contemplated occurs when:

- the RA is seeking to pursue the regulatory aim of ensuring the continuity of provision of critical clearing services; and

⁴⁴ Article 21 sets out the resolution objectives and is reproduced in the text accompanying n 40 above. Article 23 sets out ‘General principles regarding resolution’ including that the CCP’s contractual obligations and recovery plan should be enforced partially or in full, unless the RA determines otherwise.

⁴⁵ The proposed regulation also contains a ‘catch all’ provision in Article 27(1)(e) which further extends the powers of the RA.

⁴⁶ These safeguards are set out in EU Proposed Regulation, Articles 60-67.

- the failing CCP is of systemic significance so that it meets the public interest condition for resolution.

In this situation, while a RA may, in theory, have the statutory power to transfer all of a failing CCP's business to a competitor, this may not be a viable solution due to the size and complexity of the entities involved and the very limited number of potential acquirers. Similarly, the theoretical possibility of a state-backed CCP (the so-called 'bridge CCP tool') stepping in to take over a failing large CCP seems unlikely in practice, not least due to the risks and operational complexities involved and the speed required. A bail-out by a central bank as not just lender but also equity provider of last resort is likely to be undesirable as it undermines one of the justifications of the post-crisis reforms, that of avoiding taxpayer bailouts. This approach might also raise legal difficulties under current legislation in key jurisdictions.⁴⁷ The debate about the shape of a CCP resolution framework must therefore consider the potential for a mis-match between extensive statutory powers which have been largely transposed into this regime from a different sector, and the limited options available to a RA if it were actually to be faced with a failing systemically important CCP.

One important practical consideration here is that a number of systemically important CCPs have more than one clearing service in the same legal entity. Stress might affect one or more of these services, while others remain unaffected. The authorities might therefore wish to take a different approach to different services. Furthermore, some form of partial property transfer of part of a CCP's business could allow near-continuous access to the transferred service or services.⁴⁸ For these reasons, the resolution of a systemically important, multi-

⁴⁷ Chamorro-Courtland (n 11)

⁴⁸ Business continuity is expressly included as a resolution objective in sub-clauses (1)(a) and (1)(b) of Article 27 as cited above, but is as implied by other objectives in the EU Proposed Regulation.

service CCP is likely to involve a partial property transfer. However, difficulties can arise in the use of this strategy, as we discuss next.

4. The structure of some CCP legal entities and its consequences

The starting point for thinking about the resolvability of a CCP from a partial property transfer perspective is to consider the typical structure of a multi-service CCP. There is, however, relatively little discussion in the literature about the group structure of CCPs generally, and even less about how this structure may affect resolution. Exceptions include Duffie’s discussion of various ways in which CCPs may be structured, which highlights the importance of close-out netting for members across services should the CCP fail,⁴⁹ and the discussion of the difference between banking and CCP group structures by Huhtaniemi and Peters, who express concern that resolution should not break up netting sets and signal this as an issue which should be taken into account by regulators.⁵⁰ The practical implications for resolvability mean that this aspect of a CCP’s business merits further attention.

4.1 Multi-service CCPs

Figure 1 presents a stylised illustration of a typical large multi-service CCP. This structure comprises a single legal entity.

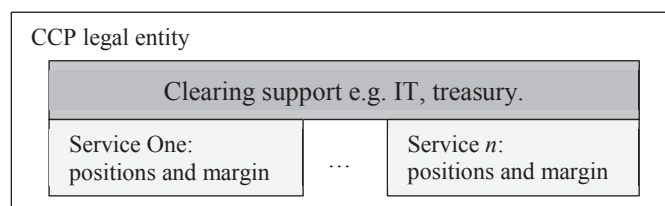


Figure 1: Illustration of a typical large multi-service CCP

⁴⁹ D Duffie, ‘Resolution of Failing Central Counterparties’ (17 December 2014) Stanford University Graduate School of Business Research Paper No 15-12, 9 Available at SSRN <http://dx.doi.org/10.2139/ssrn.2558226>

⁵⁰ Huhtaniemi and Peters (n 17) 96.

Figure 1 shows that the same legal entity, which includes the one or more clearing services, also provides all of the necessary infrastructure allowing the services to clear. This comprises the assets, services and staff relating to IT, treasury, risk and collateral management functions ('clearing support') which support day-to-day operations. Position and margin are accounted for by each of the multiple clearing services. Article 42 of the European Market Infrastructure Regulation⁵¹ permits a CCP to establish a separate default fund for each class or classes of instruments cleared, or to maintain a single default fund.

4.2 Netting for multi-service CCPs

A typical multi-service CCP offers netting on a going concern basis *within* services but not *across* them. Thus margin is calculated in each service separately based on each member's (or, strictly, each clearing account's) net position within the service. However, in the event of bankruptcy of the legal entity under ordinary insolvency law (assuming no special resolution regime is also possible) each clearing member would be able to net its claims against all the clearing services in the entity, and any other claims (for instance arising from bilateral contracts with the CCP's treasury).

This netting of claims *at the legal entity level* in turn has consequences for the counterfactual used to calculate if any NCWO compensation was payable in a partial property transfer resolution. It means that the outcome of resolution for each clearing member would be assessed against their net claim on the legal entity, not on the clearing service or services being resolved. Compensation would be payable on the basis of the NCWO principle

⁵¹ Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC Derivatives, Central Counterparties and Trade Repositories OJ L 201/1 ('EMIR')

where the outcome under ordinary insolvency rules was better for the clearing member than that under resolution. This scenario is advantageous for the compensated member(s), but it may threaten the resolution authorities' ability to conduct a partial property transfer resolution of a systemic service while leaving a non-systemic one 'behind' in the original legal entity.

As a simple illustration of the issue, consider a CCP with two services in a legal entity, both of which have full tear-up in their rule book.⁵² Consider two clearing members, A and B, who only have cleared claims. If tear-up happens before ordinary insolvency, then neither clearing member has a loss in bankruptcy. Now consider a partial property transfer resolution of Service 1, with Service 2 'left behind' and torn-up. In practice, this would involve the transfer of the positions and margin of the members of Service 1 to the transferee, as well as the default fund rights and liabilities of the members of Service 1.⁵³

If clearing member A owes the Service 1 but is owed by Service 2 which is left behind, it suffers in resolution, and will have a claim under NCWO. Table 1 illustrates the losses (gains) in this situation.

⁵² Tear-up is the CCP's power to terminate contracts between the member and CCP in certain circumstances. Full tear-up is the power, usually arising once a CCP's recovery plan has failed, for the CCP to close out the clearing service by terminating all outstanding contracts and paying out any remaining resources to members pro rata.

⁵³ We assume for the purposes of this example that any applicable restrictions to partial property transfers have been observed; see section 3 above. For example, if the CCP has a single default fund for all its clearing services, all or none of the rights and liabilities of the members would have to be transferred, under the Banking Act 2009 (Restriction of Partial Property Transfers) Recognised CCP Order SI 2014/1828, Article 3.

Legal entity insolvency with tear-up			
Clearing member	Service 1	Service 2	Total
A	0	0	0
B	0	0	0
Total	0	0	0

PPTR of service 1, tear-up of service 2		
Service 1 (transferred)	Service 2 (torn up)	Total
8	0	8
-10	0	-10
-2	0	-2

Table 1: Illustration of the losses (gains) for the insolvency of a CCP after tear-up versus those for the partial property transfer resolution of one service and tear up of the other. (Positive numbers are losses to the clearing member; negative ones are gains.)

It can be seen that while resolution leaves the system better off (by 2, in the example shown), clearing member A suffers a loss of 8 in the partial property transfer resolution versus no loss in insolvency. The issue here is that the tear-up is a contractual tool at the disposal of the CCP. Hence it can impose losses on this clearing member *before* insolvency and thus they are not counted in the counterfactual.

A partial property transfer resolution of a multi-service CCP can also violate the NCWO principle even if tear-up is not used. The worked example in the appendix gives an example of how this can occur.

There are significant operational issues which threaten a partial property transfer resolution approach too. In particular, there is no separate service company which is remote from any failing entity or entities. Assuming the transferee was not another clearing house with sufficient infrastructure to support the transferred service, a partial property transfer would therefore have to either transfer all or no clearing support. The former would deprive the non-systemic services left behind of their infrastructure; while the latter would move critical services to a new entity without any such support.

Neither the problems arising from netting at a legal entity level, nor the operational difficulties associated with having a support services embedded in the single legal entity in resolution could be satisfactorily overcome by contractual drafting in a CCP's rule book. As a result, the paradigmatic large CCP legal entity structure constrains the RA's capacity to pursue its resolution objectives, most notably, that of ensuring the continuity of critical clearing service provision.

5. A proposal to facilitate effective partial property transfer resolution

As discussed above, a partial property transfer resolution involves transferring viable assets and liabilities from a failing entity to a new entity. In the context of central clearing, this would continue to provide critical clearing functions. Clearing support must be therefore be available to the transferred service. The proposal which follows balances the need for a new entity to have access to clearing support while keeping the structures involved as simple as possible.

5.1 Designing a CCP group structure for resolvability

The starting point for our proposal is to have a structure whereby clearing support sits in a service company ('ServCo') while each clearing service sits in its own operating company ('OpCo'). This proposal is developed below on the assumption that it is the OpCo which is failing rather than ServCo: the issue of ServCo's failure is considered in section 5.3 below.

If a CCP offers one clearing service only, there would be a single ServCo and a single OpCo. Where a CCP offers multiple clearing services, a single ServCo would provide clearing support for all of the OpCos. ServCo enters into and maintains service level agreements with each OpCo, employs personnel and provides IT support. Crucially, there is no privity of contract between ServCo and the clearing members, and the ServCo does not have any assets or liabilities relating directly to the clearing activities of members. Clearing

members contract with the OpCo or OpCos on the terms defined by the clearing services' rule book, and the OpCo manages and retains members' margin and owns the default fund in relation to that clearing service.

In the ordinary course of events, these structural changes would have little impact. As with the structure in Figure 1 above, there would be no cross-service operational netting, and clearing support would still be provided across the CCP's multiple clearing businesses on a centralised basis. Client clearing, whereby clients access clearing through a clearing member would also be unaffected. However, as outlined below, these measures would mean that any stress caused by the default of a clearing member would be confined to the OpCo or OpCos with which the member cleared. ServCo and the parallel clearing businesses would be protected from the effects of any losses at OpCo-level, and the continuity of service provision is easier to maintain. Figure 2 illustrates this structure, giving the example of a CCP with two services clearing different classes of OTC derivatives in separate OpCos.

5.2 Creating and capitalising a new operating entity

There is a detailed literature which addresses the build-up to, and triggers for, resolution in the context of a CCP and these aspects of the process are therefore not discussed further here.⁵⁴ This section therefore assumes that there has been a clearing member default or defaults, the CCP's recovery plan has not been successful for the service cleared by an OpCo, the statutory conditions for resolution have been met, and the RA has decided to conduct a partial property transfer resolution. It should also be noted that this proposal means that the resolution determination concerns the relevant OpCo only, rather than the whole legal entity as portrayed in Figure 1.

⁵⁴ As discussed in Braithwaite and Murphy (n 25).

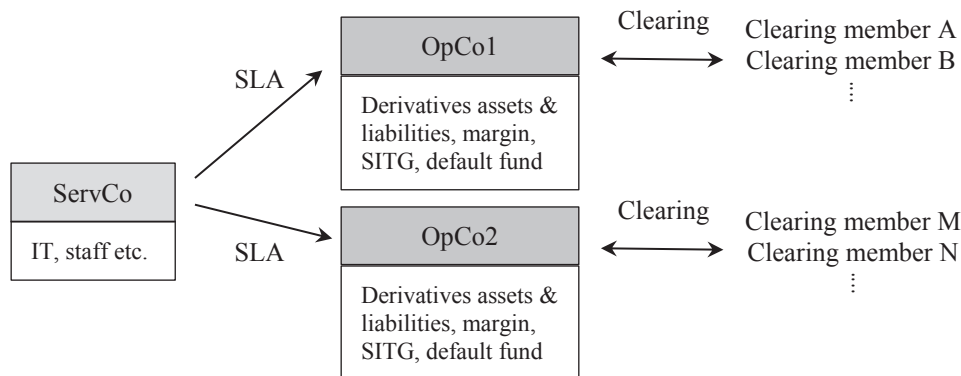


Figure 2: Stylised illustration of a ServCo/OpCo structure for an OTC derivatives CCP with a service level agreement (SLA) determining the clearing support provided

Under the terms of this proposal, the first step in the resolution process would be for the RA to set up a new entity to provide clearing services ('NewOpCo'). NewOpCo must be able to make use of the services of ServCo under the same terms as OpCo did in order to ensure the continuity of clearing business. Accordingly, the RA should require ServCo to enter into a similar SLA with NewOpCo as it had in place with OpCo (see Figure 3 below). NewOpCo would have to be 'recognised' by the appropriate regulator as a CCP for the purposes of EMIR.⁵⁵

Resources will be necessary to capitalise NewOpCo. One obvious means of obtaining these resources is an additional cash call on the clearing members of OpCo. This 'RA call', as it is sometimes termed, can also serve to provide a default fund for NewOpCo. In return, contributing members receive equity in NewOpCo.

The situation at this stage in the resolution is illustrated in Figure 3. For simplicity of illustration, we confine this and future figures to a single OpCo.

⁵⁵ In the UK, this is provided for in existing legislation: see Banking Act 2009, s 89E

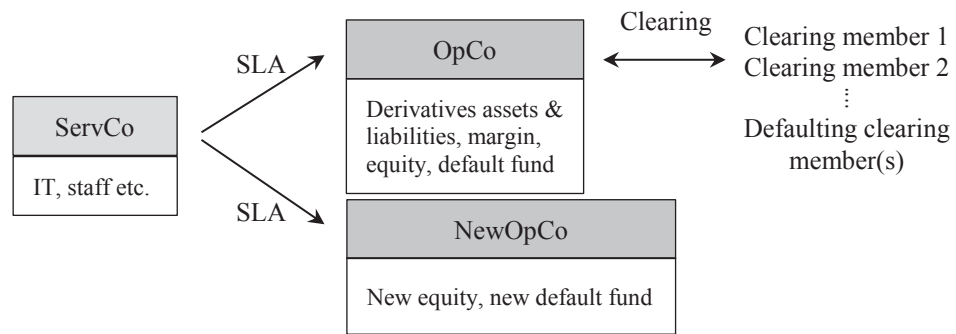


Figure 3: Illustration of the creation and capitalisation of a new clearing entity

5.3 Preparations for transfer

CCP stress can occur through a number of mechanisms of which two are relevant here. The first is the default of one or more clearing member. Resolution can only be completed once the magnitude of the loss to the CCP is known. The loss might have been crystallised before resolution, and indeed its size might be the trigger for resolution. Alternatively, the CCP's failure to close out the defaulter(s) positions might be an important factor in causing the RA to intervene. In this situation the RA will attempt to determine the loss by holding a final auction of the defaulter's portfolio with OpCo. If this is successful, then OpCo's position is rebalanced and resolution can proceed. If not, then the RA will use CCP rule book powers such as tear-up or forced allocation to balance the book.

The second CCP stress mechanism is non-default loss. This can manifest itself in diverse forms. Table 2 sets out some of the potential scenarios and the affected entities.

Non-default risk	Entities affected	Notes
Custodial and investment risk	OpCo	OpCo invests cash margin posted to it.
Legal risk on use of rulebook powers	OpCo	OpCo has the contractual relationship with clearing members.
Fraud/rogue trader in CCP treasury department	OpCo, ServCo	The investments would typically be made on OpCo's behalf by a trader employed by ServCo.
IT or risk system issues including cyber risk	OpCo, ServCo	OpCo could be sued by members e.g. for failure to perform on its clearing agreement; ServCo could be sued by OpCo for failure to perform under the SLA.
Failure by ServCo to perform	ServCo	ServCo's most material contract is likely the SLA.

Table 2: Some causes of non-default losses at clearing services and the entities they would typically affect in a ServCo/OpCo structure

It can readily be seen that while some of the well-known operational risks in clearing (e.g. investment risk) are born by OpCo, there are risks which could create losses at ServCo. Hence there is a case for both OpCo and ServCo to have sufficient equity to absorb operational risk losses to a high degree of confidence.⁵⁶

⁵⁶ The question of the potential need for a ServCo resolution also arises here. This would only be needed for non-default losses that eroded ServCo's equity and if ServCo's shareholders were not willing to recapitalise the entity. Policy-makers would clearly need to make a judgement as to whether the risk of this justified regulating ServCos and implementing a resolution mechanism for them. For the remainder of the paper, we assume that any losses at ServCo are not sufficient to threaten its viability.

It may be necessary to take measures to ensure that OpCo has sufficient liquidity to perform on its obligations to non-defaulters during the resolution process. These measures include drawing down on pre-arranged lines of credit, central bank borrowing (if OpCo has access to the central bank window), and variation margin gains haircutting.

5.4 The partial property transfer

Once the loss caused by the stress event has crystallised, it can be allocated according to the OpCo's default waterfall.⁵⁷ This will reduce OpCo's own resources. For a default loss, that fraction of OpCo equity which is at risk in the waterfall will be eliminated and the default fund will be reduced or eliminated.⁵⁸ For a non-default loss which cannot be fully allocated, OpCo or ServCo's equity will be used to absorb losses.

The situation after loss crystallisation and allocation is illustrated in Figure 4. The property to be transferred from OpCo is the surviving clearing members' positions and the associated margin, their clearing agreements, and any remaining default fund. This property includes those positions and margin held by OpCo on behalf of its surviving members' clients.⁵⁹ These assets and liabilities are moved to NewOpCo using a partial property transfer. OpCo retains its bilateral relationship(s) with the defaulting clearing member(s).

⁵⁷ As governed by EMIR, Article 45 as implemented by the CCP's rulebook.

⁵⁸ CCPs typically have rule book powers which allow them to call for additional default fund contributions from members. The 'RA call' discussed in section 5.2 above would be such a call which would only be available for use after resolution.

⁵⁹ Again, we assume that the restrictions to partial property transfers are complied with, eg, as regards default fund contributions and secured liabilities.

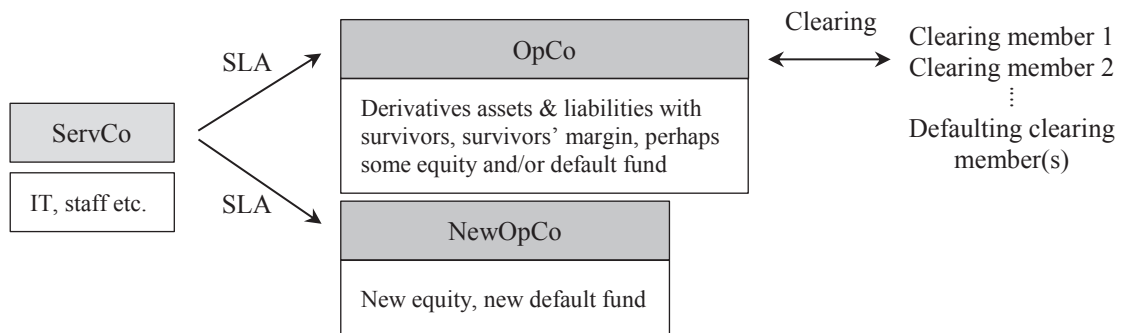


Figure 4: Illustration of the position after rebalancing of OpCo's book

As in the case of the partial property transfers conducted in the banking sector, the legal formalities around the partial property transfer between OpCo and NewCo would depend on the procedures laid down in the relevant legislation.⁶⁰

Figure 5 illustrates the structure after the transfer.

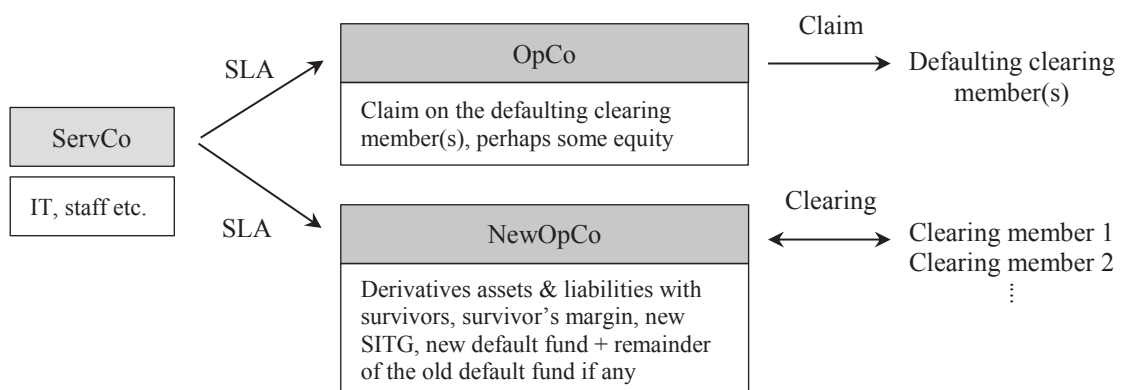


Figure 5: Illustration of the position after the property transfer

⁶⁰ For example, in the case of the Dunfermline Building Society, the property transfer was conducted by the Bank of England who made the required legal 'Instrument' as required by the Banking Act. This was the Dunfermline Building Society Property Transfer Instrument 2009 (in force 30 March 2009) which was later amended by a statutory instrument laid before Parliament by the HM Treasury: Amendments to Law (Resolution of Dunfermline Building Society) No. 2 order 2009/1805. The relevant statutory powers used by the Bank were conferred by, inter alia, Banking Act 2009, ss 11(2) and 12(2).

Because clearing members' positions (or at least those of them that remain after any tear-up) have been transferred from OpCo, as has the associated margin, NewOpCo has all the resources and contracts in place necessary to clear. After authorisation from the national supervisor and subject to meeting other regulatory requirements, which is of course likely to be a much more straightforward process with the SLA in place, it can therefore provide clearing services.⁶¹

5.5 Claims on the entities

If the failure of OpCo has arisen because of a member's default, there may be a significant recovery from the estate of the defaulter(s) in due course. The recovery would be applied in accordance with any requirements of the resolution regime, subject to the RA or other designated regulators' powers to compensate transferors and others.⁶² It would, however, seem appropriate if the RA were to reduce the loss that was allocated using the default waterfall, in reverse order. One way to achieve this is for the surviving clearing members to have a claim on OpCo for the losses they were allocated. If the recovery is sufficient to pay this, any residual amounts would flow to the equity holders of OpCo.

⁶¹ The Explanatory Note to the Banking Act 2009 (Restriction of Partial Property Transfers) Recognised CCP Order SI 2014/1828 states: 'The continuity powers allow for the Bank of England to take action to require companies within the same group as the RCCP in respect of which the parties property transfer has been made to continue to provide services and facilities to the acquirer of the transferred business in order to enable it to operate that business effectively'. This power would enhance the ability to impose the SLA between ServCo and NewOpCo, but it is not strictly necessary.

⁶² In the UK context the Banking Act, s 89F provides that 'The Treasury may by order make provision for protecting the financial interests of transferors and others in connection with any transfer under this Part...'

If there is a shortfall in sums recovered by OpCo from the defaulter, the future of OpCo would depend on the relevant insolvency law. The analogy with the banking context would suggest an application of a special administration process.

After the transfer, OpCo no longer clears, so its SLA with ServCo can be terminated.

Figure 6 illustrates the situation while a claim on the defaulter’s estate is in progress.

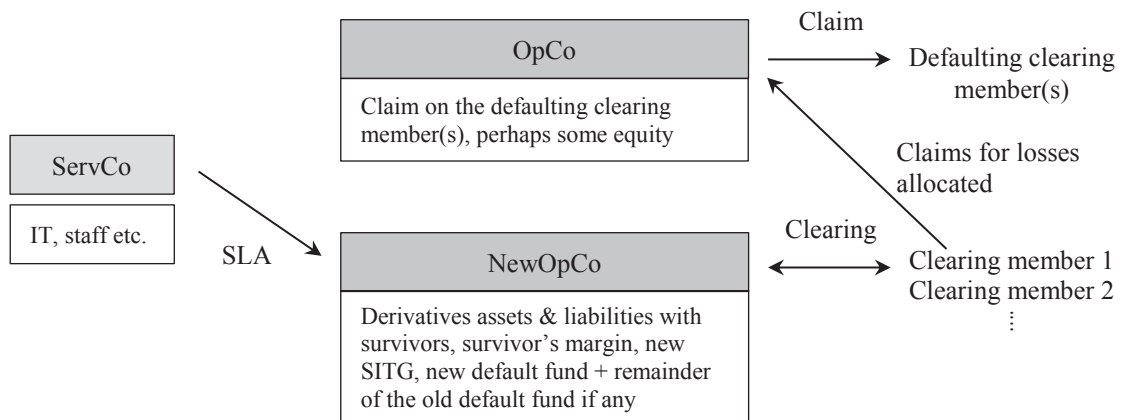


Figure 6: Illustration of the position after resolution

5.6 Creditor safeguards

The discussion in section 3 above highlighted two types of safeguards associated with partial property transfers, namely NCWO compensation and the statutory restrictions. The proposal outlined in this section of the paper does not raise new issues of principle as regards these two safeguards. However the new structure would have practical implications for both creditors and shareholders of OpCo which we discuss in this section and the next.

It is reasonable to use bankruptcy as the counterfactual in the NCWO safeguard in bank resolution since it leads to reasonably well-defined outcomes: bank resolution authorities can estimate the likely loss allocation in this situation and use it to guide their

decision making.⁶³ In the CCP context, bankruptcy is less useful as the counterfactual because the loss allocation can vary dramatically depending on the timing of bankruptcy, whether CCP rule book powers such as tear-up are used before it, and what other claims there are on the assumed bankrupt entity. The safeguard should refer to an assumed failure at the point at which the failing services' book has been balanced as this is the state immediately before any transfer. The assumption of the winding-up of the affected clearing service rather than a legal entity housing multiple clearing services helps to make the creditor safeguard workable in a partial property transfer resolution. Our proposal therefore facilitates the implementation of the safeguard because in this structure, there is a single legal entity, OpCo, which contains the relevant service and little else.

5.7 Equity holders

By definition, a resolution of OpCo should only be triggered if the entity is (amongst other things) failing or likely to fail. Our proposal leaves OpCo's equity holders 'behind' after resolution, with their only substantive asset a junior claim on the defaulter's estate. In our view this is an equitable outcome, as it ensures OpCo's equity holders only profit from resolution once clearing member losses have been met from the defaulters' estate.

6. Concluding thoughts

The proposal for facilitating partial property transfer resolution of CCPs presented in this paper touches on a wide-range of legal, regulatory and technical matters and must be seen in the context of numerous, ongoing policy debates. As such, there are certain matters relating

⁶³ Though the assessment of this type of compensation in the banking context may still be controversial. Note the Northern Rock shareholders' use of human rights-based arguments to (unsuccessfully) challenge the valuation of their shares when the bank was nationalised in 2008: *SRM Global Master Fund LP & Ors v The Commissioners of HM Treasury* [2009] EWCA Civ 788.

to the proposal which we have reserved for future discussion. In particular, further technical questions arise when factoring in the international nature of clearing business and CCPs. We have, for example, assumed for the purpose of this paper that ServCo, OpCo and NewOpCo are all located in the same jurisdiction. In practice, OpCo and NewOpCo would almost certainly be in the same jurisdiction. We have not considered the implications were ServCo located elsewhere, but we recognise that any form of CCP resolution may require close co-operation between international regulators. Another set of questions are created by the potential for certain types of non-default losses to threaten the viability of the ServCo in the OpCo/ServCo structure proposed. The consideration of a resolution regime for ServCos would require careful analysis of the costs of such a policy given the relatively unlikely nature (although likely severe impact) of a ServCo failure.

With these caveats, this paper has identified and addressed certain barriers to resolvability of a CCP. The specific aim behind the proposal presented in this paper is to facilitate the use of the property transfer resolution tool which, we have argued, is likely to be vitally important in a resolution which seeks to preserve the continuity of provision of clearing services. The intention is to present these new ideas about how to improve the resolution regime for CCPs at what is a pivotal time in this ongoing global debate.

The analysis makes a novel contribution by engaging with precedent from the banking sector and with the practicalities of typical large CCPs' corporate structure. Specifically we suggest the following minimum requirements for resolvability:

- Large CCPs should be structured with one OpCo per service, containing just the clearing service and its associated financial resources and contractual arrangements, and a separate ServCo containing clearing support;
- The ServCo contracts with the OpCo(s) via SLA(s);

- Resolution authorities should have the power to set up new OpCos, to conduct partial property transfers from old to new OpCos, and to require ServCos to enter into SLAs with new OpCos on substantially the same terms as their existing agreements;
- Resolution authorities must have sufficient powers both to balance the clearing service before transfer and to provide adequate financial resources for the new OpCo.
- Finally, the creditor safeguard in resolution should be defined at the service level based on the losses immediately before transfer.

As we have explained in the article, these *ex ante* requirements would improve the resolvability of large CCPs and thereby promote the regulatory objectives of business continuity and financial stability. Analogously with Title I of the Dodd-Frank Act,⁶⁴ the requirements should be underpinned by imposing an obligation on each designated CCP to provide a report to its primary regulator that shows how the partial property transfers could be applied to each clearing service, if resolution arose.

⁶⁴ See for instance Dodd-Frank Wall Street Reform and Consumer Protection Act 2010 H.R. 4173, §115(d)(1) (resolution plans for non-bank financial companies) and 116(a)(4) (reports required of bank holding companies).

Appendix – Example of the violation of the ‘no creditor worse off’ safeguard in a partial property transfer resolution of a multi-service CCP

Consider a CCP with two services and two clearing members as in Table 1. The NCWO safeguard is violated in resolution if any creditor is worse off in insolvency than in resolution. Table 3 illustrates a possible situation where clearing member B loses more (5) on its positions in the bad CCP after a PPTR than it would on the bankruptcy of the legal entity containing both services (4). This could for instance happen because some assets which would have increased the payout to creditors such as B in bankruptcy were transferred in resolution.

Legal entity insolvency				PPTR of service 1, ‘bad CCP’ for service 2		
Clearing member	Service 1	Service 2	Total	Service 1 (transferred)	Service 2 (remains)	Total
A	10	-4	6	9	-5	4
B	-8	12	4	-8	13	5
Total	2	8	10	1	8	9

Table 3: Illustration of the losses (gains) for the insolvency of a CCP versus those for the partial property transfer resolution of one service and remaining in the rump ‘bad CCP’ for the other. (Positive numbers are losses to the clearing member; negative ones are gains.)

This example illustrates that a partial property transfer resolution of a multi-service CCP can be loss-reducing across all clearing members in total without it necessarily being loss-reducing for all clearing members individually.