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Get the Balance Right:

Private Rights and Public Policy in the Post-Crisis Regime for OTC Derivatives

Jo Braithwaite* and David Murphy**

Key points

- The reforms introduced since the 2008 financial crisis have left the OTC derivatives market in a state of hybridity, governed by elements of private and public law and with a wide-ranging set of stakeholders.
- This article explores the implications of this hybridity for the ongoing debate about the recovery and resolution of central counterparties (CCPs) and for rule-making in this area.
- A conflict of rights analysis is applied to five key policy questions (around framing the rules; tear-up; the resolution trigger; the creditor safeguard and the role of equity holders) and potential legal challenges are explored. On this basis, we propose a set of recommendations for the future regime governing CCP recovery and resolution.

1. INTRODUCTION

The reforms introduced since the 2008 financial crisis have left OTC derivatives in a state of hybridity. What was once a largely private, bilateral market, relatively unconstrained by public policy, has been transformed by a variety of regulatory initiatives. The principal ones

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for our purposes are the mandatory central clearing of certain standardised OTC derivatives; higher capital requirements for bilateral OTC portfolios; and the requirement for many parties to post initial margin and exchange variation margin with their counterparties on their OTC derivatives exposures. These reforms have built upon features of the pre-crisis OTC derivatives market, preserving some aspects and modifying others. The result is a legal and regulatory framework which is an amalgam of private and public law elements. The goal of this paper is to explore the implications of this hybridity in the context of ongoing debates about the recovery and resolution of central counterparties (CCPs).

The rest of this section contextualises the reforms that we seek to evaluate, tracing the development of this framework in more detail, and explaining the accretive nature of the post-crisis regulatory regime.

1.1 The pre-crisis OTC derivatives market

OTC derivatives developed as bilateral contracts between counterparties. English law was often selected as the governing law for these transactions, including those between parties in other jurisdictions, because of its long-standing respect for freedom of contract.[1] This use of private law was bolstered by an almost wholly supportive legislative and judicial treatment of the derivatives markets.[2]

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[1] See, for example, Knowles J's recent review of the principles of contractual interpretation under English law, and his conclusion that 'the principles described above provide for an approach that seeks to respect the parties' choice, to understand the commercial context, and to provide certainty and consistency in matters of business.' *GSO v Barclays* [2016] EWHC 146 (Comm) at [27].

[2] The legislative support for netting and other features of financial contracts is assessed in detail in J Braithwaite and D Murphy, Got to be certain: the legal framework for CCP default management processes, (2016) Bank of England Financial Stability Paper Number 37. Exceptions to the 'supportive' approach of the English legislature and courts might include the House of Lords decision in *Hazell v Hammersmith and Fulham B.C.*

This structure allowed the OTC derivatives market to grow enormously from its early days in the 1980s until the 2008 crisis. For instance, statistics compiled by the Bank for International Settlements (BIS) show a compound annual growth rate in the notional outstanding of OTC derivatives at reporting banks of 25% between H1 1998 and H1 2008.[3] The main reasons for this success were:

- a standardised documentation framework for transactions which nevertheless permitted a high degree of customisation of risk transfer arrangements;
- the use of contractual arrangements which mitigated counterparty credit risk, notably collateral posting and close-out netting;
- standard contractual provisions which permitted a non-defaulting party to close-out an OTC derivatives portfolio promptly in the event of non-performance of its counterparty, calculate a termination amount, and apply any collateral available against it; and
- a stable legal framework, comprising legislation supporting these contractual arrangements and a growing body of case law which provided a substantial measure of legal certainty.[4]

1992 2 AC 1, finding interest rate derivatives were *ultra vires* various English local authorities. The disruption to the markets caused by this decision was serious enough to prompt the setting up of what became the Financial Markets Law Committee to identify legal risks to the financial markets.

[3] The outstanding notional in the first period reported, H1 1998, was 72,134B USD: in H1 2008, it was 672,558B. See BIS, Global OTC derivatives market (H12016) at http://stats.bis.org/statx/srs/table/d5.1?p=20161&c= for more details. (All websites last accessed 22 June 2017).

[4] See J Benjamin, *Financial Law* (OUP, 2007) sections II and IV for more details on the effectiveness of the legal framework supporting OTC derivatives, and the important ‘safe harbour’ protections from general bankruptcy law, which are discussed in detail ibid, sub-section 12.1.

It is important not to lose sight of the fact that this framework provided a robust and effective basis for facilitating risk transfer between sophisticated market participants. However, this success was not without cost, as discussed next.

1.2 Vulnerabilities revealed by the crisis

It became clear in 2008 that the pre-crisis norms in the OTC derivatives market had resulted in unconstrained and opaque contracting, creating a web of interconnections between financial institutions worldwide. No regulator had a complete picture of the connections in these markets, while interested third parties, such as bank investors, had little information on the sizes of the exposures to particular parties created by OTC derivatives. These factors proved to be destabilising to the financial system.[5]

A good example of this phenomenon is the case of AIG Financial Products ('AIG FP'). The firm sold a large ($526 billion) portfolio of credit default swaps, essentially taking credit risk via OTC derivatives. As the crisis developed in 2008, mark-to-market losses on the portfolio helped to weaken both AIG FP and the group of which it was a member, while collateral posting obligations exacerbated liquidity stresses when the group started to fail.[6] Bankruptcy was clearly possible. Furthermore, the interconnectedness of the credit derivatives and structured credit markets meant that if AIG FP had failed to perform under its contracts, it may have endangered some of its many counterparties.

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[5] As described in detail in US Financial Crisis Inquiry Commission, *The Financial Crisis Inquiry Report* (PublicAffairs: 2011), Chapter 3 and in Financial Services Authority, *The Turner Review: A regulatory response to the global banking crisis* (FSA, 2009), Chapter 1.1.

[6] For details of AIG FP's portfolio, losses and the bailout see WK Sjostrom Jr, The AIG Bailout (2009) 66 Wash and Lee LR 943.

An AIG bankruptcy would have been a complex process. Indeed, the problems with using insolvency law to address the failure of a systemically important financial institution were graphically demonstrated by the bankruptcy reorganisation of Lehman Brothers a few weeks earlier. They include:[7]

- *the negative impact of wholesale liquidation on entire classes of assets once insolvency proceedings begin*. These 'fire sales' reduce the value of the bankrupt's assets and cause contagious losses as other parties with the same position are forced to mark to market to prices depressed by forced selling by the bankrupt's administrators;
- *speculation about the outcome of insolvency leading to runs on counterparties believed to be exposed either directly or via common asset holdings or both*;
- *the length of time involved*. For example, litigation around the administration of the UK-based broker/dealer subsidiary of the Lehman Group, LBIE, continues nearly nine years after the group went into administration;
- *the delay before insolvency can take be triggered*. Even if this is only measured in hours, markets can move significantly in that period, usually destroying value; and
- *the lack of any requirement to consider financial stability and 'the continuity of banking functions' in insolvency*.[8]

[7] Several of these factors are discussed in J Armour, 'Making Bank Resolution Credible' in N Moloney, E Ferran and J Payne (eds) *The Oxford Handbook of Financial Regulation* (OUP, 2015) 457. See also the discussion in J Coffee Bail-ins versus Bail-outs: Using Contingent Capital to Mitigate Systemic Risk (2010) Centre for Law and Economic Studies: Columbia University School of Law (available at http://ssrn.com/abstract=1675015).

[8] See, eg, B Attinger Crisis Management and Bank Resolution: Quo Vadis Europe? (2011) European Central Bank Legal working Paper Series Number 13, 8 for a discussion of this point.

Given how bad the alternative was, in September 2008 the NY Federal Reserve Bank (with the support of the US Treasury) rescued AIG, injecting both capital and liquidity. The need for this rescue demonstrates the financial stability risks which can be created by OTC derivatives. It is, however, one of the few concrete examples: with hindsight, many of the broader concerns about the systemic risks of derivatives voiced in late 2008 proved not to be justified.[9] Nevertheless these concerns undoubtedly played a role in undermining confidence in many large financial institutions at the time, so there was a powerful case for reform once the immediate crisis had been weathered.[10]

1.3 Objectives of the reform programme

After the crisis, regulators worldwide concluded that the result of individual incentives facilitated by freedom of contract and unconstraining regulation in OTC derivatives was a fragile, opaque and interconnected financial system.[11] The regulatory reform programme summarised at the start of this paper was launched expressly to reduce the risks OTC derivatives posed to the wider financial system; that is, to account for a wider range of rights

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[9] An analysis of the causes of losses across the financial system in the 2008 crisis shows less 5% of losses came from interest rate and equity derivatives, and less than 1% from FX and commodity derivatives together. The major causes of losses were structured credit positions. See Table 5.1 in Financial Services Authority, The prudential regime for trading activities, (2010) Discussion Paper 10/4.

[10] The political context of post-crisis regulatory reforms was also shaped by the fact that once states had bailed out financial institutions, they had political 'capital' to spend on implementing reforms. This is a recurrent feature of the immediate aftermath of financial crises, as discussed in J Coffee, The Political Economy of Dodd-Frank: Why financial reform tends to be frustrated and systemic risk perpetuated (2012) 97 Cornell Law Review 1019.

[11] See, for example, G20, London Summit: Leaders' Statement (2 April 2009) available at https://www.imf.org/external/np/sec/pr/2009/pdf/g20_040209.pdf and post-crisis UK and US reports (n 5).

than just those of the contracting parties.[12] In addition to facilitating efficient risk transfer, important additional objectives were identified,[13] principally to ensure that OTC derivatives market and infrastructure provide continuity of provision of critical economic services, even during periods of financial stress;[14] to enhance financial stability; and to prevent the cost of financial institution distress falling on the taxpayer.[15]

The reforms were designed to promote these objectives by building on the effective features of the pre-crisis market, while seeking to limit its externalities and instabilities. In particular three key aspects of the pre-crisis market were modified in support of these

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[12] As reflected, for example, in the G20's London 2009 Statement, which refers to the fact that leaders 'recognise the human dimension to the crisis' (ibid at [26]) and in the G20's Pittsburgh 2009 Statement which reiterates that 'Far more needs to be done to protect consumers, depositors, and investors against abusive market practices, promote high quality standards, and help ensure the world does not face a crisis of the scope we have seen.' G20 Leaders' Statement (25-26 September 2009) at [12] available at http://www.g20.utoronto.ca/2009/2009communique0925.html

[13] In the EU context, these objectives find expression both in the preliminary work to the main regulatory reforms (see, for example, EU Commission, *Ensuring efficient, safe and sound derivatives markets* (3 July 2009) EU COMM (2009) 332 final, in particular section 5: 'The way forward: New initiatives to improve financial stability') as well as in the regulatory reforms themselves: for example, 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 ('EMIR'), Recital (4).

[14] See, for example, Article 21(1) of the EU Commission draft Regulation on a framework for the recovery and resolution of central counterparties 2016/0365 (COD) (the 'draft CCP resolution regulation'), where two of the five objectives of a resolution of a CCP expressly relate to the continuity of the failing CCP.

[15] This objective is strongly reiterated in the Recitals to the draft CCP resolution regulation ibid, eg, Recital (6).

objectives.[16] First, the use of central counterparties (CCPs) was mandated. CCPs act as a 'shock absorber' to the failure of derivatives market participants and centralise the management of any defaults. They, and their associated risk management practices, reduce the risk of direct contagion from a failing OTC derivatives dealer. [17] Second, trade reporting was mandated to give authorities better information on the interconnectedness created by OTC derivatives trading. Third, increased requirements for the financial resources supporting bilateral OTC derivatives (both in terms of capital and margin requirements) were imposed.

These and related reforms have resulted in the creation of a regulatory hybrid whereby many of the private law aspects of bilateral contracts are retained, but a layer of public policy asserting the interests of a wider group of stakeholders is being imposed too. At the time of writing, some of the rule writing and implementation remains underway, reflecting the profound complexity of this project. It is therefore a pivotal period for the OTC derivatives market.

1.4 The key role of CCPs

The different parts of the post-crisis OTC derivatives reform agenda each bring their challenges. Some, such as changes to the capital requirements for bilateral OTC derivatives, are relatively self-contained. But others necessitate additional reforms. Notably, CCPs cannot fulfil their role in the provision of critical economic functions if they are not robust, including during periods of financial stress. This means that the decision to require many

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[16] For a further discussion of the reform agenda including aspects we do not discuss (such as trade standardisation and exchange or platform trading) see the periodic Financial Stability Board ('FSB') progress reports on OTC derivatives markets reforms available at http://www.fsb.org

[17] A comparative analysis of bilateral and cleared OTC derivatives markets can be found in D Murphy, *OTC Derivatives: Bilateral Trading and Central Clearing* (Palgrave Macmillan, 2013).

transactions to be cleared and to incentivise clearing for others necessarily requires policy changes to enhance CCP safety and soundness.[18] These CCP-related reforms include minimum standards for CCP risk management, disclosure and financial resources,[19] and also the development of a framework to support the continuity of critical clearing services during episodes of CCP stress, the CCP recovery and resolution agenda.[20]

This second is important because, absent special provision, a failed CCP would either have to be bailed out by public funds or enter into insolvency proceedings as an ordinary company. Clearly a bailout would violate the objective of protecting taxpayers, and we have already seen the problems with applying ordinary insolvency proceedings to systemically important institutions, a class some CCPs clearly belong to.

For banks, the public policy response to the shortcomings of insolvency law was a combination of *ex ante* requirements setting out responses to stress, such as recovery plans and a flexible and powerful *ex post* set of tools for authorities through a resolution regime. A similar response was evidently needed for CCPs. As the European Commission

[18] As recognised, for example, in EMIR (n 13) Recital (51), acknowledging that reforms to the authorisation and supervision of CCPs 'are an essential corollary to the obligation to clear OTC derivative contracts.'

[19] See Committee on Payments and Market Infrastructure (CPMI) and Technical Committee of the International Organization of Securities Commissions (IOSCO) *Principles for financial market infrastructures* (April 2012) and the accompanying *Disclosure framework and assessment methodology* available at http://www.bis.org/cpmi

[20] See CPMI-IOSCO, *Recovery of financial market infrastructures* (October 2014) and *Resilience and recovery of central counterparties* (October 2016) available at http://www.bis.org/list/cpmi/index.htm?m=3%7C16%7C570 and FSB, *Guidance on Central Counterparty Resolution and Resolution Planning*, Consultative Document, February 2017, ('the FSB resolution consultation') available at http://www.fsb.org

acknowledged, '[i]n order to prevent these negative consequences of normal insolvency proceedings, it is necessary to create a special resolution framework for CCPs.'[21]

1.5 Claims on CCPs

The motivation for CCP recovery and resolution policy may be similar to that for other systemically important financial institutions, but transposing rules to a new context is not simple. One issue is that CCPs have a distinct liability structure when compared to banks or insurance companies. In particular, they typically take neither deposits nor issue senior debt. Instead, above equity in the creditor hierarchy, there are usually two kinds of claims: first, claims resulting from clearing, ie, net amounts owed by the CCP to its clearing members as a result of the trades cleared and margin and other resources posted ('service claims'); and second, other claims on the legal entity, including those resulting from the investment of cash margin posted to the CCP ('legal entity claims').

As we explain in the discussion which follows, these different types of claims will be affected in different ways by recovery tools and by resolution processes. For example, service claims may be subject to modifications permitted in the terms of clearing contracts, such as the CCP's right to terminate ('tear-up') contracts in certain circumstances.

1.6 Conflicts of rights

Another striking feature of the OTC derivatives market which is fundamental to the analysis in this paper is the many classes of stakeholder, beyond the CCP's clearing members. This generates significant potential for conflict over various aspects of the reform programme. Particular instances of the general question 'how much is it worth paying for something that may enhance financial stability, and who should pay it?' recur frequently, for example.

[21] The draft CCP resolution regulation (n 14), Recital (5).

Moreover, conflict does not just manifest in the high-level debate about OTC derivatives public policy. When the outcome of a particular policy is that a party is worse off than they would be otherwise (for example if ordinary insolvency law applied), they may sue. Given the sums at risk in OTC derivatives market, legal challenges are to be expected after any significant event. Some challenges could even put the reform agenda at risk by creating delay or leading to a ruling that invalidates a particular provision in a CCP rule book. Clearly no rule-maker wants their policy to be ruled ineffective or illegal by a court.[22] Therefore it is important to understand potential legal challenges before they occur. This is particularly the case as the accretive nature of the policy-making process has created a complex framework where different interests sometimes align and sometimes compete. As a result, some of the legal avenues available to a challenger are not obvious without analysis.

The structure of the rest of the paper is as follows. Section 2 describes the policy-making process in OTC derivatives regulation. It summarises the status of each major part of the OTC derivatives reform agenda and introduces the main stakeholders. Section 3 then discusses CCP recovery and resolution in more detail. As noted above, this is an integral part of the post-crisis reform programme. With this in mind, section 4 presents five contested questions in CCP recovery and resolution policy, and section 5 analyses them as conflicts of rights, setting out some of the most significant legal challenges available to stakeholders. Section 6 then concludes with policy recommendations informed by this analysis.

[22] Litigation played a role in the failure of the Paris clearing house in 1974-5, in part because it caused delay and disincentivised settlement with members: V Bignon and G Vuillemey, The failure of a clearing house: Empirical Evidence (2017), 29-30 available at http://dx.doi.org/10.2139/ssrn.2862673

2. PUBLIC POLICY ANALYSIS AND DERIVATIVES REFORM

A stylised model of the policy-making process is helpful in understanding the relationship between public policy objectives, rules, and challenges.[23] In this model:

- a regulatory or governmental body identifies over-arching **objectives**, perhaps in response to exogenous demands;
- this leads to a broad **policy framework**, designed with a view to promoting each over-arching objective;
- detailed **policy proposals** are drawn up, analysed, and usually negotiated and/or consulted upon in dialogue with stakeholders. Eventually a (typically modified) set are adopted;
- **rules** are finalised and then **implemented** according to the applicable institutional requirements; and
- each of these rules has a different impact on **stakeholders**, who may comply and/or challenge the effects. Challenges often test the application of individual rules, but they may also impact on the broader policy framework, for example if a particular aspect of policy proves to unworkable, unlawful or sufficiently controversial in the market.

Figure 1 illustrates this model.

[23] In reality the process is complex, hegemonic and beset by unexpected adaptations, but an idealised model will suffice for our purposes. See for instance J Black, Constructing and contesting legitimacy and accountability in polycentric regulatory regimes, (2008) 2(2) Regulation and Governance 137 for a discussion of these wider issues in the construction of regulation.

2.1 Applying the public policy model to the OTC derivatives reforms

As discussed in section 1.3, the original objective of OTC derivatives market – effective risk transfer – has been supplemented by further objectives of safeguarding financial stability, providing of critical economic functions and avoiding burdening taxpayers. From these objectives flows a new policy framework which seeks to retain the proven features of contractual derivatives relationships and supplement it with trade reporting, measures to promote clearing, enhanced risk management standards for CCPs and the additional measures outlined above in order to protect the rights of other stakeholders.

2.2 The status of the principal OTC derivatives reforms

Many of the post-crisis reforms to the OTC derivatives market have already gone beyond rule-making into implementation. For instance, the clearing mandate has been implemented in most major jurisdictions, and the reforms requiring the posting of initial and variation margin against many bilateral OTC derivatives positions have been finalised and are being implemented in the US and the EU, amongst other jurisdictions.[24] Reforms relating to CCP governance are also progressing, with some implementation monitoring already taking place.[25]

Policy development relating to CCP recovery and resolution, however, remains on-going, with proposals being advanced at both international standard-setting and jurisdictional

[24] For a recent summary covering all elements of the new reforms and comparing progress jurisdiction by jurisdiction, see FSB, *OTC Derivatives Market Reforms: Eleventh Progress Report on Implementation* (October 2016) available at www.fsb.org/2016/08/otc-derivatives-market-reforms-eleventh-progress-report-on-implementation/

[25] See for instance CPMI IOSCO, *Implementation monitoring of PFMI: Level 3 assessment - Report on the financial risk management and recovery practices of 10 derivatives CCPs* (August 2016) available at www.bis.org/cpmi/publ/d148.htm

levels. In this paper we concentrate on the former, as draft legislative proposals broadly follow international standards and final proposals are not yet available.[26]

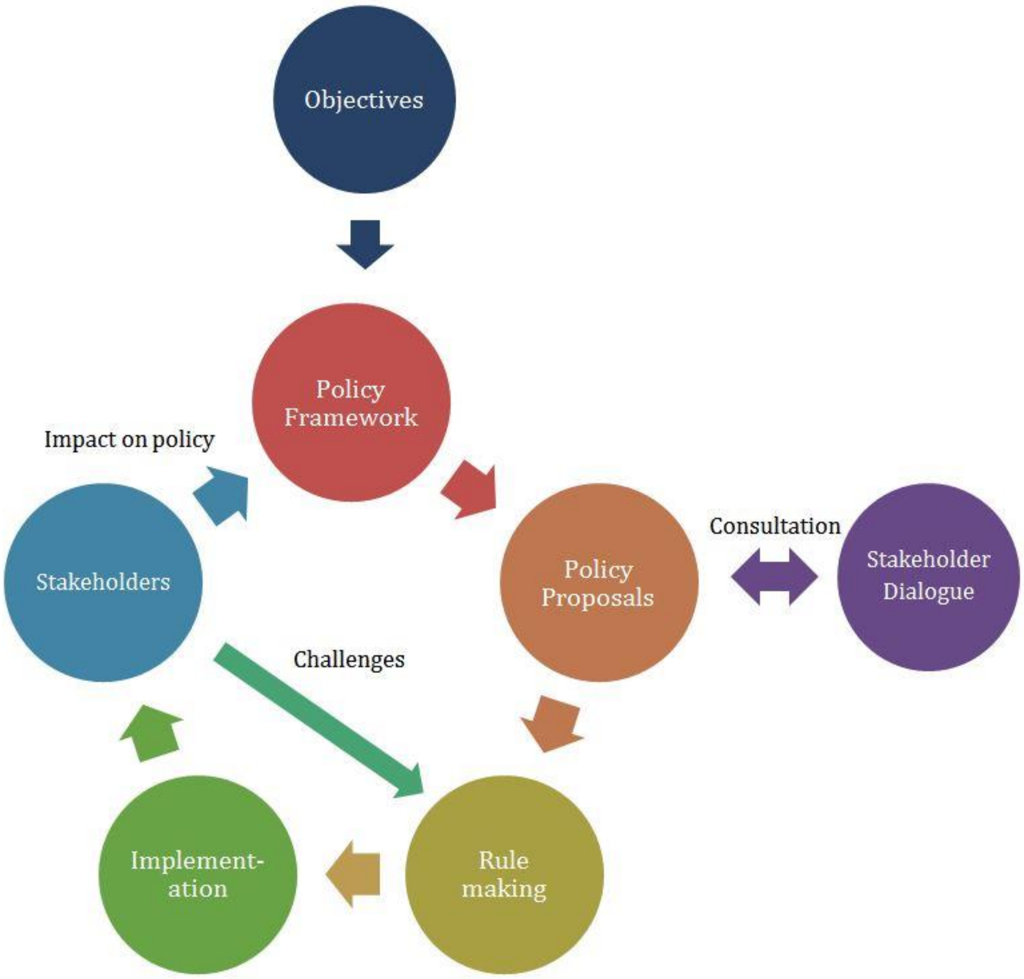

Figure 1 — Illustration of a stylised public policy process

An important source for understanding financial institution resolution is the 2014 Financial Stability Board (FSB) document known as 'Key Attributes of Effective Resolution Regimes'.[27] Initial work focussed primarily on bank resolution, although the document has an annex on Financial Market Infrastructure. Subsequently the FSB produced a more

[26] See for example, the European Commission's draft CCP resolution regulation (n 14).

[27] FSB, *Key Attributes of Effective Resolution Regimes for Financial Institutions*, October 2014, available at http://www.fsb.org/wp-content/uploads/r_111104cc.pdf .

detailed consultative document on CCP resolution, and stated that it 'will continue its work on financial resources for CCP resolution and, … determine by end-2018 whether there is need for any additional guidance'.[28] At the timing of writing we are therefore at the stage in Figure 1 labelled 'Consultation'.

2.3 Stakeholders

One of the reasons that the CCP recovery and resolution rules are being written towards the end of the overall reform process is that they involve so many stakeholders. Central clearing of OTC derivatives involves the CCP and its clearing members who deal with each other directly, according to the terms of their membership agreement, but it also involves parties who access central clearing as clients of clearing members. These clients have a stake in the CCP through an intermediated chain rather than through a direct bilateral relationship. The CCP is often a privately owned or publically traded corporation, so its owners are also relevant too (in particular in any recovery or resolution scenario). Other stakeholders potentially include the CCP's national regulators and others with a regulatory nexus, including the resolution authority (if this is not the primary regulator); regional regulators; and global standard-setters. A further group of interested parties are those with other relationships with the CCP including settlement banks, custodians or inter-operating CCPs. Finally, taxpayers have an interest, as not burdening the public purse is a central objective of the post-crisis reforms.

This wide range of stakeholders means that the debate about recovery and resolution must not only factor in the rights and liabilities of parties in bilateral relationships (where the most straightforward way of enforcing rights will be through contract) but also the numerous, and sometimes conflicting, rights and liabilities which otherwise arise.

[28] See the FSB resolution consultation (n 20), 2.

3. POLICY PROPOSALS IN CCP RECOVERY AND RESOLUTION

Consultation on CCP recovery and resolution rules is underway at the time of writing, at FSB and EU-levels, as previously discussed.[29] These proposals draw heavily from the bank recovery and resolution regime, and this section looks in more detail at their key features.

3.1 Recovery and resolution

Recovery is the first phase of stabilising a stressed financial institution. In the case of a CCP, the entity and its members must formulate plans for recovery which are agreed in advance and which can be implemented if and when necessary. These will typically involve incentives for members to assist the CCP in matching its book, loss allocation mechanisms, and extra contributions from members to the CCP's funded financial resources. This process is implemented contractually through the CCP's rule book, and it will be subject to review from the CCP's national supervisor.

It is only if this recovery phase does not, or seems unlikely to, stabilise the CCP that a resolution authority ('RA') will step in. RAs are public authorities which are charged with pursuing particular statutory financial stability objectives: they have specific tools and powers at their disposal in addition to those available in recovery to achieve these objectives. Triggering a resolution can therefore be seen as a pivot between a private and a public regime. However, as we explain below, the legal perspective suggests that public and private law are relevant to both stages.

The UK banking resolution regime has evolved so that the Bank of England, as RA, now has three stabilisation options: a transfer of all or part of the firm's business to a private sector purchaser; a transfer to a bridge bank; and a bail-in to absorb the losses of the firm and

[29] See, respectively, the FSB resolution consultation (n 20) and the draft CCP resolution regulation (n 14).

recapitalise the failing institution 'in place'.[30] A similar regime has been adapted and proposed for CCPs and other non-financial institutions.

3.2 Policy Proposals for CCPs

The most important elements of the proposed CCP recovery and resolution rules can be grouped into five categories:

- Rules which govern the *recovery phase*; primarily by imposing requirements for CCP's recovery plans and a framework for their assessment by the relevant authority;
- Rules which determine whether *resolution is required*. In the case of a CCP, resolution is contemplated when a clearing house is failing or likely to fail, perhaps because it has lost the market's confidence; when it is reasonably unlikely actions other than resolution (for instance the CCP's own recovery actions or actions directed by its supervisory authority) will restore stability; and when its resolution is in the public interest and in the interests of financial stability.
- Rules which assist in *returning to a matched book in resolution*, including position allocation tools;
- Rules which provide *additional tools or resources to RAs*. In the context of a CCP, these tools consist of loss allocation tools; tools to increase resources, for instance by allowing the CCP to reduce ('haircut') variation margin gains paid to parties who are

[30] Under the Banking Act 2009, which implements the Bank Recovery and Resolution Directive 2014/59/EU. For further detail on the UK regime see The Bank of England, *The Bank of England's Approach to Resolution* (October 2014) available at http://www.bankofengland.co.uk/financialstability/Documents/resolution/apr231014.pdf
The evolution of the bank resolution regime in the wake of the crisis from 'first' to 'second generation' measures is charted in Armour (n 7).

‘in the money’, or by means of a cash call on members reserved for authorities (the ‘RA call’); a write-down and conversion tool (the equivalent of ‘bail-in’); a sale of business tool; a bridge CCP tool; and a ‘catch all’ tool, allowing RAs other powers consistent with the objectives of resolution and, in extraordinary circumstances, allowing access to public finance.[31]

- Rules which provide protection against arbitrary action by the authorities in resolution and other safeguards for stakeholders, such as an equivalent of the banking ‘No Creditor Worse Off’ (‘NCWO’) safeguard,[32] and rules protecting financial collateral and netting arrangements. These safeguards are clear examples where regulators have to decide how to balance conflicting interests of different stakeholders.

The fourth category of rules is particularly worthy of note here: if RAs only have the same tools and resources available to them as were available to the CCP in recovery, then there will be circumstances where they will be unlikely to succeed where the CCP has failed.[33] Therefore there is a good case for extra resources, such as the RA call, and extra tools, such as write-down and conversion, being available to the RA.

3.3 Default and Non-Default Losses

There is also a distinction within the proposed CCP recovery and resolution regime between rules which apply to default-related losses, and those which apply to other causes of stress.

[31] See, for example, Article 27 of the draft CCP resolution regulation (n 14).

[32] See, for example, ibid, Article 62.

[33] Of course, the RA may be successful where the CCP was not if confidence has been lost in the CCP’s management or if other features of authority intervention, such as the ability to provide liquidity to the CCP or to clearing members or both against good collateral, are material. But this will not always be the case.

The latter are collectively labelled as 'non-default losses' but in reality they span very diverse potential causes of a CCP's stress including cyber-attack, fraud and other forms of operational risk.[34] The distinction between default and non-default losses is an important factor influencing how recovery and resolution may unfold in practice, and it complicates rule-making. Figure 2 illustrates this rules 'architecture'.

Cause of stress	*Recovery*	*Resolution*
Default	Balancing book/managing default	Balancing book/managing default
	Absorbing default losses	Absorbing default losses
	Refilling default resources	Refilling default resources
Non-default	Determining the size of a non-default loss and preventing further losses	Determining the size of a non-default loss and preventing further losses
	Absorbing the loss	Absorbing the loss
Any	Recapitalising the CCP	Recapitalising the CCP
	Trigger for resolution	
		Transfer tools
		Safeguards

Figure 2 — Illustration of the structure of CCP recovery and resolution rules

[34] LCH.Clearnet, *Recovery and Resolution: A Framework for CCPs* (2016), 6-7 available at www.lch.com/documents/731485/762444/-and-resolution-a-framework-for-ccps.pdf/ includes nine different scenarios which may trigger risk at a CCP including legal risk, problems with suppliers and failure of a settlement bank. See further discussion of the drafting implications for CCPs' rule books at section 5.1.1 below.

This is one of the features of CCPs which generates challenges for rule-makers as they move into the rule-making phase for CCP recovery and resolution. Others arise from CCPs' public function yet often private ownership, and from the highly diverse range of stakeholders. The next section considers the ongoing debate around a number of these rule-making challenges.

4. RULE-MAKING IN CCP RECOVERY AND RESOLUTION

At the point where CCP recovery and resolution rules emerge from consultation to be framed as binding rules (as set out in Figure 1 above) there will be some acutely difficult decisions facing policy-makers. Policy controversy usually arises because one or more parties are aggrieved at the potential impact of a rule. CCP recovery and resolution is likely to generate sufficiently material grievances that one or more disadvantaged parties are likely to contest the outcome. As we discuss in section 1.6 above, this may result in both technical challenges and have impact on the broader policy framework. Therefore, we argue that it is important to study areas of policy which might offer the most fertile ground for challenges at this phase of the policy-making cycle. The rest of this section sets out five policy questions which are contested and which provide insights into particular types of challenge; the following section discusses the legal issues embodied in each of them.

4.1 How should recovery and resolution rules be framed?

The first policy question concerns how the recovery and resolution toolkit is framed in law. In terms of recovery, this issue turns on the extent to which plans should be regulated in detail by legislation, or whether discretion about the nature of recovery tools should be left to CCPs and set out as they choose in their rule books. In the case of resolution, the issue is whether resolution powers should be provided for in legislation or whether RAs should merely step into the shoes of the CCP and use its contractual rights. In the banking context, the Special Resolution Regime for banks in England and Wales is set out in the Banking Act 2009, and this gives certain specified powers to the Bank of England as RA: in other words, the legislative route was taken. Should the same be done for CCPs?

This question is interesting in particular because it has a bearing on the legal framework for resolution actions. If resolution rules are implemented in the CCP rule book, then the RA primarily conducts a resolution using the contractually-provided tools.[35] Here the boundary between recovery and resolution may be less distinct, since both rely on contractual tools, but resolution action has all the benefits of contractual certainty.[36] On the other hand, contractual certainty may be an illusion if resolution, or indeed recovery, is viewed as a public action, with all the consequences that has for the applicability of the law of public administration, as discussed further below.

4.2 Should tear-up be the final step in the waterfall?

The second question concerns a rule used to manage defaults. 'Tear-up' is the power for the clearing house to terminate contracts and settle them at a price it determines. 'Full tear-up' involves all the contracts in a given clearing service, while 'partial tear-up' terminates only a subset of them. Tear-up is the ultimate tool for managing a clearing member default, in that if it can be applied to all the contracts opposite the defaulter, the result will always be a matched book. However, tear-up inevitably involves market disruption and would likely

[35] There is also a related issue that certain legal protections are accorded to resolution actions: if the RA acts using the CCP's rules rather than statutory powers, there is some risk that that action is judged not to be a resolution action, and hence not protected.

[36] There may also be further benefits in that use of resolution tools can be assumed to happen before bankruptcy, so it may make framing the creditor safeguard somewhat easier. See the discussion in sections 4.4 and 5.4 below.

cause a loss of confidence were it to be deployed as a default management tool, so it should not be invoked lightly.

Many clearing services have full tear-up as a power available to the CCP, although it has not often been used.[37] One aspect of it that is particularly troubling to clearing members and clients is that *any* default loss can be allocated to them depending on the setting of the tear-up price: for instance, if the CCP tears up positions opposite the defaulter at the price at which the last successful margin call was made, there are no losses to the clearing service. In this way, the default management problem, and the losses involved in it, have been passed on by tear-up.

This possibility means that if a CCP has the power of tear-up and full control over the tear-up price, it cannot fail due to default risk. However, just because the CCP is left standing after a default event or events does not mean that continuity of clearing provision is assured, not least because many market participants might be unwilling to use a service which had used tear-up to recover. The policy questions are therefore whether tear-up should be present in CCP recovery rules, whether it should be available only in resolution (where presumably there is less of a risk of the price being set to protect CCP shareholders), or whether its use should be banned in default management.

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[37] Tear-up is typically used to address market disruption. It has however also been used as a CCP recovery tool: see E Budding, R Cox, D Murphy, Central counterparties in crisis: the International Commodities Clearing House, New Zealand Futures and Options Exchange and the Stephen Francis Affair, (2016) 4(3) Journal of Financial Market Infrastructure 65 detailing an episode where tear-up was used as both a book balancing and a loss allocation tool.

4.3 When should resolution be triggered?

Resolution triggers (such as judging the moment when a CCP is 'likely to fail') are necessarily subjective. However, this means that in any given situation of CCP stress, opinions may differ as to whether confidence has been lost, whether financial stability is threatened, and whether the CCP's own actions would, if allowed to proceed, stabilise the entity. There are two types of challenge associated with this issue. The first is for the drafters of legislation in deciding how much discretion to afford to the RA. The second is for the RAs themselves when deciding, within their statutory powers, on the moment to trigger resolution. The latter type of challenge can be illustrated by considering the recovery steps in Figure 2 and the possibility of a resolution action during each of them, as explained by Figure 3.

Clearly if authorities trigger 'early', before many of the CCP's financial resources are used in what may ultimately be ineffective risk management, they risk the challenge that they have unjustifiably interfered with CCP shareholders' property rights (as explored further in section 5); but if they wait, resources may be wasted and costs may be higher. Early resolution could also address a loss of market confidence in the CCP before contagion sets in, decreasing risks to financial stability. The policy questions are therefore around the nature of the triggers that should be included in legislation and how they might be used in practice.

Cause of stress	*Recovery*	*Resolution triggered?*
Default	Balancing book/managing default	'Early' resolution before book is matched
	Absorbing default losses	'Mid period' resolution once the loss is known because loss absorbing resources are insufficient or cannot be refilled
	Refilling default resources	
Non-default	Determining the size of a non-default loss and preventing further losses	'Early' resolution before the total loss is known
	Absorbing the loss	'Mid period' resolution once the loss is known because loss absorbing resources are insufficient or cannot be refilled
Any	Recapitalising the CCP	'Late' resolution because confidence has been lost

Figure 3 — Illustration of the timing of resolution action

4.4 How should the safeguard against arbitrary action by RAs be framed?

We have already seen that the resolution of a systemically important clearing service involves a large enough risk to financial stability that it should not be attempted without a comprehensive toolkit, so RAs need to have substantial powers. In particular they need additional tools over those available in recovery, as otherwise there may be no reason to believe that an authority-led resolution will be successful where a CCP-led recovery has failed. Thus a key component of the proposed resolution toolkit in both default and non-

default[38] stresses is a mechanism for RAs to acquire extra resources to absorb losses and refill the CCP's financial resources, such as a RA call. It is proposed that RAs will also have other powers, perhaps including tear-up and the ability to haircut variation margin gains.
It follows that private sector stakeholders will typically support some constraint on the use of these powers. In bank resolution, one important constraint is the NCWO principle. This safeguard means that any creditor who is worse off in resolution than they would have been in bankruptcy has a claim against the Treasury (which may, in this context, seek a contribution from the industry-funded Financial Services Compensation Scheme) for the difference, which is calculated by an independent valuer.[39]

However, to be useful, a creditor safeguard must be susceptible to calculation at the point of resolution so that the authority can know what the maximum loss it can allocate is at the point of allocation. If a pure NCWO-in-bankruptcy safeguard is applied in the CCP context, difficulties will arise where authorities wish to intervene in a systemic CCP well before the point of insolvency (especially if they wish to avoid the use of tear-up discussed above). Therefore the question is how a safeguard on losses allocated to each creditor should be framed so that it is effective, protects property rights and can be estimated at the point of resolution.

4.5 What is the role of CCP equity holders in recovery and resolution?

In a bank resolution, equity is the first resource in line to absorb losses, and equity holders will also suffer substantial dilution or write-down, especially if debt instruments senior to

[38] Arguably a mechanism to provide extra resources in non-default stress is even more important that in default stress, as the default waterfall in recovery is typically much deeper than the non-default one.

[39] As described in G Davies and M Dobler, Bank resolution and safeguarding the creditors left behind (Q3, 2011) Bank of England Quarterly Bulletin 213, Part 2.

them are ‘bailed in’ in order to recapitalise the bank. CCPs are not banks, and in particular the structure of loss absorbing resources in a CCP involves clearing members. Therefore, the question arises of whether CCP resolution should follow the bank model, and allocated losses to CCP shareholders, with new equity being provided to those who contributed resources to the resolution, or whether some other approach should be taken.

5. CCP RECOVERY AND RESOLUTION: LEGAL CHALLENGES

This section analyses the potential for legal challenges during the recovery and resolution of a CCP, focusing on the five key questions above. As outlined in Figure 1, legal challenges are likely to target specific rules, for example those set out in the CCP rule book, but by doing so, they may also have an impact on policy at a more general level. The effects of a legal challenge may therefore be wide-ranging, affecting many stakeholders beyond those directly involved in the original dispute or in any subsequent litigation.

Given that the final form of CCP recovery and resolution rules remains work in progress, the discussion considers the issues at a high-level rather than commenting in particular draft rules. Moreover, in the absence of finalised rules or of any significant case law from the CCP sector itself, the analysis is informed by three analogous and more developed areas of law. These are, first, the law around defaults, netting and insolvency under bilateral OTC derivatives; secondly, the debate around the legal robustness of a CCP’s processes for managing the defaults of its members; and, thirdly, the recent history of litigation around the recovery and resolution of banks.

The analysis focuses on the position under English law both in terms of the affected CCP and the analogous areas above, whilst acknowledging that in practice the position even in the UK would be complicated by the global nature of transactions and participants in the derivatives market.[40]

5.1 How should Recovery Rules be framed?

The first policy question is whether and to what extent recovery and resolution tools should be provided for expressly in legislation, or implemented through CCPs' rule books. This section considers the legal challenges which may arise in the case of recovery. Sections 5.3 and 5.5 below review the position should a resolution become necessary.

Recovery tools are primarily designed to avoid the need for resolution of the CCP,[41] typically by shifting losses from the CCP to third parties, including members and their clients and indirectly, to stakeholders in these members and clients. The reciprocal benefit for members bearing such losses is the continuity of the clearing service, and avoiding the instability, disruption and potentially far greater risks and losses associated with resolution. Recovery and continuity benefit other parties too; most obviously the CCP itself, its owners who would bear the brunt of the conversion and write-down tools during resolution, and also the wider financial system.

As discussed in section 3.1, recovery may be thought of as the private or 'in-house' rescue of a stressed CCP, because the tools used are those provided for in the CCP's own rule book and because the resources involved come from the CCP's members and their clients. For both these reasons, however, recovery is vulnerable to challenges from members and,

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[40] By way of example, see (n 80) and accompanying text, for discussion of an interim application heard by the English courts following the administration of MF Global, which was complicated by jurisdictional and cross-border legal issues.

[41] See, for example, ISDA, *CCP loss allocation beyond the default waterfall* (August 2013), 7: 'The primary goal should be recovery and continuity rather than resolution.'

indeed, in extreme cases members may decide that the benefits of recovery do not outweigh the burdens and therefore choose not co-operate and risk default themselves. Specifically, there are three main types of challenge that a member may bring in the context of a CCP's use of recovery tools[42] which may be understood as a combination of private and public law-based actions.

5.1.1 Private law challenges

Members may challenge a CCP's recovery plan on the basis of contract law, claiming, for example, that the provisions in the CCP rule book are not clear or complete or that the CCP is in breach of them. The recovery rules are particularly at risk if they are ambiguous or silent on a particular matter. This type of challenge would delay and disrupt the recovery plan, and potentially undermine the ability of the CCP to avoid resolution, thereby deepening losses and exposing a broader range of parties to disruption and loss.

If recovery plans were governed in detail by statute this may minimise, but not necessarily preclude, such challenges because there still may be ambiguities or gaps. Recent litigation in the bilateral derivatives market has included similar challenges to a widely used standard contract where a contract was silent (for example, where the ISDA Master Agreement did not provide for what should happen when an 'in the money' party was affected by an Event of Default that was not possible to cure)[43] and where it was unclear what the words in the contract meant (for example, a $1 billion dispute arose about whether the 'material terms' which had to be taken into account in calculating the 'Close-out Amount'

[42] The statutory protections afforded to CCPs' default rules under English law may protect a CCP from challenges to its recovery plans. In particular, Part VII of the Companies Act 1989 is relevant here. However, the nature of these protections is beyond the scope of this paper.

[43] *Lomas & Ors v JFB Firth Rixson & Ors* [2012] EWCA Civ 419.

under the 2002 ISDA Master Agreement included the value of a side letter).[44] In such cases, the courts will objectively seek 'to determine what the parties meant by the language used',[45] and where there is more than one possible meaning, the law 'generally favours a commercially sensible interpretation.'[46] However, the courts will not try to rescue a poorly drafted or unfair clause, and nor will they attempt to identify and impose what the parties *should have* agreed.[47] Recent case law has suggested that the courts are becoming even stricter on this point.[48] Similarly, it is very rare that an omission or gap in a sophisticated contract like a CCP's membership agreement will be filled in by the courts.[49] Nor will the courts repair defective wording, even in order to achieve its commercial purpose, or ordinarily take into account the wider policy or regulatory context behind a particular term which is being disputed.[50]

This means that, if a CCP has failed to provide workable recovery plan in its rule book, it will not be able to rely on the courts to correct these sorts of issues. This would matter, for example, if a recovery plan did not cover the steps needed to address a particular

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[44] *Lehman Brothers International (Europe) v Lehman Brothers Finance* [2012] EWHC 1072(Ch).

[45] *Rainy Sky SA v Kookmin Bank* [2011] UKSC 50 at [14].

[46] *GSO v Barclays* [2016] EWHC 146 (Comm) at [24], referencing *Mannai Investment Co Ltd v Eagle Star Life Assurance Co Ltd* [1997] AC 749 at 771.

[47] *Arnold v Britton and ors* [2015] UKSC 36.

[48] Ibid.

[49] *Marks and Spencer v BNP Paribas* [2015] UKSC 72 at [29].

[50] See also *BNY Mellon Corp v LBG Capital no 1 plc* [2016] UKSC 29 at [30] where the Supreme Court confirmed that 'very considerable circumspection is appropriate before the contents of such other documents are taken into account' when interpreting a contractual term. Here, by majority, the Court found an exception and decided that it was appropriate to consider FSA regulatory documents which influenced the design of contingent convertible bonds issued by Lloyd's Bank in 2009.

distress scenario.[51] In such a case it is highly unlikely for the plan to be rescued by the courts.

Secondly, a litigious CCP member may rely, by analogy, on case law generated in the bilateral OTC derivatives market, particularly around close-out under the ISDA Master Agreement, in order to argue that any discretionary powers the CCP has in its agreement with members must be exercised reasonably, or, as the courts have put it, in accordance with a duty of 'rationality'.[52] This requires that the CCP will have to act honestly, not arbitrarily and within its contractual powers.[53] While this may trigger a detailed technical review of the grounds for a particular decision taken by the CCP, ultimately the standard is not an onerous one provided that the stated processes are followed. The cases are clear that courts will not second-guess properly constituted decision-making, and the CCP will be entitled to act in its own interests subject to these broad constraints.

5.1.2 Public law challenges

A member or other affected stakeholder might, however, take an entirely different course to that outlined above, arguing that the CCP exercising its recovery plan should be held to public law-like standards[54] and that it should be subject to the 'judicial review' process, where the courts exercise their 'supervisory jurisdiction in public law'.[55] This is a 'collateral

[51] LCH.Clearnet (n 34) 6-7 includes nine different scenarios which may trigger risk at a CCP.

[52] *Socimer v Standard Bank; Fondazione Enasarco v Lehman Brothers Finance SA* [2015] EWHC 1307 (Ch).

[53] Sometimes this standard is framed by reference to the grounds applied in a judicial review. See section 5.1.4 for further discussion of such grounds.

[54] The convergence between public and private standards is explored in detail in D Oliver, *Common Values and the Public-Private Divide* (CUP, 1999).

[55] Ibid, 38.

challenge' to the decision-making *process*.[56] Usually, the courts use judicial review to supervise public bodies, but this supervision can be extended to private entities which are exercising public functions.

Though it is difficult to predict how this notoriously 'slippery'[57] area of law may apply to a CCP, this type of challenge is a possibility, representing a relatively complex, unfamiliar and technical type of legal challenge for the CCP to deal with during the recovery process. The two pivotal questions about judicial review are considered below. It is also worth noting that judicial review can be a basis of a challenge by stakeholders other than CCP members such as clients of clearing members, and also possibly other FMI entities and service providers exposed to the effects of a stressed CCP.[58] For this reason, judicial review may also be a risk during the resolution processes where a greater range of stakeholders face losses.

5.1.3 When would Judicial Review apply?

Whether a particular private entity is 'amenable' to judicial review is not clear-cut. This was demonstrated by a recent case considering the position of accountancy firm KPMG, where the court said that this question is 'not always easily answered'.[59] Broadly, amenability does not depend on the *source* of an entity's power being public[60] but rather it depends on the *nature* of the power the body is exercising and whether it is public in character. So, for

[56] *In Re Preston* [1985] 1 A.C. 835, 852 (Lord Scarman).

[57] Professor Rawlings describes judicial review as a 'slippery concept': R Rawlings, Modelling Judicial Review, (2008) Current Legal Problems 95, 95.

[58] For an overview of the network of FMI relationships and the interconnectedness of CCPs with banks and other FMI, see The Bank of England, *The Bank of England's supervision of Financial Market Infrastructures*, (March 2016) at 7-8.

example, an entity may be liable to judicial review 'if it has been woven into the fabric of public regulation or into a system of governmental control or is integrated into a system of statutory regulation or is a surrogate organ of government or but for its existence a governmental body would assume control …'[61] This requires a 'careful analysis of the function in issue',[62] which test has been described as 'broad' and 'question-begging'.[63] There are no cases directly considering whether a CCP would be considered amenable to judicial review. Analogies are of limited use on a fact-specific question, but there are two useful recent examples.

First, there are several cases where the London Metal Exchange ('LME'), in its capacity as a recognised investment exchange, has been treated as a public body, including where it was held to judicial review standards when consulting on and carrying out a rule change. *R (United Co Rusal plc) v London Metal Exchange*,[64] involved a challenge on the basis of the duty to act fairly during a consultation. On appeal, the LME was held liable to this standard, but found to have acted fairly. Neither the Court of Appeal or the first instance

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[59] *R (Holmcroft Properties Ltd) v KPMG LLP and ors* [2016] EWHC 323 (Admin), at [23] (Elias LJ and Mitting J).

[60] *R v Panel on Take-Overs and Mergers, ex parte Datafin* [1987] QB 815.

[61] *R v Jockey Club ex parte Aga Khan* [1993] 1 WLR 909, cited at *R (Holmcroft Properties Ltd) v KPMG LLP and ors* [2016] EWHC 323 (Admin), at [27] (Elias LJ and Mitting J). Internal references omitted from the quote.

[62] *R (Holmcroft Properties Ltd) v KPMG LLP and ors* [2016] EWHC 323 (Admin), at [26] (Elias LJ and Mitting J).

[63] *R(Beer) v Hampshire Farmers Markets Ltd* [2004] 1 WLR 233, at [16] (Dyson LJ) quoted at *R (Holmcroft Properties Ltd) v KPMG LLP and ors [*2016] EWHC 323 (Admin), at [26] (Elias LJ and Mitting J).

[64] [2014] EWCA Civ 1271, overturning [2014] EWHC 890 (Admin) on whether the LME had fallen short of its public law obligations, though both cases assumed that the LME was amenable the judicial review in the first place.

decision elaborates on why the LME is considered amenable to judicial review, but the latter states as part of the factual background that

> The LME is a Recognised Investment Exchange ('RIE') within the meaning of section 285 of the Financial Services and Markets Act 2000.[65]

This legislation covers different types of financial market infrastructure, and while the quoted section 285(1)(a) covers RIEs, section 285(1)(b) covers a 'recognised clearing house' and section 285(3A) covers a 'recognised central counterparty', suggesting a close parallel between the two types of entities for these purposes. There is also a link in the fact that the same regulatory regime imposes the duty on the LME as a RIE to have 'proper procedures' (which was relevant in this case) [66] and obliges a CCP as a recognised clearing house to have a recovery plan.[67]

Conversely, in a decision that the court acknowledged was a finely balanced one, a private firm taking part in regulatory scheme was found *not* to be amendable to judicial review. In this case, the purchaser of an interest rate hedging product which had been mis-sold by Barclays Bank, failed in his attempt to extend judicial review to the accountancy firm KPMG, which was acting as the 'skilled person' in the Financial Conduct Authority

[65] [2014] EWHC 890 (Admin) at [7].

[66] [2014] EWCA Civ 1271 at [25]: Part of the relevant factual background to the LME case was held to be: 'Paragraph 7 of the Schedule to the Financial Services and Markets Act 2000 (Recognition Requirements for Investment Exchanges and Clearing Houses) Regulations 2001 (SI 2001/995) [which] imposes a duty on the LME to have proper procedures for amending its rules, including procedures for continuing use of the market'.

[67] Section 29B of the Financial Services and Markets Act 2000 (Recognition Requirements for Investment Exchanges and Clearing Houses) Regulations 2001 (SI 2001/995) simply states that a central counterparty must have a recovery plan.

('FCA')'s mis-selling compensation scheme.[68] The court acknowledged that this was a difficult decision, not arrived at 'without some hesitation'.[69] It was ultimately persuaded by factors including that KPMG was appointed by Barclays as part of a voluntary scheme of redress imposed by the FCA, that KPMG's powers were conferred by contract, and that it was not carrying out a role which the FCA would have otherwise undertaken itself.[70] A CCP's relationship with its members is based on private agreement, as KPMG's was. While this clearly does not preclude judicial review, it is not the usual background to it.[71] However, this would not be a factor if judicial review was brought by stakeholders without the right to sue a CCP in contract, such as clients of clearing members.

One of the factors that the court may take into account at this stage is whether the entity in question has 'statutory underpinning' which includes the position where 'the government … has woven the body into the fabric of public regulation…'.[72] This may prove a powerful factor in favour of amenability now that the use of CCPs is mandatory under legislation including EMIR, and that they have expressly been given the function of protecting financial market stability. Reinforcing this argument is the fact that there is a statutory sanction under EMIR if a financial counterparty (or non-financial counterparty in certain circumstances) does not use a CCP to clear eligible contracts. Overall, this suggests that there is more of a public element in a CCP's role than there was in KPMG's in the case

[68] *R (Holmcroft Properties Ltd) v KPMG LLP and ors* [2016] EWHC 323 (Admin).

[69] Ibid at [41] (Elias LJ and Mitting J).

[70] These factors are discussed ibid at [42]-[47].

[71] Usually, judicial review is not be available where parties have a right to sue in contract, on the basis that it should be a remedy of last resort, but there are some exceptions. See Woolf et al (eds), De Smith's Judicial Review (7th ed, Sweet & Maxwell, 2013) 3-056.

[72] Ibid, 3-044.

above, and that actions under a recovery plan may therefore be reviewable, in particular if there are detailed requirements in finalised legislation.

5.1.4 The implications of Judicial Review

Judicial review would involve close scrutiny of a CCP's decision-making process against particular grounds. In the LME's case, for example, the scrutiny focused on whether the LME should have explained its reasons for rejecting certain proposals which were not consulted on, and whether the information it provided in its consultation was sufficient. The various grounds for judicial review include the rights set out in the European Convention on Human Rights and the *Wednesbury* test of unreasonableness,[73] which has been described as having two elements:

- firstly, checking the decision-making process against procedural factors, such as fairness. This may involve (depending on the facts in a particular case) checking if the body has taken relevant considerations into account, if it has met legitimate expectations which it has created though its actions, and if it has made any inconsistent decisions; and
- secondly, this test provides 'a safety net, [and a] control for extreme unreasonableness', for example, it checks to see if a body has exceeded its powers.[74]

In any given case, the applicable standards will reflect the terms under which the entity is operating. In the context of a CCP implementing its recovery plan, the applicable standards would likely reference the relevant functions and responsibilities which applied to CCPs in EU and UK legislation, the wider public policy objectives relating to financial stability, and

[73] Derived from *Associated Provincial Picture Houses Ltd v Wednesbury Corp* [1948] 1 K.B. 223.

[74] Rawlings (n 57) 118.

the contractual framework within which a CCP operates as regards its members. So, for example, a claimant may allege that a CCP had gone beyond its powers by acting unreasonably in making a capital call, or in implementing recovery plans in scenarios where they were not meant to be used.

If judicial review were allowed, the court would have a range of 'distinctive' remedies available.[75] Reflecting the fact that this is a claim about the decision-making process, these remedies are different to those available under private law (which are usually damages). Interim remedies include an injunction to preserve the status quo (eg, to prevent a capital call or an auction from taking place). Final remedies, at the end of a full trial, would depend on the nature of the harm, but may include a mandatory order that the body takes a particular action; an order quashing a decision or remitting the matter back to the decision-maker, or a formal statement of the legal position of the parties.[76] In the LME case discussed above, the court of first instance held that the LME's consultation process was flawed, and as a result, it quashed the decision which the LME had arrived after the consultation. In *Willard*, the court of first instance quashed a decision notice issued by the FSA's Regulatory Determinations Committee.[77] Therefore, judicial review may lead to a CCP's decision to use certain recovery tools being quashed by a court or an order that forces it to take a particular action, such as rescinding a decision to allocate losses in a particular manner. The impact of a decision on these lines would clearly have the potential to be market-wide. It would have to be taken into account by other CCPs in amending their own recovery rules and decision-making processes, and it might even elicit reform at a policy level, for example on the extent to which recovery

[75] Ibid, 117.

[76] On the nature of the range of interim and final remedies available, see Woolf (n 71) chapter 18.

[77] *R (Willard) v FSA* [2012] EWHC 1417 (Admin).

processes were underpinned by statute and the prescribed roles of regulators and CCP management during a recovery.

5.2 Should tear-up be the final step in the waterfall?

Section 4.2 above considered the nature of tear-up, whereby open positions are terminated by the CCP and the value of gains or losses used as the basis of a cash settlement. On the one hand, tear-up is a flexible and valuable tool. Selective tear-up may allow a CCP to offer a qualified version of continuity of service and, *in extremis*, full tear-up may allow the CCP to avoid insolvency. On the other, its use comes at a heavy price. Tear-up burdens non-defaulting members and their clients. It is a more disruptive and potentially destabilising tool than other options available to a CCP, because it terminates positions, cutting across the core benefits which a CCP offers a market, namely, certainty and stability around the management of cleared contracts. A full tear-up also terminates all cleared contracts, leaving no cleared claims (at least from the torn-up service) on the CCP legal entity.

For these reasons, tear-up needs to be precisely provided for in the CCP's rule books and needs to be conducted with considerable caution. More specifically, rules providing for tear-up should reflect the fact that there are potentially three, inter-linked risks arising from the use of tear-up and these risks expose a CCP using tear-up to challenges from members in particular. Two types of risk are considered here, and the third (relating to the loss of property rights involved) is considered as part of the discussion around the safeguarding stakeholders' property rights from arbitrary action, in section 5.5 below.

First, tear-up is vulnerable to challenges based on the CCP's right to use it in the first place. An affected member might claim that the CCP's decision-making was unlawful or illegitimate in some way, perhaps because it exceeded the powers set out in its rule book, or because it failed to satisfy various defined pre-conditions to a tear-up. This line of argument focuses on the *use* of tear-up as a default management tool (rather than the price). One way of mitigating this risk for CCPs would be to introduce a rule that the use of tear-up as a default management tool requires permission from the CCP's supervisory authority. This would delay the process, and it would involve a risk for that authority, as it could be challenged itself, but such a rule would offer protection for the CCP and a safety-check for the members affected. It would also enable the authority to evaluate if the disruption to affected members was outweighed by the financial stability gains from the tear-up exercise.

Secondly, there may be challenges from members or other affected parties based on the price at which a contract is valued when it is torn up. This is especially the case if there is a requirement (as some draft rules propose) that tear-up should not be used for loss allocation purposes, because here there is an implicit requirement that the tear-up price is 'fair'. This is because establishing a 'fair' price in the turbulent markets around a major clearing member default may be problematic. Moreover, it is possible to imagine that a CCP or its RA sets a price for tear-up, only to find that the affected contracts rally strongly thereafter: even without a 'no loss allocation' requirement, this fact pattern might be unfortunate. Challenges to the tear-up price could be on the basis that the CCP (or the RA) has breached the terms of the rule book, or that it failed to exercised its discretion reasonably. A contractual claim would mirror, and would very likely draw upon, litigation around the valuation process on the termination of OTC derivatives due to the default of one of the parties.[78] However, in general, this litigation demonstrates that the courts are inclined to allow parties with a contractual right to set a price a broad discretion.[79] A challenge on

[78] See the discussion of contract law-based challenges to the close-out process in OTC derivatives in Braithwaite and Murphy (n 2).

[79] For instance, in interpreting the 2002 ISDA Master Agreement's requirements that the Determining Party when determining the Close-out Amount should 'use commercially reasonable procedures in order to produce a

similar facts was recently brought in the context of a clearing house's close out of a defaulting member's positions, but it failed to get off the ground on that occasion.[80]

Assuming that the CCP was amenable to judicial review (as discussed above) it may also face an action around its price-setting process. This may be brought by a member, but it could also be brought by other stakeholders, such as a client of a non-defaulting member adversely impacted by tear-up, or an indirect client further down the clearing chain, or even more remote stakeholders which suffered loss due to the CCP's actions during a recovery such as another FMI or service provider.[81] Once again, though the immediate subject matter of these challenges would be the rules and actions of a particular CCP, it would be likely that this sort of challenge would impact other CCPs indirectly, to the extent that their recovery and resolution plans also involved tear-up.

5.3 When should resolution be triggered?

Even though there is a strong public interest in the successful outcome of CCP recovery processes and regulators may be closely involved, the processes described so far are essentially private. This is because they are conducted by the CCP management according to

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commercially reasonable result', Briggs J held that this meant that there was 'a bracket or range both of procedures and results within which the Determining Party may choose, even if the court, carrying out the exercise itself, might have come to a different conclusion.' *LBIE v LBF* [2012] EWHC 1072 (Ch) at [82].

[80] *In re MF Global UK Limited (in special administration)* [2015] EWHC 2319 (Ch) involved an application for discovery brought by joint special administrators of MF Global UK Limited under section 236 of the Insolvency Act 1986 against two clearing houses, which had closed out MF Global's open positions 'very shortly' after the appointment of administrators. The case was complicated by extra-territorial aspects, but helpfully for default managers the Court held that difference between the close out prices on 2 November, screen quotations and the price on 3 November was not something that warranted further investigation.

[81] A claimant has to seek permission to bring judicial review, see Rawlings (n 57) 116.

the CCP's own rules and aimed at sharing losses amongst its own membership. At the onset of resolution, however, the CCP forfeits this autonomy to the public sector RA, whose extensive powers will impact a far broader range of stakeholders than those considered so far.

In legal terms, the technical details around the trigger for resolution are almost inevitably source of tension between different parties, given what is at stake. In practice, much will depend on the design of underlying legislation and, in particular, on the discretion allowed to the RAs. Regulators tend to prefer regimes which allow them discretion to trigger resolution for wider financial stability reasons as well as in the case of narrower, micro-prudential problems relating to CCP solvency or liquidity.[82] This sort of regime might allow the RA to step in before the default waterfall was exhausted and recovery tools applied.[83] Meanwhile, CCPs (and sometimes their users) argue for a regime which allows for the 'possibility of a CCP-led recovery to continue',[84] and for rules which 'maximize certainty

[82] See, for example, the Article 32(1) of the Bank Recovery and Resolution Directive 2014/59/EU, which determines when RAs may take resolution actions. Though this requires three pre-conditions to be met (including a 'public interest' test), it is a broad regime designed to allow the RAs to step in when an institution is judged 'likely to fail'. The breadth of this test is reflected in the Guidelines subsequently published by the EBA: see European Banking Authority, *Final Report: Guidelines on the interpretation of the different circumstances when an institution shall be considered as failing or likely to fail under Article 32(6) of Directive 2014/59/EU* (May 2015).

[83] The analysis by LCH.Clearnet points out the 'fundamental challenges' with this approach. See LCH.Clearnet (n 34) 20.

[84] FSB, *Essential Aspects of CCP Resolution Planning: Overview of Responses to the Discussion Note* (February 2017), 2.

and predictability and maintain market confidence'.[85] In particular, this line of argument asserts that 'the indicators for a resolution authority intervention should be defined upfront'.[86]

The financial institution resolution regimes implemented to date usually include extensive discretion for the authorities to decide when to trigger resolution, so it seems likely that the former view, preferred by the authorities, will prevail for CCPs too. Moreover, the fact that a RA is obliged to pursue certain statutory resolution objectives, such as achieving continuity of critical economic functions, avoiding disruption to market participants and safeguarding financial stability[87] means that it will be trying to act before an actual failure, and while there are still loss absorbing resources left in the CCP. However, the use of discretion in such a high-stakes setting raises the question of potential challenges and legal safeguards against arbitrary actions by RAs. This reflects the difficulty of striking a balance between those parties with direct claims against the stressed CCP, whether as members, equity holders or other creditors, and the broader public interest in avoiding costs for taxpayers and minimising disruption to the financial system.

As the RA navigates these different interests in order to decide when to trigger resolution, it is wielding powers granted to it by statute (whether or not the powers it then goes on to exercise are found in the CCP rule book or in statute). This means that the RA's amenability to judicial review is much clearer than in the case of the CCP, considered above. By way of analogy, the FCA[88] and the Treasury Commission[89] have both been held to

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[85] See, eg, ISDA, *Resolution on CCP Resolution?* (August 2016) available at isda.derivativiews.org/2016/08/15/resolution-on-ccp-resolution/

[86] Ibid.

[87] Part II, Annex 1: FSB, *Resolution of Financial Market Infrastructures* (*FMIs) and FMI Participants*, 58 available at http://www.fsb.org/wp-content/uploads/II-Annex-1-Resolution-of-FMIs-and-FMI-Participants.pdf

[88] *R (Christopher Willford) v FSA* [2013] EWCA Civ 677

account (in different settings) in this way. In this context, potential claimants could include the CCP itself, its members, clients of members and wider stakeholders with standing.

Potential grounds for review may be that the RA exceeded or abused its powers at this point,[90] or that there has been a violation of the claimant's right to property under Article 1, Protocol 1 of the European Convention on Human Rights ('A1P1'). Former shareholders of Northern Rock put forward A1P1 as the basis for their judicial review challenge to the Treasury's decision on valuation. This case is considered in section 5.5 below, but it confirms that a challenge is possible in the context of a special resolution regime; that property such as shares qualify for A1P1 purposes; but also that the UK courts and the European Court of Human Rights agree that a wide 'margin of appreciation' will permit a public body to compromise individuals' property rights in the interests of wider financial stability.[91]

5.4 How should the safeguard against arbitrary action by RAs be framed?

An important objective of recovery and resolution regimes is to avoid the risk of a taxpayer-funded bailout of systemically important financial institutions. One way in which this is achieved is that equity and other claim holders may be required to bear the burden of losses through conversion and write-down tools (allowing the 'bail-in', rather than 'bail-out', of a failing institution). However, the extent of these stakeholders' losses is limited by a various

[89] *R (SRM Global Masters Fund LLP) v Treasury Commission* [2009] EWCA Civ 788.

[90] As a result, legislation should allow the RA broad discretion to balance the resolution objectives, as does the Bank resolution regime. See section 4(10) of the Banking Act 2009, which states that the five resolution objectives are to be balanced as appropriate in each case, with objective 5 being to avoid interfering with property rights in contravention of a Convention right (section 4(5)).

[91] See, eg, L James, Judicial review and public law rights: do they have a role in banking? (2015) 30(8) Butterworths' Journal of International Banking and Financial Law 464, 466.

exemptions (eg, to creditors who are employees) and safeguards. The public interest is therefore not allowed to prevail unchecked.

In the context of banks, the safeguard question is principally addressed by allowing any creditor who loses more in resolution than they would have lost in insolvency to claim compensation from the State. This NCWO safeguard acts as a constraint on arbitrary property transfer by the RA. It is designed to reassure creditors and it also 'allows the resolution authority to act more swiftly and decisively in the knowledge that actions that might otherwise upset the ranking of creditors in insolvency can be offset by compensation.'[92] In the banking context, the sum payable will be calculated by an independent valuer as the difference between the sum recovered and the estimated recovery had the special resolution tools not been used and the bank entered insolvency (the 'counterfactual'). While this creditor protection is paid by the State, a portion of these funds may be recouped from the Financial Services Compensation Scheme ('FSCS'), the scheme which insures depositors and which is funded by contributions by FCA and PRA regulated financial firms. This is because on the counterfactual the FSCS would have had to pay out to insured depositors.

The issue is more nuanced for clearing houses in several respects:

- If tear-up is available under the CCP rule book, much turns on whether the counterfactual assumes its use or not. If the CCP has full discretion to set the tear-up price, then it is almost impossible for it to fail due to member defaults, and hence to be bankrupt. This makes NCWO-in-bankruptcy an unhelpful counterfactual as the only claims on the CCP legal entity after full tear-up would be non-cleared ones.

[92] Davies and Dobler (n 39), 218.

- In bankruptcy, all remaining claims on the CCP legal entity at the same level in the creditor hierarchy would net. As discussed in section 1.5, there are potentially claims from one or more clearing services, from CCP investment activity, and from other areas of its business (such as other group companies). This again makes NCWO-in-bankruptcy problematic as authorities could not keep clearing claims in different services separate and distinct from other claims.
- It is easily possible to imagine circumstances where the RA may wish to conduct an 'early' resolution before the full cost of balancing the CCP's book is known. In this case it will be unknown at the point of resolution whether the CCP is solvent or not, even without the potential for tear-up. Authorities will typically want an NCWO counterfactual which can be calculated at the point of resolution, so that they are fully cognisant of the limits it imposes on resolution actions: clearly NCWO-in-bankruptcy does not meet this criteria if it is unclear whether the equity of the entity being resolved has any value.
- In the context of a CCP resolution, there is no equivalent of the FSCS to reimburse the State. Given the small number of CCPs compared to the number of FCA and PRA regulated firms, having a mutualised fund of this nature in the clearing sector is problematic, with the result that the State remains more exposed compared to the position in banking sector.
- It is unlikely that an independent valuer would be able to value positions held by the CCP quickly, or at least that it would be able to do so in a way that was fully 'independent' from the CCP's own calculations. Thus, an independent valuation of the 'true' value of an unbalanced book may well not be available at the point of resolution.

In sum, creditors, the RA and taxpayers alike have a strong interest in understanding exactly how a NCWO safeguard will work in practice and how it should be calculated at any likely point of resolution. Otherwise the safeguard may hinder the RA and make creditor challenges more likely. The NCWO safeguard must therefore be drafted so that it references counterfactual criteria which are knowable at the point of resolution. It must be clear and workable for the particular context of a CCP, so that its operation does not invite challenges to the RA or to the independent valuer, whether on the basis of judicial review or otherwise.

5.5 What is the role of CCP equity holders in recovery and resolution?

Under bank resolution, the holders of claims on the entity being resolved could be 'bailed in'. When these tools are used, the same order of priority applies as on a corporate insolvency, ie, equity would be the first tier to suffer losses. Some proposals for CCP resolution adopt a similar approach, with CCP equity being exposed to losses, and CCP recapitalisation (if needed) diluting existing shareholders. Clearly a CCP equity holder could face significant losses in resolution.

In the banking context, litigation has been brought by parties in this position. Former shareholders of Northern Rock brought a claim for judicial review challenging the basis on which their shares were valued on the bank's 2008 nationalisation. Their challenge was brought on the basis of the European Convention on Human Rights' protection of private property which provides that

> Every natural or legal person is entitled to the peaceful enjoyment of his possessions. No one shall be deprived of his possessions except in the public interest and subject to

> the conditions provided for by law and by the general principles of international law...[93]

This Article requires a balance be struck between the interests of the public and the protection of the individual's rights. The Court of Appeal confirmed that this balance is to be struck by reference to two governing principles: proportionality and the doctrine of the margin of appreciation.[94] The question in the Northern Rock case was whether the balance between public interest and private property rights required the shareholders to be compensated by the Treasury on the basis that 'lender of last resort' financial assistance was provided by the Bank of England, or on the assumption that it had been withdrawn and was not available in the future (which would value the shares at a negligible sum).

Upholding the first instance decision, the Court of Appeal rejected the shareholders' claim. It found that the nationalisation process was lawful, entirely 'for the protection of the banking system (and thus the general economy) as a whole'[95] and in these circumstances, the margin of appreciation afforded to the State should be a wide one. The European Court of Human Rights (ECtHR), to which the shareholders then appealed, agreed with the Court of Appeal that in the context of the exceptional circumstances across the financial sector at the relevant time 'a wide margin of appreciation is appropriate' in order to manage systemic risk.[96] It also confirmed that the valuation without reference to lender of last resort support

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[93] Article 1 of Protocol 1 of the European Convention on Human Rights.

[94] *R (on the application of SRM Global Master Fund LP) v Treasury Commissioners* [2009] EWCA Civ 788; [2010] BCC 558 at [55] (Laws LJ).

[95] Ibid at [61].

[96] *Grainger v UK* ECtHR, 10 July 2012 (Application number 34940/10) at [39].

was justified to avoid moral hazard in the future.[97] The shareholders should not, therefore, benefit from the actions of the lender of last resort.[98]

The Northern Rock litigation was long-running (with ECtHR decision coming four years after the bank was nationalised), and it demonstrates how judicial review on the basis of the right to property might be invoked by creditors or shareholders in the course of the authorities' handling of CCP's resolution. Notably, a challenge based on property rights would be very likely to cause delay, as such cases may take years to resolve and may affect a broad class of stakeholders. This delay presents risks for a CCP's recovery and resolution process in its own right, especially in light of the objective of continuity. Looking ahead, however, the actual outcome of the Northern Rock case is a constructive one for authorities which act properly and within their powers, for CCPs in recovery and resolution, and certainly from the perspective of the wider public interest. This is particularly because of the wide margin of appreciation afforded to the authorities in the UK and European courts, and also because of way in which the Court of Appeal's analysis, in particular, gives great weight to the fact that the relevant actions were taken with the strategic goal of protecting the public interest. This decision should give regulators confidence when deploying resolution tools which are designed to promote financial stability, but which may do so at the expense of the property rights of shareholders, creditors and others parties exposed to a failing CCP.

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[97] Ibid at [42].

[98] Indeed, the Court of Appeal found that the regulators' actions were expressly for the national interest and not the shareholders, and that it would be 'inconsistent' with the purpose of the scheme to confer any benefit to the shareholders. *R (on the application of SRM Global Master Fund LP) v Treasury Commissioners* [2009] EWCA Civ 788; [2010] BCC 558 at [66] (Laws LJ).

6. RECOMMENDATIONS AND CONCLUSION

The idealised model of public policy development set out in section 2 helps to understand the considerable amounts of regulation which have been imposed on the OTC derivatives market since the financial crisis. Applying this model, the paper has set out how new, over-riding objectives reflecting the interests of a more extensive set of stakeholders and intended to uphold the public interest have shaped the radical reforms to this sector. It has also explained how these over-riding objectives require a new regime to provide for CCP recovery and resolution.

We have shown that key questions in the design of public policy may be usefully analysed as conflicts of stakeholders' rights. Anticipating the legal challenges which may be brought by various stakeholders at this point of the policy process helps to refine and fortify rules before they are implemented. On this basis, the paper considered five contested points questions in CCP recovery and resolution policy. Specifically building on the analysis in sections 4 and 5, we offer the following policy insights.

6.1 Framing recovery and resolution rules

The use of the CCP rule book to implement public policy is in some ways an operationally neat solution. In particular, having clearing members agree to the resolution toolkit as a condition of membership increases clarity about the tools available and allows the RA to use contractually-agreed private law mechanisms to achieve public policy objectives. However, CCPs, members and authorities need to understand the consequences of the different legal frameworks. If resolution tools are set out in the CCP rule book, for example, the RA steps into the CCP's shoes on resolution and the boundary between recovery and resolution may be blurred, with implications for the timing and status of the 'resolution trigger'. In any event, statute would still have to provide for the primary rules around resolution, such as when a RA would be able to step in.

We have also seen that the relationship between legislation and rule book may influence the amenability of a CCP's decision-making to judicial review, where public law standards are applied. The more prescriptive the governing provisions in legislation, the cases suggest, the greater the potential for judicial review of the CCP and the greater the scope for affected non-members to bring an action. Overall, therefore, the neat operational choice between framing powers in a CCP's rule book and legislation is not reflected in an equally neat categorisation of potential legal risks. How rules are framed is unlikely to be wholly determinative of the legal challenges which may be brought on either recovery and resolution. In general, given the contextual nature of judicial review, both CCPs and the RA should be mindful of their obligations in public law as well as those which arise on more familiar legal grounds.

6.2 Tear-up

It has been seen that in many cases there would be claims on a stressed CCP both at the legal entity level (eg, from cash investment) and at the clearing service level. Full tear-up potentially removes all of the latter class of claims while preserving the former. As such, it not only impacts upon the members whose contracts are terminated, but it also dramatically changes the size of the claims on the CCP. Full tear-up could also push losses onto clearing members and arguably its use in a systemic clearing service would not meet the objective of continuity of critical economic functions. Therefore, there is a case for requiring permission from the CCP's regulator for its use, and for a cautious approach to setting the price for any tear-up.

6.3 The resolution trigger

It is relatively easy to construct scenarios where, in the terminology of table 3, an early, middle period or late resolution might be required. This justification for flexibility and subjective decision making, combined with the likelihood of multilateral challenges to any resolution which lacks a clear trigger strongly suggests the need for a broadly drafted trigger. Such provisions should allow authorities to resolve a CCP on macro-prudential (financial stability) grounds as well as for micro-prudential reasons, such as the likely failure of the CCP.

6.4 Creditor safeguards in CCP resolution

There are some areas where the bank resolution regime can be read across to CCPs, but it has been seen that the precise formulation of the NCWO safeguard is not one of them. In the CCP context, creditor safeguards are clearly needed, given the wide scope and potential impact of the resolution tools. However, the NCWO safeguard should not be formulated using bankruptcy as the counterfactual, not least because this approach may not fix the maximum size of the loss the RA can allocate at the point of resolution. In order to be workable and robust, it is important that the safeguard is easily determinable at the point of resolution: for instance, one could base a counterfactual on full tear-up at a price that just allocates all the available default resources, making full use of any available non-default loss allocation, and using any other resources (such as CCP equity) to meet legal entity claims according to the creditor hierarchy.[99]

[99] It can be argued that because one or more auctions did not succeed at a price which used less than the available resources, the price is at least as unfavourable to the CCP as this. However, by definition resources are not available to pay more than this. Thus this counterfactual is based on tear-up at the closest price to a true close out price that the CCP can afford.

6.5 Equity dilution at the point of CCP resolution

Overall, the post-crisis reforms are a substantial opportunity for CCP owners because they have increased demand for clearing services. From this perspective, enhanced CCP regulation and the new regimes for recovery and resolution can be seen as a *quid pro quo*. It would clearly be unfair for third parties to contribute resources to resolution, and thereafter for the future profits of the stabilised CCP to flow exclusively to the original owners. Moreover, CCP owners could always voluntarily contribute more resources to the CCP to stave off resolution, for instance using a rights issue, so dilution will only occur if they are unwilling or unable to provide extra resources. Tools which result in equity dilution in a CCP resolution are therefore justifiable as long as they are balanced out by the protections build into the ECHR right to private property. This approach strikes the right balance between the rights of CCP owners, the interests of the RA and the rights of those contributing to resolution.

6.6 Barriers to resolution

The analysis presented in sections 1.5 and 5.4 suggests that the legal entity structure of a clearing group can present a barrier to resolution in some cases. For instance, resolution is usually framed as applying to a legal entity, not a clearing service. This means that legal entities which host multiple clearing services may limit the freedom of action of RAs, especially if the CCP manages margin at the legal entity rather than clearing service level (and thus non-cleared claims include those relating to the investment of net margin at the legal entity). To frame the challenge constructively, it may be possible to conduct a resolution using a bridge CCP if:

- if there is only one systemic clearing service in a CCP;

- the assets necessary to clear (eg, intellectual property, systems, staff, etc) are in a separately capitalised service company; and
- posted margin for the service being resolved can be identified and transferred to a new legal entity.

However, if any of these conditions are not met, then this route may be difficult, especially if the NCWO safeguard is phrased in terms of net claims on the legal entity. The structure of CCP groups can therefore sometimes act as a barrier to the use of some resolution tools, and there may be a case for RAs to consider whether this impediment, where present, should be addressed.

6.7 Conclusion

History tells us that CCPs may fail. Furthermore, post-crisis rules mandating clearing have raised the stakes in CCP failure: clearing houses now clear 75% of contracts in certain sectors of the derivatives market[100] and, in the UK alone, CCPs collected in over £160 billion in initial margin in 2016.[101] CCP distress may be unlikely, but it is now vital for financial stability that an orderly recovery or resolution can be affected should it occur.

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[100] 'As of end-June 2016, 75% of dealers' outstanding OTC interest rate derivatives contracts were against central counterparties (CCPs), compared with 37% for credit derivatives and less than 2% for foreign exchange and equity derivatives. Overall, 62% of the $544 trillion in notional amounts outstanding reported by dealers was centrally cleared.' BIS, *Monetary and Economic Department, Statistical Release: OTC derivatives statistics at end-June 2016* (November 2016), 3 available at http://www.bis.org/publ/otc_hy1611.pdf

[101] The figure is from The Bank of England, *The Bank of England's supervision of financial market infrastructures*, Annual Report, (February 2017) 8.

The starting point for this paper was that recovery and resolution rules are an integral part of the post-crisis OTC derivatives regulatory programme. It follows, therefore, that the same over-riding objectives which made the first wave of reforms necessary provide a guide with which to balance competing interests when regulators come to finalise and implement the recovery and resolution regime. This approach does not, however, always lead to uncontroversial solutions and contented stakeholders.

The paper has demonstrated how post-crisis derivatives reforms have created a public-private hybrid in terms of rules, stakeholders and potential legal challenges. This hybridity means that there are often multiple types of challenge available to the disaffected. We have shown how thinking ahead to potential legal challenges can assist in policy-making. On the basis of such an analysis, we have put forward suggestions framing the role and responsibilities of different stakeholders and we have argued that a future regime for CCP recovery and resolution must, above all, strike an informed balance between public policy and private rights in order to promote the over-riding objectives of this vast reform project in a predictable and certain way.