

# THE LAW AND REGULATION OF CENTRAL COUNTERPARTIES

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Jiabin Huang



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# Foreword

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I am greatly privileged to write the foreword to this book. It is the updated and published version of Dr Huang's PhD thesis, which he presented at King's College London under my supervision.

This book discusses the operation of a modern Central Counterparty (CCP) from a legal and regulatory perspective. Its central theme is the creation of a single CCP or, in practical terms, a common platform for CCP clearing across different markets, and how this can be achieved in view of the continuing diversity in legal and regulatory policies still affecting them.

Before discussing these issues, the book first describes in detail the modern post-trade infrastructure and moves from there to the role and functions of CCPs. In doing so, it also provides an interesting account of how the CCP concept evolved together with the markets and shows that CCP clearing is itself in fact a market product.

In the meantime, the subject of CCP clearing has become highly topical and has attracted and continues to attract headlines after the recent financial turmoil. In particular, introducing CCP clearing to the Credit Default Swaps market to manage counterparty risk, to limit liquidity risk, and to increase market transparency is considered as one of the main regulatory responses to the turmoil. A book on this subject therefore could not have come at a better time with the regulatory overhaul in financial markets currently under way. It will help answer the question of what benefits a CCP can bring to the market, but it also highlights some of the risks this poses.

As a result of the post-crisis regulatory focus on systemically important firms or institutions, CCPs, being one of those institutions, are now themselves brought within the discussions on a new regulatory framework. This raises the question of how best they should be regulated. In the European Union, the regulatory approach towards CCPs has been the subject of a much longer debate that preceded the recent crisis.

Dr Huang discusses a number of options in this regard and argues in particular that the EU proposals to date do not go far enough to create a sufficiently responsive and robust regulatory framework for a real single European market with a single CCP to operate in.

Professor Jan H Dalhuisen  
London, March 2010

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My deepest appreciation goes to my beloved parents, especially for their immense support and unrivalled understanding for the past years, to whom I am much indebted.

Finally, my special thanks go to my teachers and friends whom have inspired me. I was most fortunate to have studied at the very best law schools, first at Renmin University of China, in Beijing, then at University College London, and later at King’s College London.

Jiabin Huang  
Bloomsbury, London

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# Contents

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<i>Foreword</i>	v
<i>Acknowledgements</i>	vii
<b>1 Introduction</b>	<b>1</b>
1.1 The Purpose and Scope	1
1.2 The Chapters in Outline	3
<b>2 Basic Elements of Post-trade Infrastructure</b>	<b>9</b>
2.1 Introduction	9
2.1.1 The Importance of Post-trade Infrastructure	10
2.1.2 The Changing Landscape of Post-trade Infrastructure	11
A. Central Counterparty	13
B. Clearing	15
C. Settlement	18
2.2 Payment Systems and Securities Settlement Systems	20
2.2.1 Introduction	20
2.2.2 Payment Systems	22
2.2.3 Securities Settlement Systems	23
2.3 Modern Indirect-holding Structure and Book-Entry Securities	24
2.3.1 Introduction	24
2.3.2 Indirect-holding Structure	25
2.3.3 Book-entry Securities	27
2.3.4 Transfer of Book-entry Securities	30
2.3.5 Concluding Remarks	32
2.4 Relevant Developments in Shaping the Future of Post-Trade Infrastructure	32
2.4.1 Delivery Versus Payment (DVP): Horizontal Linkage between Payment and Securities Settlement Systems, Various Forms of DVP	32
A. UK CREST	35
B. CREST DVP Process	36
C. Self-collateralisation in CREST	37
2.4.2 Straight-Through Processing (STP): Vertical Linkage between Different Tiers of Holding Systems	37
A. The Drive towards STP	39
B. Benefits	40

## *Contents*

C. Challenges	40
D. The Role of CCPs in STP Process	41
E. Market Development	41
2.4.3 Concluding Remarks	42
2.5 The Future of Post-trade Infrastructure	42
<b>3 The Functional and Operational Aspects of Central Counterparties</b>	<b>44</b>
3.1 Origins and Historical Development	44
3.1.1 Cheque Clearing (Timeline: from 1773)	45
3.1.2 Commodity Clearing (Timeline: from 1883)	48
3.1.3 Central Counterparty Clearing (Timeline: from 1888)	49
3.1.4 Concluding Remarks	51
3.2 The Functional Aspects of CCPs	52
3.2.1 CCP as Risk Manager	52
3.2.2 CCP as Fund Manager	54
3.2.3 CCP as Payment and Settlement System Operator	56
3.2.4 CCP as Post-trade Market Facilitator	57
3.3 The Operational Aspects of CCPs	59
3.3.1 Risk Operations	60
3.3.2 Treasury Operations	62
A. Specially Arranged Payment Scheme	62
B. Margining Operations	63
C. Operations for Other Services	65
3.3.3 Settlement Operations for CCPs	65
A. Trade Registration	66
B. Pre-netting	67
C. Netting Process	68
D. Post-netting	68
E. Settlement	69
F. Major Factors that Affect Settlement Operations	70
G. UK CREST	71
3.4 Concluding Remarks	72
<b>4 Legal Issues: The Key Relationships</b>	<b>73</b>
4.1 Introduction	75
4.1.1 Trading Rules and Clearing Rules	77
A. Trading	77
B. Trading/Exchange Rules v CCP Clearing Rules	78
C. The Timing Issue	79
4.1.2 The Conditions for Transaction Acceptance/Registration	80
4.1.3 The Results	82
4.2 Overview of the Key Relationships	82
4.3 The Relationship between CCPs and Their Members	86
4.4 The Relationship between Clearing Members Themselves	89

## *Contents*

4.5	The Relationship Between Clearing Members and their Clients	90
4.5.1	The Nature of the Relationship	91
4.5.2	The Relationship between the Two Different Clearing Arrangements	92
4.5.3	The Legal Position of Clearing Members affected by CCP Clearing	93
4.6	The Position of Clients of Clearing Members	95
4.6.1	The Effectiveness and Implications of Implied Terms: Clearing Rules and Regulations as Implied Terms	96
4.6.2	The Rights of Clients of Clearing Members	96
4.7	The Relationship between CCPs Themselves	98
4.8	Concluding Remarks	99
<b>5</b>	<b>Default Procedures and CCPs' Default</b>	<b>101</b>
5.1	Collateralisation and Financial Collateral Arrangements	101
5.1.1	Types of Collateral	102
5.1.2	The Use of Collateral	103
	A. Collateralisation in DVP Arrangements	103
	B. Collateralisation in Payment Systems	103
	C. Collateralisation in CCPs	104
5.1.3	The Limitation of Collateralisation	105
5.1.4	Characterisation and Realisation	105
5.2	Netting and Set-off	108
5.2.1	Netting	108
5.2.2	Definition and Distinctions	109
5.2.3	Settlement Netting	112
5.2.4	Novation Netting	114
5.2.5	Close-out Netting	116
5.3	Default by a Clearing Member	117
5.3.1	Commencement of Default Procedures	119
	A. The Prescribed Events that Trigger Default Procedures	119
	B. Procedures to be Followed	120
	C. Close-out of Positions	120
5.3.2	The Effect of Default Procedures on Other Clearing Members and Third Parties	122
5.4	Default by a CCP	122
5.5	Concluding Remarks	125
<b>6</b>	<b>Regulatory Issues</b>	<b>126</b>
6.1	The Purposes and Objectives of Financial Regulation	126
6.1.1	The Purposes and Objectives of Financial Regulation	126
6.1.2	The Interaction between Financial Regulation and the Markets	129
6.2	Regulatory Approaches	132



## *Contents*

6.2.1	The Modes of Financial Regulation	132
6.2.2	The Risk-based Functional Approach	135
6.2.3	The Interest of Central Banks	137
6.3	CCPs and the Regulatory Regime	139
6.3.1	The Need for Separated Treatment for CCPs	139
6.3.2	CCPs as Self-Regulatory Organisations	141
6.3.3	The UK Regulatory Regime	143
	A. Market Contracts, Market Charges and Default Rules	145
	B. Roles of Relevant Authorities	149
	C. Competition Issues: A Special Competition Regime	150
	D. The Effect of Recognition	152
6.4	Current Situation in the European Union	155
6.4.1	The Current EU Initiatives	155
6.4.2	The EU Directives	161
	A. The EU Directive on Directive on Settlement Finality	161
	B. The EU Directive on Directive on Financial Collateral Arrangements	162
	C. The EU Directive on Markets in Financial Instruments Directive (MiFID)	163
6.4.3	The Challenges to the EU Regulators and Supervisors	164
6.5	Concluding Remarks	166
<b>7</b>	<b>The Case for a Single Multi-market Central Counterparty</b>	<b>169</b>
7.1	Advantages and Disadvantages of CCP Clearing	171
7.1.1	From the Markets' Perspective	173
7.1.2	From Members' Perspective	175
7.1.3	From Non-members' Perspective	179
7.1.4	Concluding Remarks	180
7.2	The Case for a Single Multi-market Central Counterparty	180
7.2.1	The Raison D'être for a Single Multi-market CCP	180
7.2.2	The Benefits of a Single Multi-market CCP	182
7.2.3	The Risks of a Single Multi-market CCP	185
7.2.4	The Global CCP Initiative	190
7.3	European Union Developments	191
7.3.1	The Current Situation	193
7.3.2	The Argument for a Single Pan-European CCP	196
7.3.3	Future Prospects	198
7.4	Concluding Remarks	199
<b>8</b>	<b>Conclusions</b>	<b>200</b>
8.1	Modern Post-trade Infrastructure	200
8.2	The Legal and Regulatory Framework	201
8.3	A Single Multi-market CCP	203
	<i>Select Bibliography</i>	205
	<i>Index</i>	xii
		215

# 1

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## Introduction

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### 1.1 The Purpose and Scope

**M**ODERN POST-TRADE infrastructure for securities markets has been transformed by the immobilisation and dematerialisation of conventional paper-form securities and the subsequent introduction of book-entry systems. The advance of information technology has also contributed significantly to this transformation process. As a result, the role and functions of each segment in the post-trade infrastructure for modern markets have evolved considerably. In particular, the development of CCP clearing in securities markets reflects such evolution by facilitating both modern trading systems and payment and securities settlement systems. With their fast expansion, Central Counterparties (CCPs) are now participating in various different types of markets, including commodities markets, securities markets, and OTC derivative markets. This book takes CCP clearing in securities markets as a main example to give a historical account of the development of CCP clearing and illustrate the mechanism of CCP clearing as well as the modern role and functions of CCPs.

For historical reasons, common perceptions may continue to place CCPs and other types of clearing houses within the same category.<sup>1</sup> Both of them do indeed share some common roles, since CCPs were in fact built upon and grew out of earlier forms of clearing houses. Traditional clearing houses, those in commodities markets in particular, were initially established to provide a *guarantee* and help facilitate the trade settlement process. To some extent, this is also the case for CCPs. Nevertheless, the differences between them have been slowly recognised and comprehended, as will also be discussed in chapters two and three. Indeed, CCPs and other types of clearing houses<sup>2</sup> have distinctively different features and therefore should be distinguished from one another.

<sup>1</sup> See Section 3.1, ch 3 below.

<sup>2</sup> Typically, they include cheque clearing houses and traditional commodities clearing houses.

At present, the fact that these two have acquired two different definitions has shown the trend.<sup>3</sup> As such, CCPs, as the name suggests, are the central counterparty to the transactions concerned while other types of clearing houses are, at best, acting as calculation agents in preparation for settlement. The differences extend beyond the techniques of processing and are also present in law. Legally speaking, the techniques that are used in clearing houses differ quite significantly from those used in CCPs. For example, in these other types of clearing houses, clearing members remain contractually bound to each other in relation to the underlying transactions to which they are a party. However, the intended result of CCP clearing is to replace the contractual relationships between member participants of a CCP with those of a member and the CCP exclusively.

This book sets out first to clarify not only the existing common misperceptions about modern post-trade arrangements, but also those concerning the role and functions of CCPs in the post-trade cycle. This is particularly relevant to the analysis of legal issues, where fundamental concepts such as set-off and netting have been used extensively. Furthermore, the results are important for developing an adequate regulatory regime for CCPs, especially in the case that the risk-based functional approach is adopted.<sup>4</sup>

The book examines legal and regulatory aspects of the role and functions of CCPs. It endeavours to identify and examine legal and regulatory issues relating to modern CCP clearing and help to construct an adequate legal and regulatory framework, which is required to continuously support the proper functioning of CCP clearing and foster its future development. Nonetheless, it does not set out to observe any particular positive law, ie any specific jurisdiction, or put itself within the context of any particular regulatory regime. Where a particular approach or solution is adopted by a jurisdiction and is discussed in the text of this book, it is only intended to serve as an example of how a relevant legal or regulatory issue is dealt with in practice.

It is submitted that over the past few decades a number of market developments, especially in time of the recent 2007–08 financial crisis, have highlighted the importance of CCP clearing for the future development of a modern robust and efficient post-trade infrastructure. Despite its importance, the current debate on CCP clearing in this sector remains unfocussed. In this respect, the purpose of this book is to establish a foundation for future research on CCP clearing, for example, by identifying the potential legal and regulatory issues, providing examples of the complications and, as the case may be, how they may be resolved by reference to the approach adopted by a particular jurisdiction.

<sup>3</sup> Also see Section 2.1.2, ch 2 below.

<sup>4</sup> According to this approach, the same activities are treated in the same way providing the risk is the same. For the discussion on the approach, see Section 5.2.2, ch 5 below.

## 1.2 The Chapters in Outline

The six main chapters of this book present the following areas: (1) the modern post-trade infrastructure, (2) the role and functions of CCPs and the main features of CCP clearing, (3) the key relationships concerning CCP clearing, (4) default procedures and default by a CCP, (5) regulatory issues concerning CCPs, and (6) the case for a single multi-market CCP. Finally, conclusions are drawn.

### Chapter Two

Chapter two begins the analysis by explaining the general features of different segments in the post-trade infrastructure for the completion of each trade cycle in securities markets. The markets are constantly evolving with innovated products and the advance of information technology, as is post-trade processing, which is an indispensable part for the trade cycle. The main objective of this chapter is to provide an overview of the development of the modern post-trade infrastructure. It also intends to further distinguish and define various functions in the value chain of the modern post-trade arrangements.

This is followed by an examination of modern payment and securities settlement systems. To that effect, different types of payment settlement and securities settlement systems are distinguished. The chapter then moves on to discuss the developments of modern book-entry securities and the indirect-holding structure. The significant development behind these is the immobilisation and dematerialisation of paper-form securities, which was first initiated in the US after the paper-work crisis in 1970s. The resulting indirect-holding structure based on book-entry accounts helps to further facilitate the development of modern post-trade processing and increased intermediation in the markets. The last two sections of chapter two discuss two main concepts, ie Delivery Versus Payment (DVP) and Straight-Through-Processing (STP). They have developed along with the transformation of the modern post-trade infrastructure and are particularly relevant to the CCP clearing processes.

The concept of DVP may, at first glance, seem to be simple and straightforward. Its objective is to eliminate counterparty credit risk by, for example, linking payment systems with securities settlement systems in securities markets so that both legs of a securities transaction settle simultaneously. However, its implementation in practice is complicated by the differences between the settlement systems involved. As identified by the Committee on Payment and Settlement Systems (CPSS),<sup>5</sup> there are three main mechanisms for achieving DVP, depending

<sup>5</sup> Committee on Payment and Settlement Systems (CPSS), *Delivery Versus Payment in Securities Settlement Systems*. CPSS Publications No 6. (September 1992), at: [www.bis.org/publ/cpss06.htm](http://www.bis.org/publ/cpss06.htm).

on the types of settlement systems involved, ie gross or batch-processing and whether or not it is a real-time system. Here, the implications of this development to CCPs are examined.

Another recent development in the post-trade processing is STP. It is an industry-wide initiative that requires the effort of all market participants in the value chain. Technically speaking, it is a process that standardises the message protocol so that different systems can process the transaction data in the most efficient and speedy way possible. It is a prerequisite for both a shorter trading cycle and bringing about real-time settlement. This section also tries to explore the potential role that CCPs may play in this development, the standardisation process in particular.

## Chapter Three

This chapter first presents a historical account of the development of clearing houses. The discussion distinguishes three main types of clearing in the markets, namely, cheque clearing, commodity clearing and CCP clearing.

Looking back, cheque clearing as one of the earliest forms of clearing provided a centralised physical place to facilitate the centralised processing of cheques collected from different places. In commodities markets, clearing houses were first established by a 'ring' of participants in order to provide a form of guarantee to the performance of contracts for members of the *ring*.<sup>6</sup> Modern CCP clearing combines the features of cheque clearing with those of commodities clearing.

By distinguishing three different types of clearing, this chapter then moves on to focus on CCP clearing and explains their functional and operational aspects. It is also observed that from functional aspects CCPs play several different roles simultaneously: they act as risk manager, fund manager, payment and settlement system operator, and post-trade *market facilitator*.<sup>7</sup> By looking at CCPs from these different perspectives, the evolving role of CCPs in modern markets becomes clear.

In terms of CCP clearing operations, there are three main areas. They are, risk operations, treasury operations, and settlement operations. As part of trade cycles, the processing of transactions has evolved in a manner that is not easy to comprehend. It is for this very reason that the analysis in this chapter can at best serve as a snapshot. At its best, it is intended to provide a flavour of the way in which the operations of CCP clearing are arranged, bearing in mind that the arrangements may vary from market to market.

<sup>6</sup> See Section 3.1.2, ch 3 below.

<sup>7</sup> These roles are explained respectively in Section 3.2, ch 3. In addition, recognised CCPs also act as self-regulatory organisations. This is discussed in Section 6.3.2, ch 6 below instead.

## Chapter Four

Chapter four mainly focuses on the rules and regulations of CCPs that are set out to govern the contractual relationship between CCPs and their members. The contractual relationship between CCPs and their members are examined as well as its implications for the relationships down the chain, ie the relationship between clearing members and their clients.

In modern markets, the flow of trades from trading to CCP clearing, and to settlement means that trades are governed by the rules and regulations of each respective system at different stages. The relevant issues here are how the rules and regulations of these different systems interact with each other and the rules clarifying the appropriate time for the application of particular rules and regulations of each system, those of CCP clearing in particular, should be clearly stated.<sup>8</sup>

The contractual relationships between CCPs and their members, the members and their clients, and CCPs and the clients of their members, form a tripartite relationship which may suggest that it falls within the scope of agency law. Nevertheless, agency law principles in these relationships, as will be argued, may have to be substantially modified in their application to facilitate the proper functioning of CCP clearing, ie managing counterparty risk. This is one of the major issues to be discussed in this section. Specifically, this section intends to identify the implications of the typical requirement of a principal-to-principal contractual relationship between a CCP and its members, and its exclusivity.

To non-members accessing CCP clearing services indirectly through clearing members, the primary implication of the principal-to-principal relationship between CCPs and their members is that non-members by doing so give implied consent to be bound by market rules, ie, the contractual agreement between the CCP and the clearing member as well as the rules and regulations of the CCP. In other words, they agreed to the CCP's rules and regulations, to which their agents, ie clearing members are subject, despite the fact that they are not direct participants of the CCP clearing system. However, as will be observed, it is not immediately clear whether non-members would be able to invoke the rules and regulations of a CCP against the clearing members. Finally, it will also be argued that non-members cannot claim directly against a CCP in respect of the underlying contracts clearing members has processed through CCP clearing for them.

## Chapter Five

Chapter five discusses the issues in relation to CCP clearing default procedures. It is to be observed that collateralisation, and netting and set-off are the main

<sup>8</sup> See Section 4.1.1, ch 4 below.

elements in the CCP clearing processes in so far as default arrangements are concerned. Hence, this chapter begins by first discussing collateralisation, ie the techniques of collateralisation, its use in financial markets, its various types of assets used for collateral, its limitations, and the relevant legal issues. In addition, the issues regarding the realisation or enforcement of collateral will also be discussed briefly.

The chapter then moves on to examine netting and set-off. The definition of netting and that of set-off are then discussed with an attempt to distinguish the two. This is followed by considering different types of netting that are used in practice, namely, settlement netting, novation netting and close-out netting.

In the final section, the focus is on default rules concerning both member default and CCP default. It is a common perception that for a CCP, being in default is a highly unlikely event since CCPs are structured by robust financial backing. Furthermore, the consequences would be unimaginably damaging. In this section, the default rules of CCPs are found only to cover the default of members. The possible implications of the absence of rules regarding CCP default have also been examined.

## Chapter Six

In chapter six, the regulatory issues related to CCPs are examined. This chapter begins by explaining the complexities in market structure and financial regulation, which are regarded as important features of modern markets. Three relevant regulatory objectives of financial regulation are identified and potential conflicts that may arise between these objectives will be discussed. The interaction between financial regulation and the markets is further explained. The case of whether there is a need for separated treatment for CCPs is then examined. As to CCPs, the risks involved and the functions carried out are to be distinguished not only from other types of clearing houses but also from other segments of the post-trade infrastructure, ie, trading and settlement. The examination has been carried out in the light of the adoption of the risk-based functional approach to regulation that is widely accepted by the markets and regulators.

The second section begins with a discussion of the modern regulatory approach. A combination of self-regulation and governmental regulation now increasingly characterises regulation, especially for CCPs. This is the modern co-regulation approach whereby each mode of regulation shares separate regulatory roles. The typical membership structure of CCPs essentially requires an element of self-regulation. The modern co-regulation approach typically has a statutory framework that gives the authority of rule-making to recognised CCPs. In order to illustrate this modern approach to regulation, the third section takes the UK regulatory regime for CCPs as an example. In the United Kingdom, CCPs

are subject to a separate recognition regime under the Financial Services and Markets Act 2000. The regime sets out relevant recognition requirements and puts CCPs under competition scrutiny.

This chapter then moves on to discuss current situations in the European Union (EU) and examines the regulatory initiatives and public policies adopted by the EU in achieving its goal of the creation of a single pan-European market. Although the EU has adopted a regulatory framework for financial markets as a whole that promotes competition between Member States' regulatory regimes with minimum common standards, an agreed common regulatory framework in the post-trade sector in the EU is yet to exist. As such, complications that arise in the development of CCP clearing within the EU are examined.

This chapter concludes by looking forward and considering the future challenges that regulators and supervisors, especially those in the EU, are likely to be faced with. It is to be observed that the supervision model of co-operation between regulators and supervisors from different EU Member States, which is based on the 'home country control' principle,<sup>9</sup> is mainly derived from the regulatory regimes in Member States and relies heavily on co-operation between Member States' authorities. This chapter finally examines whether or not such regulatory approach is suitable for the further consolidation of the markets across border within the EU and if it is instead likely to hinder the development of a single pan-European Market.

## Chapter Seven

In this chapter, the advantages and disadvantages of CCP clearing in general are first discussed. This is followed by the argument for a single multi-market CCP with the exploration of the risks and benefits of a single multi-market CCP. In the third section, the developments in the EU toward a single CCP are specifically discussed. To evaluate the advantages and disadvantages of CCPs, this chapter first examines them from different perspectives, ie, the markets' perspective, the members' perspective, and non-members' perspective. Indeed, there are pros and cons of introducing a CCP into a market, which in turn requires a proper assessment of risks and benefits to the market. This chapter goes further to examine whether or not a market with two or more CCPs will provide the same benefits as those with a single CCP. As its name suggests, a central counterparty means that there is only a single counterparty to participants in a specific market. At first glance, having two or more CCPs in a market may make no difference to market participants as long as they are members of one of the CCPs. However, the picture is different at the market level, as argued, since the fact that there are two or more CCPs in the market may suggest otherwise. To make the case for a

<sup>9</sup> See Section 6.5.2, ch 6 below.



## *Introduction*

single multi-market CCP, this chapter also draws from the analysis of the role and functions of CCPs as well as the legal and regulatory aspects, as discussed in the previous chapters.