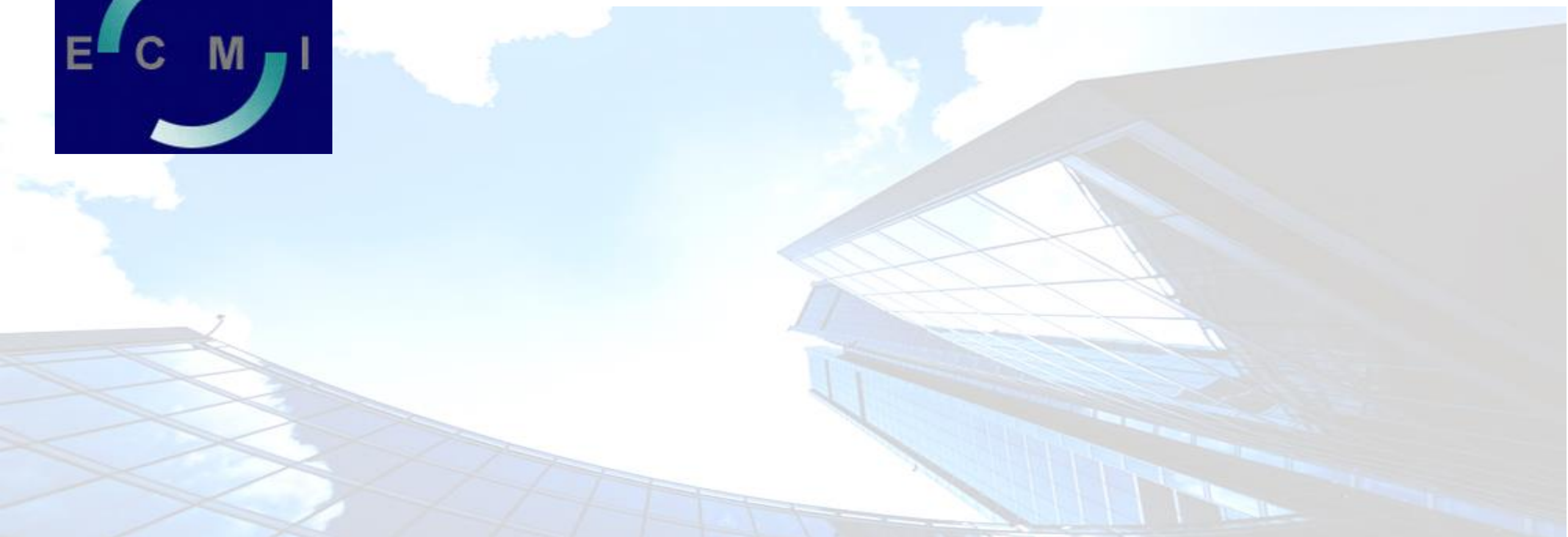

EUROPEAN CAPITAL MARKETS INSTITUTE

Derivatives Clearing and Brexit

A comment on the proposed EMIR revisions

by Karel Lannoo

ECMI Policy Brief No. 25 / November 2017

Summary

No less than three substantive pieces of EU legislation have been proposed over the eight-month period from November 2016 to June 2017, modifying or complementing the original EMIR Regulation of 2012. This contribution analyses the changes that have taken place in EU OTC derivatives markets since the new rules were adopted, and discusses the three drafts. It argues that the European Commission should have assessed risk management with CCPs in more detail and should have proposed a more integrated architecture for the supervision and resolution of CCPs. It further argues that the three proposals should have been part of one single package to facilitate the legislative process of such technical measures.

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Contents

List of Figures and Tables

List of Abbreviations

BIS	Bank for International Settlements
BRRD	bank recovery and resolution Directive
CCP	central counterparty
CM	clearing member
CDS	credit default swaps
CRD I	capital requirements Directive
DTCC	Depository Trust and Clearing Corporation
EBA	European Banking Authority
ECB	European Central Bank
ELA	Emergency liquidity assistance
EMIR	European market infrastructure Regulation
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
FSB	Financial Stability Board
G-20	Group of 20 (industrially advanced countries)
IM	initial margin
IRS	interest rate swaps
ISDA	International Swaps and Derivatives Association
IOSCO	International Organization of Securities Commissions
MiFID	markets in financial instruments Directive
MPOR	margin period of risk
NCWO	no creditor worse off
OTC	over-the-counter
SRB	Single Resolution Board
TR	trade repository
VM	variation margin
VMGH	variation margin gains haircuts

Derivatives Clearing and Brexit
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Introduction

As part of the overhaul of the European market infrastructure Regulation (EMIR), which lays down rules on over-the-counter (OTC) derivatives clearing, central counterparties (CCPs) and trade repositories, the European Commission is proposing more centralised supervision of CCPs in a new 'executive session' and more powers for the central banks of issue, as well as enhanced monitoring of CCPs based outside the EU. The analysis of the great degree of centralisation of risk and interconnectedness was already present in the EMIR Review proposal of May 2017 (EC, 2017a), but it took a separate proposal to centralise supervision, published on 13 June 2017, with an enhanced supervisory role for the European Securities and Markets Authority (ESMA), extraterritorial visits and fines, and, possibly, a location requirement for certain third-country CCPs depending on their systemic importance (European Commission, 2017c).

The regulation of central counterparties is possibly the most complex element in financial markets, and the most contentious in the post-crisis context. To reduce exposure in bilateral derivatives trades, the Pittsburgh G-20 decided to require much more central clearing of OTC derivatives (G20, 2009). This resulted in significantly greater pooling of risk by CCPs, whose effective prudential framework for resilience, recovery and resolution remains under review. No less than three substantive pieces of EU legislation have been proposed over the eight-month period from November 2016 to June 2017, modifying or complementing the original EMIR, which required central clearing of most OTC derivatives and set the prudential requirements for the CCPs of such transactions. These three sets of very technical amendments – covering the recovery and resolution of CCPs (European Commission, 2016), the review of the original 2012 EMIR and the centralisation of supervision – will impose a heavy burden on legislators in the European Parliament and the Council.

The issue has become even more contentious in the context of Brexit. As the UK is home to the largest wholesale financial centre of the EU, and hosts the lion's share of the EU's as well as global OTC derivatives markets, maintaining this business in a jurisdiction that is no longer subject to EU law raises a host of supervisory issues. This contribution analyses the proposed changes to EMIR and attempts to make it comprehensible for the informed but essentially lay reader. Part of this analysis will focus on the impact of Brexit, as one may wonder why the Commission is taking such a hard line in its latest proposal to drastically change the supervisory

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* Karel Lannoo is Chief Executive of CEPS. Comments by Lukas Eick, Willlem Pieter De Groen, Natalie Pettinger Kearney, Christian Smits and Apostolos Thomadakis are gratefully acknowledged.

structure of CCPs. But we will start with a brief analysis of the impact of EMIR and the role of CCPs.

1. EMIR and CCPs

It is difficult to make a full assessment of the impact of EMIR, as the 2012 Regulation is not yet fully implemented. The clearing obligation only started to come into force in mid-2016 and will only be complete for all asset classes and counterparties in mid-2019 (ECB, 2016, p.13). The part on the transparency of derivatives trading is awaiting implementation of MiFID II in early 2018. In this sense, the EU is behind on the US to fully deliver on its 2009 G-20 commitment, but aligned or ahead of others – mostly developing countries (see FSB, 2017, p.3).

As at international level, EMIR has with some delay also achieved more central clearing of OTC derivatives trades and the compression of the notional amounts outstanding, but to a more limited degree so far as it is in its early days. The share of interest rate swaps (IRS) that are centrally cleared increased from 25% to 35% in 2016, measured in number of trades (ECB, 2016, p.10). IRS represent 85% of the notional value outstanding European OTC derivatives markets. At global level, the share of centrally cleared OTC transactions is about 55% (BIS, 2016).

Transparency of the OTC derivatives markets, one of the other G-20 objectives, has increased enormously, as a result of the obligation, also contained in EMIR, to report transactions to trade repositories (TRs). “The derivatives market – once one of the most opaque financial markets in the world – is in the process of becoming one of the most transparent to regulators” (ESRB, 2016). Thanks to EMIR, wide data sets are now available to regulators and policymakers on the EU-wide derivatives markets, which before were only available for certain OTC derivative instruments in the US, via the Depository Trust and Clearing Corporation (DTCC), a post-trade financial services company established in 1999 to provide clearing and settlement services to financial markets.

The downside is a further concentration of risk in derivatives markets, as well at the level of CCPs with regard to the number of players that are active in the market. In the IRS market in the EU, one clearing house, LCH ltd., accounts for about nine out of ten of all centrally cleared OTC trades. Three-quarters of total outstanding notional of these trades happens in contracts between a group of 16 dealers and/or other banks (ESRB, 2016, p.16). Due to the natural efficiencies brought by centralising the management of an asset class in one vehicle (risk reduction techniques, margins, execution costs), this concentration is also found in the credit default swaps (CDS) and forex forward markets, the two other major components of the OTC derivatives markets. The risk is thus concentrated within CCPs and with their members, which are interdependent. This is an obvious possible source of systemic risk for supervisors.

A key issue from a public policy perspective is thus the risk management by CCPs and their members – the large banks and dealers. The latter falls within the scope of the CRD IV (capital requirements Directive), and its various updates. Risk management by CCPs was addressed by

EMIR, and is part of the updates that are on the table now. But rulemaking on both sides should be closely aligned, as the insertion of disincentives in bank prudential rules to use CCPs will be counterproductive (by excluding margins in the leverage or liquidity coverage ratio calculation, for example), and poor risk management in CCPs will affect their members.

In its original form, EMIR requires CCPS to operationalise the following basic prudential and business conduct standards:

1. To maintain "adequate" capitalisation of at least €7.5 million, "proportional" to the risk taken by the CCP (Art. 16). This includes specific capital dedicated to winding down or restructuring CCPs activities as well as capital requirements for credit, operational and legal risks, counterparty and market risks, business risk (EMIR RTS 152/2013);

2. To observe the default waterfall, composed of exposure management through margining rules and a pre-funded default fund, or the financial safeguards available to a CCP to cover losses arising from a clearing member's (CM) default, collateralisation and investment policy (Arts 40-47); and

3. To meet governance and conduct requirements (segregated and portable individual client accounts, conflicts of interest rules, outsourcing policy (Arts 33-39).

The core of risk management in a CCP consists of the quantification of risk it faces in managing each member's portfolio, and in the attribution of **margin requirements** (Heckinger et al., 2016; LCH, 2015). Margins are calculated on the portfolio of exposures of a clearing member to cover for its default, taking into account correlations between the different exposures across a range of market conditions. But portfolio margining is restricted to portfolios of similar asset classes, for instance rates or equities, not both.

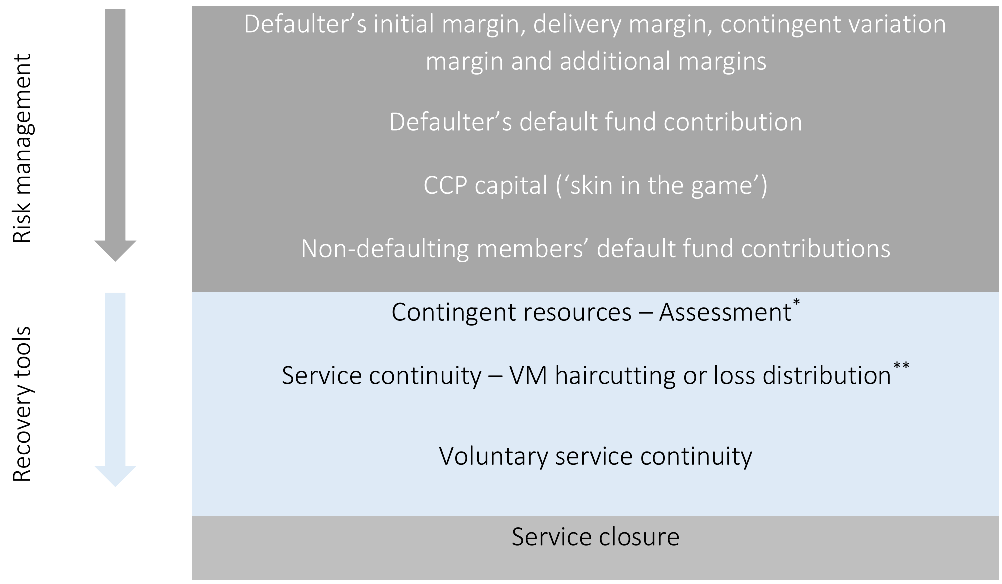
The **initial margin** (IM) is set on a pre-set amount of collateral posted in the CCP. In response to changes in the market conditions, mark-to-market gains (or losses) result in positive (or negative) cash flows between the CCP and the clearing members; this is the **variation margin** (VM). Hence the VM is based on pure price criteria, whereas the IM is more tentative. The IM estimates future potential losses based on two parameters: the number of days required to replace or re-hedge positions, known as the "margin period of risk" (MPOR), and the volatility of the underlying asset during the MPOR. This model is developed by industry, based upon parameters set by regulators. CCPs thus need to be superior risk managers, setting a robust margining framework, and act as 'risk poolers' rather than 'risk takers', thereby reducing the overall level of risk in the system (Banque de France, 2016).

According to data published by ISDA (2017a), the level of IM for IRS and CDS with the largest CCPs in the world has been gradually increasing over the past several years, and reached $173.4 billion as of 31 March 2017, 2/3 of which is with LCH in London. The estimated VM for the same period of the year stood at about $260.7 billion, of which 80% is with LCH Group (IRS and CDS products only).[1] These data underscore the central role of the City of London in derivative markets globally.

A second level of defence is the **default fund**, based on the participation of clearing members and the CCP's own contribution, ensuring some 'skin in the game'. EMIR requires a CCP to place at least 25% of its own regulatory capital in the fund, after a defaulted member's financial resources but before any resources of non-defaulted members.

A third level of defence is a further call upon members' resources or full loss mutualisation. Further down, variation margin gains can be given a haircut (VMCH). See the figure below for an overview of the default waterfall, as envisaged in LCH.Clearnet.[2]

Figure 1. CCP loss-allocation waterfall



* Callable up to the value of each member's Default Fund contribution at the time of the default.

** The resources available in the service continuity phase are determined by the LCH Clearnet Rulebooks.

Source: Huertas (2016) based upon LCH.Clearnet (2015).

Ultimately, a central bank can be on stand-by to inject liquidity into a CCP, in return for collateral. In times of high market volatility, margin calls could affect the liquidity of CCP members, and affect the capacity of the CCP to make the cash payments to non-defaulting counterparties when due. A default of a CCP could have far-reaching financial stability consequences. Hence liquidating a CCP would not be an option, but rather resolving it. The problem is that on that point, the statute of CCPs has not been harmonised across member states, even under EMIR. In some countries they are banks, and can thus get liquidity from the central bank against collateral, whereas in other countries they are not banks per se. As a bank, the CCP is subject to the CRDIV regulation, with e.g. liquidity and asset liability requirements,

[1] Separate data are not available in the survey for LCH ltd and LCH sa.

[2] See http://www.lch.com/documents/731485/762506/2_default_waterfall_ltd_0.35_150529/d13be378-38b8-476e-b402-d3b9470b21c7

but it can have access to central bank liquidity. This is not the case for a non-bank, which on other hand has advantages in capital regulation, with lower capital requirements, for example.

In addition to this diversity in statutes is the diversity found among supervisory authorities of CCPs in the EU. These can involve market and prudential authorities, central banks, resolution authorities or competent ministries, functioning at national, European or international level.

On the prudential side, the authorisation of CCPs and the prudential rules were one of the first items to be implemented in the EU. Hence an assessment could be made about the balance sheet of these organisations, but there is insufficient information available. The EMIR Review impact assessments could have provided this information, but they essentially cover macro information on a CCP, and not at the micro level. Also the ECB (2016) concludes in its paper on reform of OTC derivative markets that the quality and the method of reporting data still need to improve.

2. The EMIR Reviews and Complements

Two reviews and a proposed complement to the original EMIR are on the table for policymakers to consider, one of which is very controversial in the context of Brexit. Three proposals modifying or complementing the EMIR rules in eight months already raises questions about synchronisation and consistency of the new rules. The first, published in November 2016, deals with recovery and resolution of CCPs, the second with the review of the original 2012 Regulation (which is the real EMIR Review), and the third with the supervisory cooperation and tools, including the possibility to adopt a location requirement for systemically important CCPs.

2.1 CCP recovery and resolution

The even more central role played by CCPs as a result of the G-20 decisions raises the question of how to handle crises in such entities. Hence, the key issues are the resilience of CCPs to withstand severe market disruptions, client failures and liquidity risk. Efforts have been ongoing at international level between the Bank for International Settlements (BIS) and the International Organization of Securities Commissions (IOSCO) to formulate basic principles, which the Commission proposal translates in the EU context (BIS, 2016).

As with the bank recovery and resolution Directive (BRRD) for banks, the draft regulation requires CCPs to draft recovery plans, and authorities to foresee resolution measures. The Commission proposes a regulation to ensure the uniform application of decisions across jurisdictions. Resolution should allow for early intervention, have clear triggers and be composed of adequate tools and powers. It should not assume any state financial support or central bank emergency liquidity assistance (ELA), although it could be considered in last resort. Member states should set up colleges of resolution authorities to deal with cross-border and third-country issues. Unlike the BRRD, which requires insolvent banks to be liquidated or resolved through a bail-in or asset separation and sales, the CCP resolution draft primarily calls for ensuring the continuity of the CCP's critical functions, eventually through a publicly controlled bridge CCP. This raises the question of the distribution of losses from the resolved CCP and the international coordination of the resolution activities.

The central issues in reacting to crisis situations are the governance of the CCP and its capacity to take decisions.[3] But the CCP resolution proposal may be counterproductive in these areas by offering too much prescription in the resolution tools on the one hand (Art. 27-40), and preserving the colleges of resolution authorities on the other, which may hinder swift coordinated action, rather than creating a more integrated structure, as was done with the SRB for banks.

The European Commission's proposal gives the resolution authorities several options for distributing the remaining losses in the case of a CCP resolution, such as cash calls and variation margin gains haircuts (VMGH) (Elliott, 2013; Raykov, 2016). The VMGH is in particular a concern to investors/end clients that run a balanced book such as market makers, i.e. all the positions are hedged across CCPs. Hence, in stress situations, the net positions remain limited, but the gross positions, as the potential gains, will be very large. When the market-maker's gains at one CCP are subject to a haircut and the other loss-making side of the hedge remains unaffected, the market-maker might end up with a large loss that it is unable to cover. The VMGH has a further disadvantage in that only a small share of the investors will absorb the losses. They might even be worse off than in the case of liquidation, which would be a violation of the no creditor worse off (NCWO) principle in the proposed legislation.

An alternative to collecting funds from the end-clients would be to apply a haircut on the initial margins. IM, however, are regarded as belonging to the client and in many jurisdictions, such as the US, it is illegal or even a criminal offence to use them for any purpose other than to cover the (potential) losses from the transactions with the clients.[4]

On the colleges, it is widely accepted that they may function well during normal circumstances, but not during crises. Supervisory colleges are already large, but resolution colleges are even larger (involving ministries, supervisors, resolution authorities, central banks, ESMA and EBA, see Art 4.2 for the full list), and larger than for banks. The June 2017 EMIR proposal only changes this structure for the supervision of CCPs in third countries, not for resolution. One may wonder why the Commission did not dare to propose an SRB for CCPs as it concerns much less players, but whose default may have important cross-border systemic consequences. This applies as well for the integrated supervision of these entities, as discussed below.

[3] This part of the paper draws upon the discussion at a conference organised by CEPS and ECMI at ABN AMRO in Amsterdam, 9 June 2017; see ECMI (2017).

[4] See for example Letter of CFTC Chair Christoper Giancarlo to Kay Swinburne, MEP,

2.2 The EMIR Review

The EMIR Review proposes a set of targeted amendments to simplify the 2012 regulation and increase the proportionality of rules. This also affects the Trade Repositories, which are the derivative data reporting centres that were created by the EMIR. Most importantly, it extends the exemption for pension funds from the clearing obligation, an issue that provoked heated debate five years ago.

Although the original EMIR measure is still in full implementation, Article 85 required a Review five years after its adoption. This Review is not easy to make, as no rules had previously been in place on CCPs at EU level, and the rules on central clearing obligations have only begun to apply recently, or are still in the course of implementation, while rules in US have been in place since 2013. But the most important reason for the Review is the extension of the waiver for pension schemes from the clearing obligations for another three years.

The European Commission concludes in its impact assessment that no fundamental change should be made to the nature of the core requirements of EMIR, but that some disproportionate costs and burdens on certain derivatives' counterparties could be eliminated and rules simplified, without compromising financial stability. This includes the clearing obligation for financial and non-financial counterparties, where a new counterparty classification has been proposed and clearing thresholds and margin rules have been clarified. To tackle diversity in the membership requirements and clearing costs in CCPs, the Commission proposes to be empowered to set fair, reasonable and non-discriminatory commercial terms. The Commission also proposes a mechanism that allows the Commission, at the request of ESMA, to suspend the clearing obligation for a specific class of OTC derivatives or for a specific type of counterparty where certain conditions are met. Simplification applies as well to the rules regarding trade repositories, where data standards and quality can be improved, although market commentators believe that the reporting system remains too dual-sided, overburdening reporting requirements and reducing data quality.

2.3 A European supervisory mechanism for CCPs

The third EMIR-related proposal, published in June, centralises supervision of CCPs through a European supervisory mechanism, composed of the relevant national authorities and central banks and ESMA. A so-called 'Executive Session' would be created within the Board of Supervisors of ESMA to supervise EU and third-country CCPs. The executive session would have the possibility to propose to the EU Commission to mandate the location within the EU of clearing facilities considered substantially too important to be recognised, which in the perspective of Brexit, has provoked huge concern with UK-based market operators, but also with other clearing members.

The Commission justifies the streamlining of the supervisory framework for CCPs on the basis of the growing importance of CCPs in the financial system and the associated concentration of credit risk in these infrastructures. While EMIR sets out common prudential rules for all EU CCPs, the Commission is of the view that supervisory practices to apply these rules are too divergent and the supervisory arrangements need to be more consistent. ESMA had already at several occasions insisted on the divergence in supervisory practices of CCPs in the EU. An ESMA report of December 2016 highlighted the variety in supervisory approaches by NCAs as well as regards the margin as collateral requirements. "ESMA noted that NCAs supervising similar CCPs in terms of size, systemic importance, nature and complexity of the activities adopted different approaches with respect to the frequency and depth of their review, including whether to conduct of on-site inspections" (ESMA, 2016, p. 41).

In order to complement the existing colleges of competent EU supervisors currently in place for CCPs, the Commission now proposes to reinforce EU-level supervision by introducing a European supervisory mechanism for CCPs under the responsibility of ESMA. It should be appropriately staffed to supervise the EU-based CCPs and monitor the third-country CCPs, and be paid for by supervisory fees. The supervisory arrangement will be managed by an 'Executive Session', to be composed of permanent members of ESMA, a representative of both the ECB and the Commission, and a representative of the competent authority of the member state where the CCP is established. It gives ESMA a prior consent for most decisions by national authorities regarding CCPSs. It could require authorisation and eventually establishment within the EU for any third-country CCPs that would pose substantial exposure risk to the EU and the stability of its financial system.

The requirements for these third-country CCPs to do business in the EU are very strict: 1) compliance with the relevant and necessary prudential requirements for EU-CCPs, 2) compliance with EU central banks' requirements on liquidity, payment or settlement arrangements and 3) written consent allowing ESMA to visit its premises. The European Commission says these requirements will be applied in a proportionate manner, following standards specified by the FSB (Financial Stability Board), an international body created following the G-20 gathering in 2009, to monitor and make recommendations about the global financial system. Reciprocal '*comparable compliance*' would be established between ESMA and any third-country's competent authority.[5] In the event that the requirements are not met, ESMA could recommend to the European Commission to decline to recognise the third-country CCP in question. ESMA could also, as proposed in the amendments, impose fines or penalty payments on third-country CCPs.

To be able to exercise a legal competence in the domain of central clearing, the ECB proposed a change to its statute on 23 June 2017. The proposed amendment reads: "The ECB and national central banks may provide facilities, and the ECB may make regulations, to ensure efficient and sound clearing and payment systems, and clearing systems for financial instruments, within the Union and with other countries." The ECB says that this will give an "enhanced role for central banks of issue in the supervisory system of central counterparties (CCPs), in particular with regard to the recognition and supervision of systemically important third-country CCPs clearing significant amounts of euro-denominated transactions".

[5] See European Commission (2017b, p.25).

The third set of EMIR-related amendments, however, are only a halfway construction, and certainly will not constitute another SSM, as the licensing of CCPs will remain with national authorities, and ESMA powers are mainly targeted at third-country CCPs. While supervision of EU-based CCPs remains essentially in the hands of the national supervisors, ESMA's role here is to contribute merely to supervisory convergence.

3. CCPs and Brexit

Much, if not all of the third series of amendments have been proposed in reaction to Brexit. The City of London, and LCH in particular, has become the by far most important CCP for OTC IRS, which represent 95% of the European OTC derivatives market. The global dominance of the UK-based derivatives market can be observed on the basis of its share in the variation margins on IRS products (see Table 1).

Table 1. Total variation margin by CCP participants on OTC IRS and CDS products ($)

	Average total VM paid to the CCP per participants	Total estimated VM	share
CME	2,537,251,501	30,769,771,169	11.8
Eurex Clearing	922,498,602	3,098,739,425	1.2
ICE Clear Credit	84,286,582	5,225,768,108	0.0
ICE Clear Europe	63,194,419	4,044,442,795	1.6
JCCC	79,377,178	4,683,253,503	1.8
LCH SA	10,481,568	670,820,352	0.3
LCH Ltd	3,316,337,500	212,245,600,000	81.4
OTC Clearing HK	634,213	37,418,577	0
Total	7,014,061,563	260,775,813,929	

Note: The EU represents about one-half of the global derivatives market. CDS are cleared through LCH ltd, the London-based arm of LCH.

Source: ISDA (2017a) estimates.

The location of systemic clearing facilities has become by far the most contentious issue in Brexit finance discussions. Just one day after the no-vote in the referendum, French President François Hollande stated that euro clearing facilities could no longer be based in London if the UK left the EU. The issue has been contentious since 2011, when the UK challenged the ECB before the European Court on its rules mandating CCP facilities clearing in euro to be based in the eurozone. But the Court of Justice of the European Union (CJEU) annulled the ECB's European Oversight Policy Framework on 4 March 2015, and ruled that the ECB lacked the necessary competence to regulate the activity of securities clearing systems, as its competence is limited to payment systems. The ECB now proposes to change the rules to ensure that this argument can no longer be used.

But is it not illusory to believe that euro derivatives clearing can be mandated to move? Large OTC derivatives business depends on an ecosystem of players that cluster in large financial centres. It requires the presence of large banks with big balance sheets, broker-dealers, institutional investors, law firms and a robust regulatory environment, experienced advisers and consultants, infrastructures and IT connections, all elements that cannot be easily moved. Opponents of the last round of EMIR amendments have claimed that no other European centre has the facilities that London possesses and that an excessively protectionist reaction will only damage the EU, and favour the US. It has also been argued that fragmentation of the market will increase the cost for market participants, because of reduced network effects (see for example ISDA, 2017b).

4. Assessment

It is still early to make an assessment of the impact of EMIR. Although the Regulation was adopted in 2012, the regulation is not yet fully implemented, and final elements will only enter into force in mid-2018. Also the price transparency part of the derivatives trading will only come into force with MiFID II in 2018. For certain elements, however, such as the application to pension funds and non-financial corporations, the continuation of the exemptions from central clearing had to be clarified.

The most critical element missing is an in-depth analysis of risk management within CCPs. The different impact assessments accompanying the Commission proposals demonstrate that CCPs have centralised risk in OTC derivatives markets, and have increased interconnectedness between large players in that market. The reports however lack an investigation on how risk management within CCPs has functioned so far, and its implications. CCPs are supposed to be risk poolers or mutualisers, and through initial margins, variation margins and the default fund, EMIR introduced the different layers of protection, enabling CCPs to withstand stress in financial markets.[6] How the different CCPs have implemented these provisions is not discussed in the impact assessments, nor is any comparative information available on CCPs balance sheets.

It is also regrettable that the Commission has not proposed a more integrated supervisory and resolution structure for CCPs in the EU. The June 2017 proposal, although it is called a European supervisory mechanism, mostly strengthens ESMA's role with regard to third-party countries

[6] Barker et al. (2016) examine the risks associated with central clearing. They suggest that when it comes to members assessing the risks and costs associated with their central clearing activities, their primary focus should be on funding and liquidity. Importantly, the fear that the wider application of central clearing to OTC derivatives will have a destabilising impact on the financial system due to contagion effects transmitted through CCPs is not supported by their experiment.

Borovkova and Lalaoui El Mouttalibi (2014) analyse the effect of central clearing of OTC derivatives on the financial system stability using a network simulation approach. They find that, for a homogeneous financial system, the presence of the CCP increases the network's stability and the probability of the CCP's failure is virtually zero. For non-homogeneous financial networks, however, they find the opposite effects: the presence of the CCP leads in this case to a disproportionately large probability of contagion defaults, especially for smaller financial firms.

CCPs, but not as much within the EU. It maintains the fragmented supervisory structure for CCPs within the EU, with ESMA mostly contributing to supervisory convergence. This is even more problematic in the case of CCP resolution. If the need were to arise to resolve a CCP in the course of a weekend, a multitude of authorities would be sitting around a table, a fact that is not materially changed by any of the proposed amendments discussed above. The home country would manage and chair the resolution college, but we have seen during the financial crisis how good these colleges functioned. Only the ECB, strengthened by its proposed amendment to the ECB statutes, would be ensured a bigger role in the deliberations. It is regrettable that the EU Commission did not dare to go further, as well for the supervision and resolution of CCPs. What we have now is a very incoherent structure.

Another problem is the difficulty for legislators to react to such technical proposals in three separate texts, as opposed to one single package that consolidated and synchronised all the elements that need to be addressed. This would have made it easier to explain the issue to legislators, to allow for a consistent piece of regulation. As it is now, the time required in legislative terms is enormous, for what are in essence very technical matters. This applies as well to the impact assessments. At the present time, the proposals are accompanied by three different impact assessments, each running about 100 pages. The time required to draft these could have been spent more usefully in analysing the risk management of CCPs in more detail, for example.

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Annex 1. G-SIFI membership/participation in major CCPs, February 2017

	G-SIFIs including subsidiaries	*LCH. Clearnet*	*ICE Clear Europe*	*CME Clear Europe*	*Eurex*	*Euro-CCP*	*CME*	*ICE Clear Credit*	*OCC*	*NSCC*	*FICC*	*JSCC*	*SGX Derivatives*	*OTC Clearing Hong Kong*
21 Financial Groups that signed the revised ISDA 2015 Universal Resolution Stay Protocol	Bank of America	X	X		X	X	X	X	X	X	X	X	X	
	Barclays	X	X		X	X	X	X	X	X	X	X	X	
	BNP Paribas	X	X	X	X	X	X	X	X	X	X	X	X	
	Citigroup	X	X	X	X	X	X	X	X	X	X	X	X	X
	Credit Suisse	X	X	X	X	X	X	X	X	X	X	X	X	X
	Deutsche Bank	X	X	X	X	X	X	X	X	X	X	X	X	
	Goldman Sachs	X	X	X	X	X	X	X	X	X	X	X	X	
	HSBC	X	X	X	X	X	X	X	X	X	X		X	X
	ING Bank	X			X				X	X	X			
	JP Morgan Chase	X	X	X	X	X	X	X	X	X	X	X	X	
	Mitsubishi UFJ FG	X			X				X	X	X	X		
	Mizuho FG	X	X		X		X		X	X	X	X	X	
	Morgan Stanley	X	X	X	X	X	X	X	X	X	X	X	X	
	Royal Bank of Scotland	X	X	X	X		X		X	X	X	X		
	Société Générale	X	X	X	X		X	X	X		X	X		
	Standard Chartered	X									X		X	X
	State Street		X		X		X			X	X			
	Sumitomo Mitsui FG										X	X		
	UBS	X	X	X	X	X	X	X	X	X	X	X	X	
	Unicredit Group	X	X		X									
	Wells Fargo	X	X				X	X	X	X	X			

Agricultural Bank of China													
Bank of China				*X*									*X*
Bank of New York Mellon	*X*			*X*					*X*	*X*			
China Construction Bank													
Groupe BPCE													
Groupe Crédit Agricole	*X*			*X*		*X*					*X*		
Industrial and Commercial Bank of China Limited	*X*							*X*	*X*	*X*			*X*
Nordea	*X*	*X*		*X*	*X*								
Santander	*X*	*X*		*X*	*X*	*X*			*X*				

Note: Consolidated at G-SIFI group level, based on FMIs' public websites.

Source: Huertas (2016).

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