

OTC Derivatives Clearing 101: Making Things Clear

Commissioned by Equinix



TABLE OF CONTENTS

IMPACT POINTS	4
INTRODUCTION	5
METHODOLOGY	5
THE CURRENT LANDSCAPE	6
TRADITIONAL LEVELS OF CLEARING VIA CCP	8
THE CCPs ON THE SCENE	10
REGULATION COMES INTO PLAY	14
U.S. MARKET	14
MARKET PARTICIPANTS IN THE SCOPE OF U.S. MARKET REGULATION	14
U.S. REGULATORY TIMELINE	15
EUROPEAN MARKETS	15
MARKET PARTICIPANTS IN THE SCOPE OF EUROPEAN REGULATION	16
EMIR TIMELINE	16
THE REST OF THE WORLD	17
AUSTRALIA	17
BRAZIL	17
CHILE	17
CHINA	17
HONG KONG	17
INDIA	17
JAPAN	18
MEXICO	18
SINGAPORE	18
SOUTH AFRICA	18
SOUTH KOREA	18
WHAT HAPPENED IN THE UNITED STATES?	19
THE FUTURE	21
ABOUT AITE GROUP	22
AUTHOR INFORMATION	22
CONTACT	22

LIST OF FIGURES

FIGURE 1: OTC DERIVATIVES CCP CLEARING WORKFLOW	6
FIGURE 2: THE GLOBAL LANDSCAPE FOR OTC DERIVATIVES CCPS	7
FIGURE 3: VOLUME OF CLEARED AND UNCLEARED OTC DERIVATIVES TRANSACTIONS.....	8
FIGURE 4: ANNUAL PERCENTAGE OTC DERIVATIVES CLEARED VS. UNCLEARED	9
FIGURE 5: LCH.CLEARNET MONTHLY NOTIONAL IRS CLEARING VOLUME	11
FIGURE 6: A TIMELINE OF OTC DERIVATIVES CLEARING DEADLINES IN THE UNITED STATES.....	15
FIGURE 7: KEY DEADLINES FOR EMIR	16
FIGURE 8: AGGREGATE CLEARING VOLUME FOR CLEARABLE OTC DERIVATIVES IN THE U.S. MARKET	19
FIGURE 9: OPEN INTEREST FOR OTC DERIVATIVES ACROSS ICE CLEAR, CME CLEARING, AND SWAPCLEAR	20

LIST OF TABLES

TABLE A: CCPS CLEARING OTC IRS, CURRENT AND PLANNED	10
TABLE B: CCPS CLEARING OTC CREDIT DERIVATIVES (CDS, CDX, AND ITRAXX), CURRENT AND PLANNED ..	12
TABLE C: CCPS CLEARING OTC EQUITY DERIVATIVES AND OTC FX DERIVATIVES, CURRENT AND PLANNED	12

IMPACT POINTS

- In Q3 2013, Aite Group gathered data from the clearinghouses and clearing central counterparties (CCPs) that currently clear over-the-counter (OTC) derivatives transactions across the globe and those that have announced they are planning to set up such operations in the next two or three years.
- Derivatives trading volume may have fluctuated between 2007 and 2012, but the percentage of cleared transactions has increased year over year since 2007, from 16.1% in 2007 to slightly less than 50% in 2012.
- The universe of CCPs currently clearing OTC derivatives is dominated by players in three key regions—North America (specifically the United States), Europe, and Asia. The same market infrastructure players crop up frequently in each region—Chicago Mercantile Exchange (CME), IntercontinentalExchange (ICE), and LCH.Clearnet.
- Regulation and newly planned CCPs will put Latin America, Africa, and Australia on the map for OTC derivatives clearing.
- The best-served OTC derivatives asset class in terms of current and planned CCP services is interest rate swaps (IRSs), with 17 CCPs across the globe focused on clearing this OTC instrument.
- Only six of the 17 CCPs have recently published any historical statistics for cleared volume of any OTC derivatives. The current dominant global player in the IRS market is LCH.Clearnet, with US\$390 trillion in gross notional open interest at the end of May 2013, followed by CME Clearing, with US\$6.9 trillion net notional, and Japan Securities Clearing Corporation (JSCC), with US\$6.7 trillion gross notional.
- Fewer new entrants are currently planning to support clearing for the OTC credit default swaps (CDSs) market, which likely reflects the much lower traditional volume of trading and central clearing for these instruments than for IRSs.
- ICE Clear Credit is the current dominant player in the CDS market, with US\$372 billion in open interest at the end of May 2013, and the CDX market, with US\$418 billion at that time. Its ICE Clear Europe subsidiary is the dominant CDS player in that region, with US\$315 billion in open interest.
- In terms of asset classes that will immediately fall under clearing obligations, the European regulations are currently broader in scope than the U.S. rules. European Market Infrastructure Regulation's (EMIR) requirements cover credit, interest rates, foreign exchange (FX), equity, and commodity derivatives and, unlike the U.S. Commodities Futures Trading Commission (CFTC) rules, include a broad range of historical contracts.

INTRODUCTION

The OTC derivatives markets are going through a period of significant change as a result of the post-crisis global regulatory overhaul, which is forcing these instruments to be traded on a regulated market (i.e., trading venue) and cleared via clearing central counterparties. Central clearing is the process in which financial transactions are cleared by a single CCP to reduce the counterparty risk between the two parties to a trade. Each party in the transaction enters into a contract with the CCP, so each party does not take on the risk of the other defaulting. It is this reduction in counterparty risk that regulators are keen to introduce in the world of bilaterally agreed and traditionally opaque OTC derivatives.

The clearing of OTC IRSs, OTC CDSs, and other similar instruments via a clearinghouse or CCP is nothing new—these services have been on the market for some time, albeit offered by a limited number of clearers. The regulatory mandate to clear as part of the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank), EMIR, and equivalent regulations in numerous other domestic markets, however, is causing a seismic shift in the global competitive landscape.

In order to meet the expected rise in clearing volume driven by regulation, an influx of new CCPs is expected in markets that already offer OTC derivatives clearing. Current dominant players are therefore likely to come under pressure to retain their market share. Domestic markets such as Chile and China that have not previously featured such services have seen moves by local players to begin down the road toward supporting OTC derivatives clearing. In the meantime, the rest of the world can look to the U.S. market as a precedent for how the clearing space is likely to be altered by regulatory changes.

This white paper, the first in a three-part series commissioned by Equinix, provides a guide to the evolving clearing landscape for OTC derivatives, highlighting the following:

- The list of current and planned CCPs across the globe
- Traditional levels of OTC derivatives clearing volume in the markets that currently support these services
- A timeline of recent and incoming regulatory changes in the United States and Europe, highlighting key differences between the jurisdictions
- An examination of the impact of Dodd-Frank Act requirements on clearing volume in the U.S. OTC derivatives markets as a precedent for the rest of the world

METHODOLOGY

Aite Group gathered data in Q3 2013 from the clearinghouses and CCPs that currently clear OTC derivatives transactions across the globe and those that have announced they are planning to set up such operations in the next two or three years. Clearers were asked to provide clearing volume data for the last two years (where available) and detail their roadmaps to add further capabilities in the near term. Outreach included CCPs from key regions such as North America, Europe, Asia-Pacific, Africa, and Latin America.

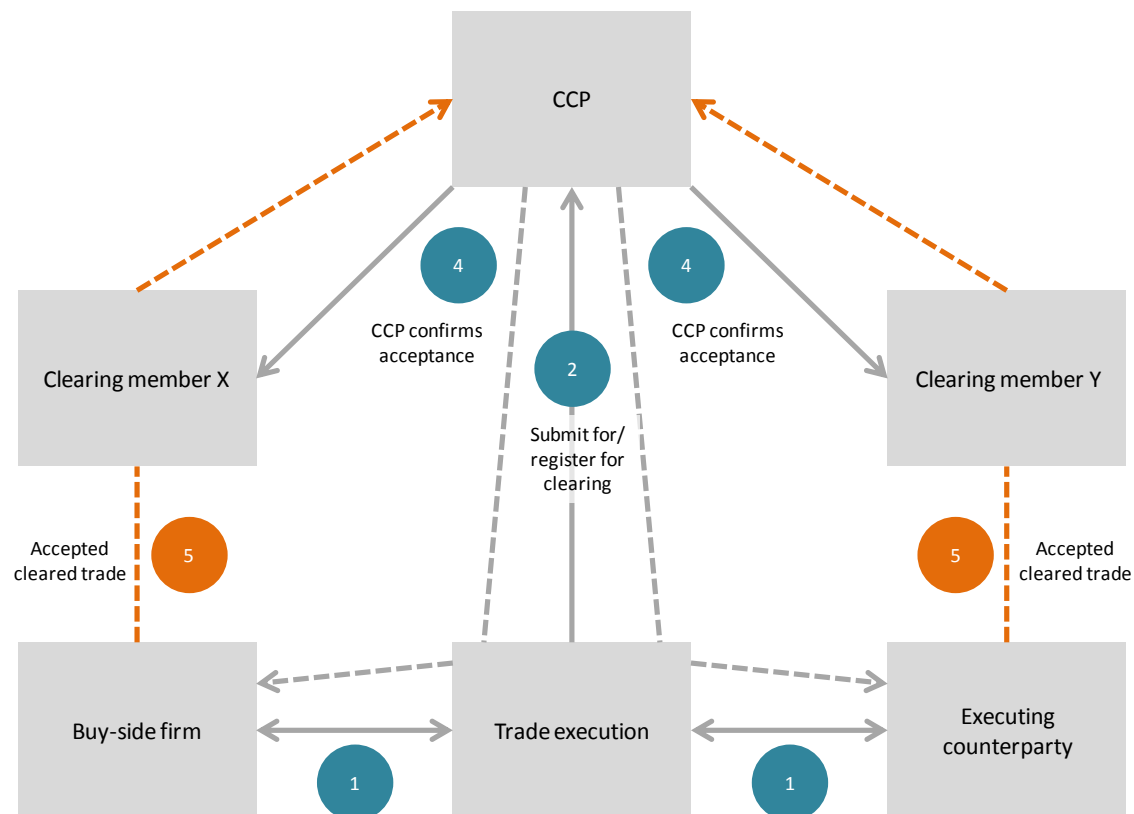
THE CURRENT LANDSCAPE

The global push for the clearing of OTC derivatives stems from a post-2008 financial crisis G-20 agreement to lessen perceived counterparty risk in these instruments by moving them from a bilateral clearing model to a CCP-based model. Most of these requirements focus on the swaps category of OTC derivatives, which encompasses:

- CDSs, which are priced against credit spreads
- IRSs, which are priced against interest rate spreads
- FX and currency swaps, which are priced against currency spreads

Figure 1 shows the post-trade workflow underlying a centrally cleared OTC derivative (not including any pre-trade checks), broken down into five steps: the execution process between a buy-side firm and the executing counterparty (these participants could be a variety of different types of firms, such as funds or swap dealers) via an execution venue, the submission of the trade for clearing to a CCP, the acceptance process at the CCP, the confirmation of its acceptance back to the relevant clearing members (though this can be direct in the case of direct clearing), and the communication of the accepted cleared trade to the buy-side and executing counterparty.

Figure 1: OTC Derivatives CCP Clearing Workflow

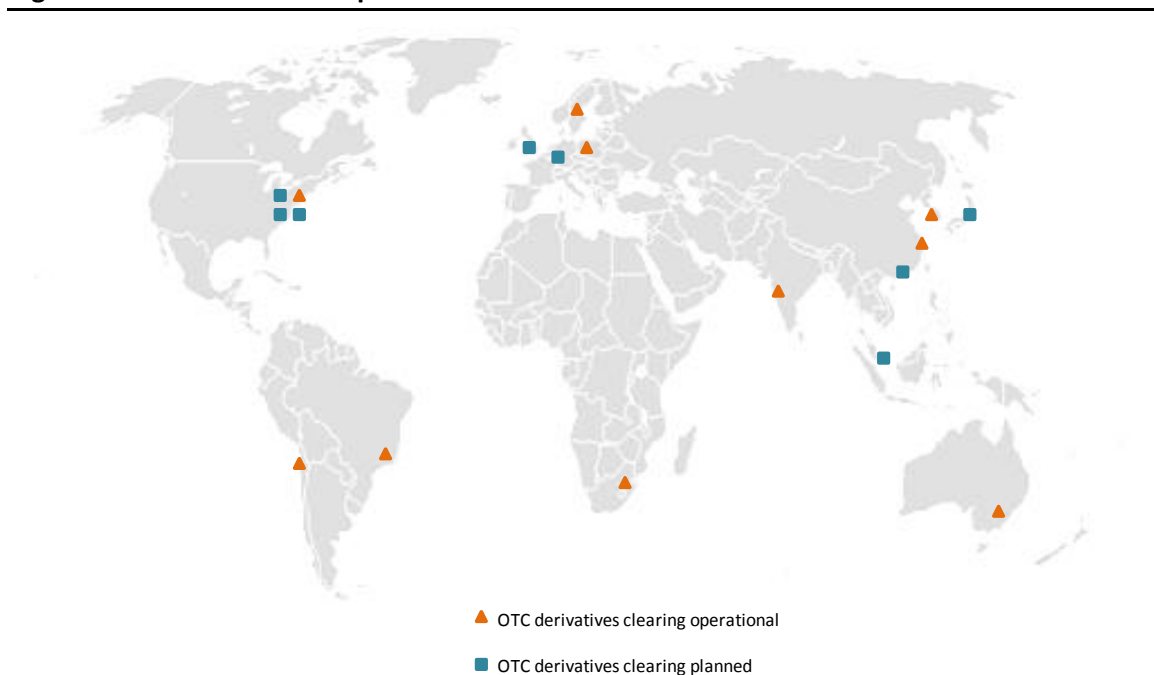


Source: Aite Group

The universe of CCPs currently clearing OTC derivatives is dominated by players in three key regions—North America (specifically the United States), Europe, and Asia. The same market infrastructure players also crop up frequently in each region. CME, ICE, and LCH.Clearnet all operate multiple CCPs serving several markets, and Eurex is a relatively established but niche player in Europe, though very ambitious.

A global playing field with a limited number of participants will not remain the case for long, given recent announcements by several domestic and regional players that they are planning to establish and operate their own OTC derivatives CCPs in various locations. These new CCPs will put Latin America, Africa, and Australia on the map for OTC derivatives clearing (Figure 2). This influx of new entrants is being driven by regulations such as EMIR and Dodd-Frank, which many think will compel significant volume increases in OTC derivatives clearing in asset classes such as IRS, CDS, FX derivatives, and equity options.

Figure 2: The Global Landscape for OTC Derivatives CCPs



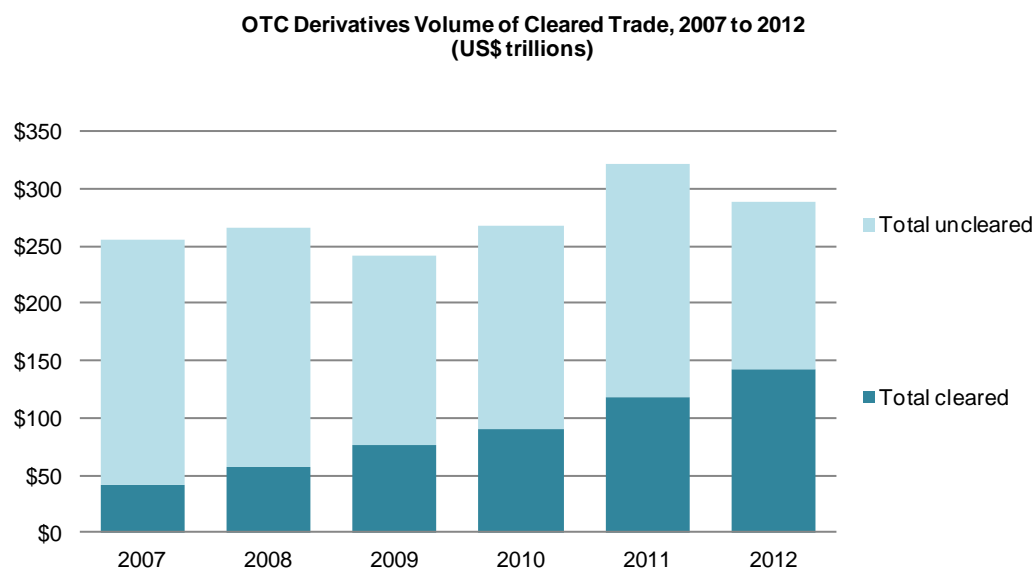
Source: Aite Group

TRADITIONAL LEVELS OF CLEARING VIA CCP

The lack of consolidated volume data across all clearers makes it relatively difficult to assess the percentage of total global OTC derivatives trades that are currently being centrally cleared via a CCP (versus those that are bilaterally cleared). The Bank for International Settlements (BIS) estimated in a March 2012 working paper¹ that the OTC derivatives asset class that had the highest percentage of cleared trades in 2010 was IRS, with 48% of notional volume for the year cleared via a CCP (based on combined BIS and TriOptima estimates). On the other hand, according to Financial Stability Board estimates, only 8% of CDS notional volume was cleared centrally in 2010, and no foreign exchange or equity derivatives were centrally cleared that year. Clearing of commodity derivatives is more difficult to estimate for 2010—between 20% and 30% could have been cleared via a CCP.

The International Swaps and Derivatives Association (ISDA) also gathers derivatives market statistics from CCPs, data vendors, market practitioners, and other derivatives market service providers on an annual basis.² Figure 3 shows Aite Group calculations based on the annual ISDA estimates for cleared and uncleared OTC derivatives between 2007 and 2012. The volume of cleared transactions totaled US\$289.2 trillion at year-end 2011, US\$310.8 trillion at mid-year 2012, and US\$346.4 trillion at year-end 2012. After adjusting for double-counting of cleared trades by reducing the totals by half (CCPs frequently report both sides of the cleared trade), those numbers were US\$144.6 trillion, US\$155.4 trillion, and US\$173.2 trillion, respectively.

Figure 3: Volume of Cleared and Uncleared OTC Derivatives Transactions

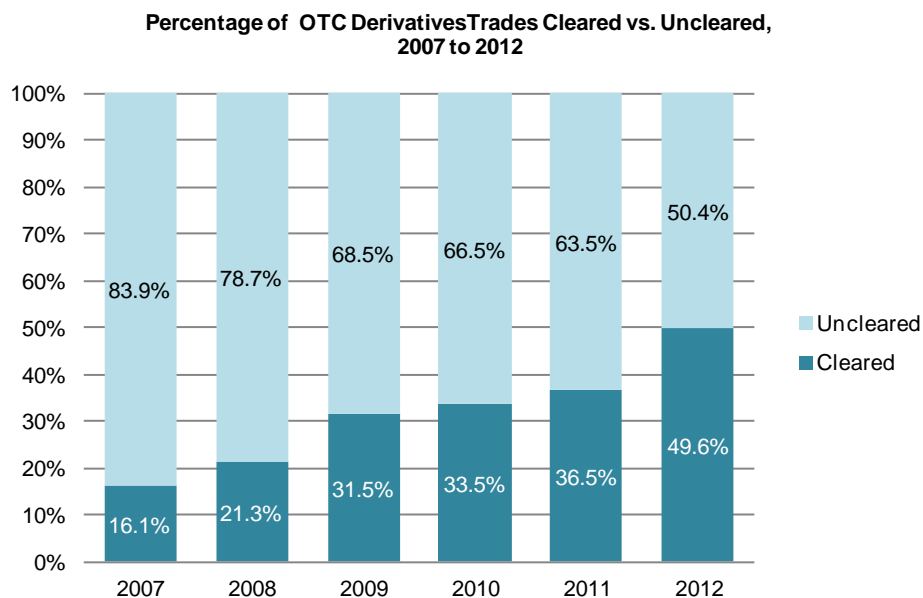


Source: ISDA OTC Derivatives Market Analysis Year-End 2012, Aite Group

1. "Collateral requirements for mandatory central clearing of over-the-counter derivatives," BIS Working Paper, March 2012.
2. "OTC Derivatives Market Analysis Year-End 2012," ISDA, December 2012.

Derivatives trading volume may have fluctuated over the six-year period, but the percentage of cleared transactions has increased year over year since 2007, from 16.1% in 2007 to slightly less than 50% in 2012 (Figure 4). There was a marked increase in cleared volume between 2011 and 2012, likely ahead of the regulatory push that was part of Dodd-Frank. One can reasonably assume that 2013 figures will indicate a further increase in OTC derivatives cleared volume, given the mandatory clearing deadlines that passed in the U.S. market in 2013.

Figure 4: Annual Percentage OTC Derivatives Cleared vs. Uncleared



Source: ISDA OTC Derivatives Market Analysis Year-End 2012, Aite Group

The most commonly traded clearable OTC derivatives instrument is IRS, followed by CDS and numerous swap indices that track the CDS markets. ITraxx is the brand name for the family of CDS index products owned by Markit that cover regions of Europe and Asia-Pacific. The most widely traded of the indices is the iTraxx Europe index. CDX indices cover North America and emerging markets, and the main Markit CDX index is Markit CDX North American Investment.

THE CCPS ON THE SCENE

The best-served OTC derivatives asset class in terms of current and planned CCP services is IRS, with 17 CCPs across the globe focused on clearing this OTC instrument. Table A lists the CCPs that are either currently clearing these assets (live) or are planning to launch services in the near future that will cover all key regions (Europe, North America, Asia) across the globe. The U.S. market is the best served in terms of current and planned on-the-ground presence of CCPs for IRS.

Table A: CCPs Clearing OTC IRS, Current and Planned

CCP	Main operations	Status
Australian Securities Exchange (ASX) Clear	Australia	Live (2013)
BM&F Bovespa	Brazil	Planned
Clearing Corporation of India Ltd. (CCIL)	India	Live (not margining)
CME Clearing	U.S.	Live
CME Clearing Europe	U.K.	Live
Comder Central Counterparty	Chile	Plans to go live in Q1 2015
Eurex	Germany	Live
Hong Kong Exchange (HKEx)	Hong Kong	Live (no requirement to clear until July 2014)
Japan Securities Clearing Corporation (JSCC)	Japan	Live
Johannesburg Stock Exchange (JSE)	South Africa	Investigating
KDPW	Poland	Live (no volume yet)
Korea Exchange (KRX)	South Korea	Plans to go live in October 2013
LCH.Clearnet	U.K., France, Luxembourg	Live
Nasdaq OMX/NOS Clearing	Norway	Planned
New York Portfolio Clearing (NYPC)	U.S.	Planned
Shanghai Clearing House	China	Planned
SwapClear U.S. (operated by LCH.Clearnet)	U.S.	Live

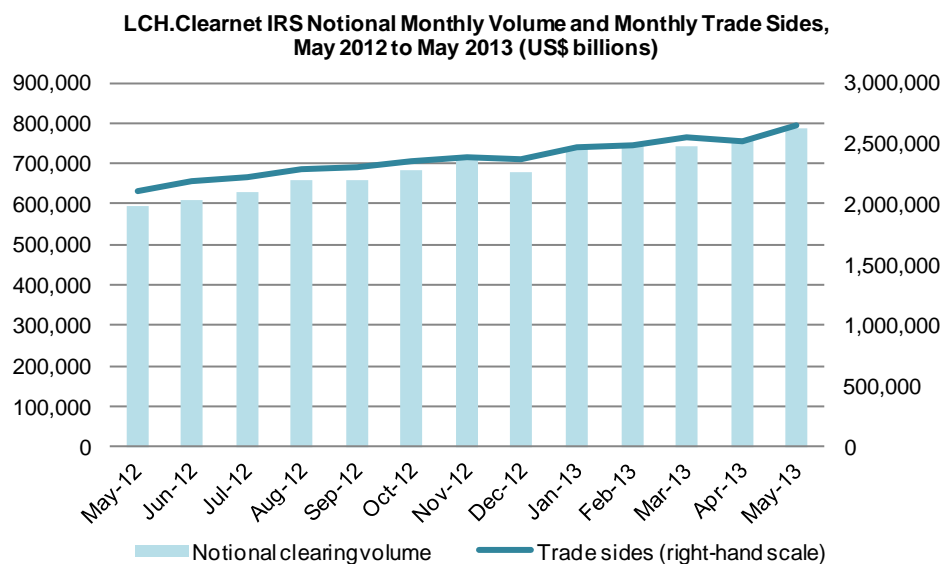
Source: Aite Group

Only six of these 17 CCPs have recently published and historical statistics for cleared volume. The current dominant global player in the IRS market is LCH.Clearnet, with US\$390 trillion in gross notional open interest at the end of May 2013, followed by CME Clearing, with US\$6.9 trillion net notional, and JSCC, with US\$6.7 trillion gross notional. CME only began clearing IRS in 2010

and currently clears fewer IRS asset classes than does LCH.Clearnet. The volume of LCH.Clearnet's U.S.-based subsidiary SwapClear is much lower than its parent clearer at US\$2 billion (net notional), but this is a 100% increase in volume from February 2013, when the clearing volume was nonexistent—the CCP began clearing operations in the United States on June 3, 2013.

SwapClear Global currently clears swaps in 17 currencies: US\$, EUR, and GBP out to 50 years, JPY to 40 years, AU\$, CA\$, CHF, and SEK to 30 years, NZD out to 15 years, and the remaining eight currencies out to 10 years. Figure 5 shows the monthly notional volume of trades cleared by LCH.Clearnet and the number of trade sides cleared on a month-end basis between May 2012 and May 2013. The CCP saw a fairly steady increase in clearing volume over the 12-month period, reflective of the global trend toward more clearing of OTC derivatives overall.

Figure 5: LCH.Clearnet Monthly Notional IRS Clearing Volume



Source: LCH.Clearnet

A smaller number of CCPs are live or planning to support single CDSs or CDS indices such as iTraxx or CDX, and Table B shows the current status of these CCPs. Fewer new entrants currently plan to support clearing for the OTC CDS market than for the IRS market, which likely reflects the much lower traditional volume of trading and central clearing for these instruments than for IRSs. The figures also reflect the decline in overall CDS trades across the market as a result of regulatory changes.

ICE Clear Credit is the current dominant player in the CDS market, with US\$372 billion in open interest at the end of May 2013, and the CDX market, with US\$418 billion. Its ICE Clear Europe subsidiary is the dominant CDS player in that region, with US\$315 billion in open interest. ICE Clear Credit is also the dominant clearer in the global iTraxx market, with US\$167 billion in notional volume. CME Clearing is currently active in OTC CDX, which it began clearing in 2009, and its notional volume as at the end of May 2013 was US\$80 billion. LCH.Clearnet cleared

US\$20 billion in both iTraxx and CDSs at the same point in time, and JSCC cleared US\$4.7 billion in CDSs. In July 2013, LCH.Clearnet's Paris-based operations received regulatory approval to begin clearing European CDS trades.

Table B: CCPs Clearing OTC Credit Derivatives (CDS, CDX, and iTraxx), Current and Planned

CCP	Main operations	Status
CME Clearing	U.S.	Live for CDX
CME Clearing Europe	U.K.	Plans for CDS and iTraxx in 2013
Eurex	Germany	Dormant for CDS and iTraxx
ICE Clear Credit	U.S.	Live for CDS and CDX
ICE Clear Europe	U.K.	Live for CDS and iTraxx
JSCC	Japan	Live for CDS
LCH.Clearnet	U.K., France, Luxembourg	Live for CDS and iTraxx in several European markets
Shanghai Clearing House	China	Planned for CDS

Source: Aite Group

Table C shows the number of CCPs planning to support either OTC FX options or OTC equity derivatives across the globe. There is very little volume data for these markets because most of these CCPs are at the planning stages of establishing clearing support for these instruments or have not yet released clearing figures, as is the case with Options Clearing Corporation. LCH.Clearnet is the current dominant market player for OTC FX derivatives, with US\$121 billion in notional cleared volume as of the end of May 2013. Singapore Exchange (SGX) launched Asia's first OTC clearinghouse in November 2010 and is working with Korea Exchange (KRX) on its OTC derivatives offering. NYSE Liffe's BClear service for OTC equity derivatives transitioned over from LCH.Clearnet to ICE Clear Europe in July 2013.

Table C: CCPs Clearing OTC Equity Derivatives and OTC FX Derivatives, Current and Planned

CCP	Main operations	Status
CCIL	India	Live for FX options
CME Clearing	U.S.	Live for FX options
CME Clearing Europe	U.K.	Planned for FX derivatives in 2013
Comder Central Counterparty	Chile	Planned for non-deliverable forwards (FX option) in Q4 2014
Eurex	Germany	Planned for equity options in Q4 2013
HKEx	Hong Kong	Planned for FX derivatives in October 2013

ICE Clear Europe	U.K.	Clearing BClear equity derivatives
KDPW	Poland	Live for equity options
KRX	Korea	Planned for FX derivatives in October 2013
LCH.Clearnet	U.K., France, Luxembourg	Live for FX derivatives
OCC	U.S.	Live for equity options
SGX	Singapore	Planned for FX derivatives

Source: Aite Group

REGULATION COMES INTO PLAY

Following the 2008 crisis, the U.S. market has been the global front-runner in terms of regulatory change, especially within the OTC derivatives space, from the passing of Dodd-Frank in 2010 to the subsequent drafting of rules for clearing by the U.S. CFTC and the U.S. Securities and Exchange Commission (SEC) in 2011 and 2012. The SEC has been tasked with regulating "security-based swaps" (swaps with a single underlying security or reference entity, or an underlying narrow-based security index) and the CFTC with the rest of the swaps market. The CFTC rules specify that central clearing will be required for most standardized OTC derivatives contracts by participants in these markets, though there are exemptions for specific market participants such as "commercial end users" that use swaps for interest rate risk hedging.

U.S. MARKET

Initially, only the simplest IRS products are subject to mandatory central clearing (other more complex assets will be added at a later date); hence, IRSs with optionality, dual currencies, or conditional notional amounts are currently excluded. This essentially means that clearing obligations on derivatives clearing organizations (DCOs) relate to IRSs in four currencies (US\$, EUR, GBP, and JPY), on major indices, and in four asset classes: fixed-to-floating swaps, basis swaps, forward rate agreements, and overnight index swaps.

Much like in IRS, only the simplest CDS asset classes are required to be cleared. These currently comprise North American untranched CDS indices on the Markit CDX family of indices and European untranched CDS indices on the iTraxx Europe family of indices. The CFTC has, however, indicated that it is planning to increase the derivatives classes required to be cleared; to do so, it will include more CDSs and IRSs and add other OTC swaps such as energy swaps and equity index swaps. In terms of historical contracts, trades executed before the clearing obligation is determined will not have to be cleared.

MARKET PARTICIPANTS IN THE SCOPE OF U.S. MARKET REGULATION

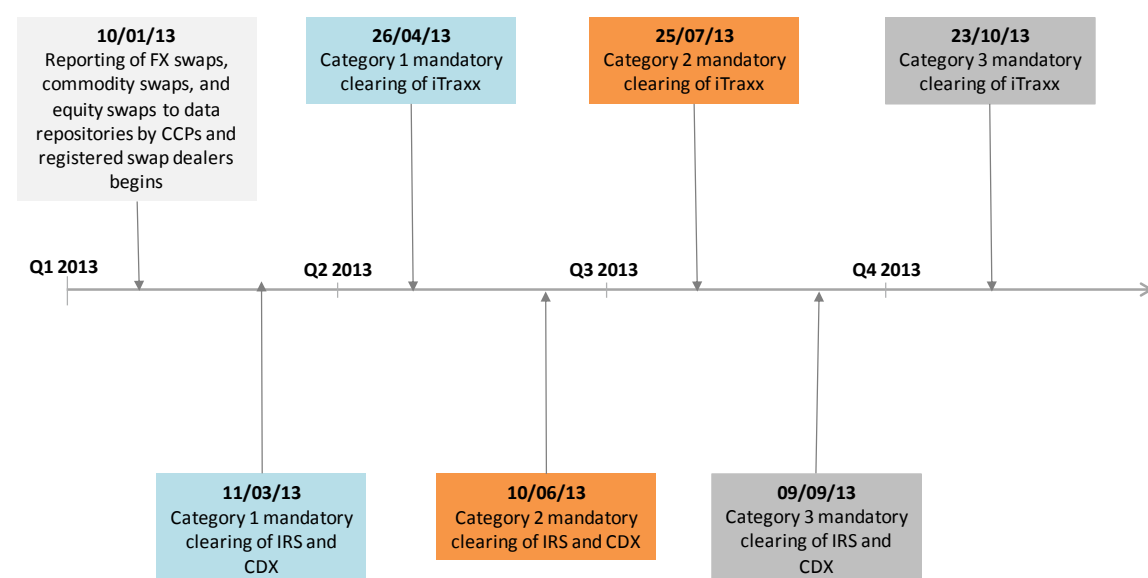
The CFTC rules break market participants into three categories:

- **Category 1** firms include swap dealers, active funds, and major swap participants (those that trade more than 200 derivatives a month), all of which became subject to the rules on March 11, 2013. This encompasses less than a hundred entities.
- **Category 2** firms include commodity pools, private funds other than active funds (largely encompassing hedge funds), employee benefit plans, and banking organizations. This encompasses anything from several hundred entities to 2,000.
- **Category 3** firms include those that deal in OTC derivatives via third-party sub-accounts and all other swap transactions (i.e., the rest of the wider derivatives universe).

U.S. REGULATORY TIMELINE

Figure 6 shows the 2013 timeline of regulatory deadlines for participants in the U.S. OTC derivatives markets (currently including overseas participants). The CFTC rules focus initially on the clearing of credit and interest rates derivatives, with IRS and CDX indices in the first round and iTraxx in the second round for each category of market participant. FX swaps and forwards are currently exempt from clearing obligations in the United States (but not in Europe). To enable central clearing, the CFTC has reviewed and approved certain CCPs and designated them as DCOs.

Figure 6: A Timeline of OTC Derivatives Clearing Deadlines in the United States



Source: Aite Group

The CFTC rules have, however, also become the center of global regulatory disputes around extraterritoriality, causing European and Asian regulators to enter into negotiations with the CFTC in order to bring Dodd-Frank requirements into line with those of EMIR and other equivalent regulations. To this end, on July 11, 2013, the CFTC and the European Commission indicated that they have agreed upon a "stricter-rule applies" approach for certain cross-border transactions: Where exemptions from clearing would apply in one jurisdiction but not another, such transactions would need to be cleared. This is referred to as "substantive compliance" by the CFTC.

EUROPEAN MARKETS

The European regulations are currently broader in scope than the U.S. rules in terms of asset classes that will immediately fall under clearing obligations. EMIR's requirements cover credit, interest rates, FX, equity, and commodity derivatives and, unlike the CFTC rules, include a broader range of historical contracts. Trades outstanding at the time of a notification to clear (and subsequently subject to a clearing obligation) must be novated to a CCP.

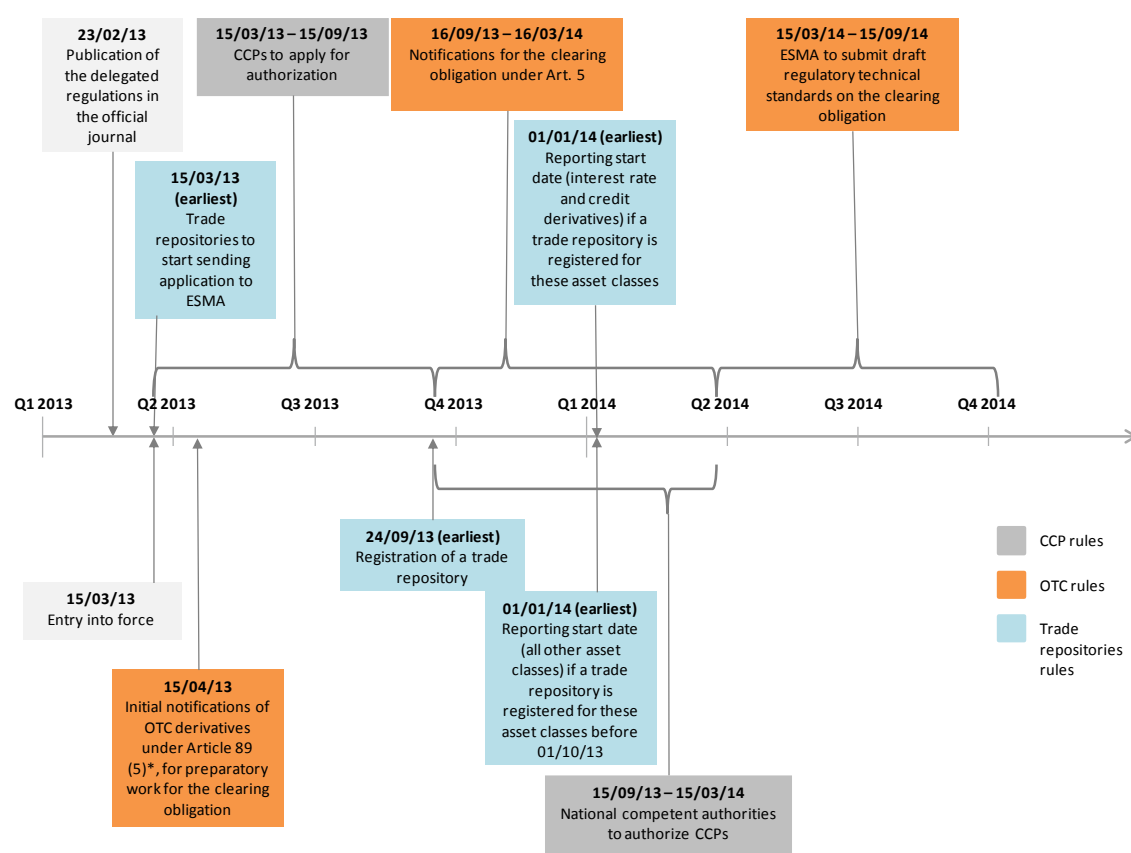
MARKET PARTICIPANTS IN THE SCOPE OF EUROPEAN REGULATION

The exemptions for clearing in Europe are also currently different than the U.S. CFTC rules. Pension funds have a three-year exemption (until August 15, 2015), and non-financial counterparties are exempt if non-hedging trading volume falls below thresholds agreed upon and approved by the relevant domestic competent authority/regulator.

EMIR TIMELINE

The European regulatory timeline is a great deal more complicated than the U.S. market's timeline due to the more complex procedure of drafting regulation on a regional (rather than national) basis. The clearing obligation timeline (Figure 7) is predicated on the March 15, 2014 European Securities and Markets Authority (ESMA) submission of the draft regulatory technical standards for clearing. These draft technical standards will then need to be first endorsed by the European Commission (a process that is expected to take between one and three months) and then passed by the European Parliament and the European Council (which will take between one and three months if the bodies do not object to any of the standards). The actual date that the clearing obligation will be applied will depend on the date of entry into force of these technical standards, and the expected phase-in period per type of counterparty has yet to be determined.

Figure 7: Key Deadlines for EMIR



Source: ESMA, Aite Group

THE REST OF THE WORLD

AUSTRALIA

Australia was initially planning to rely on market drivers to push forward OTC derivatives clearing rather than employing a regulatory mandate, but in June 2013 the Australian Council of Financial Regulators (comprising the Reserve Bank of Australia, the Australian Prudential Regulation Authority, and the Australian Securities and Investments Commission) advocated the mandatory clearing of US\$, GBP, JPY, and EUR-denominated IRSs. The regulators have not yet tabled a timeline for mandatory clearing, but the topic is up for discussion later in 2013.

BRAZIL

Brazil has not yet regulated the central clearing of OTC derivatives, but it has indicated that it will be reviewing this requirement on a periodic basis. Local exchange and clearing operator BM&F Bovespa is, however, planning to add capabilities to clear OTC IRS in the next few years.

CHILE

Chile is not a member of the G-20, but a group of Chilean banks have indicated their plans to establish a CCP for OTC derivatives in the domestic market. The new entity, Comder Central Counterparty, will begin clearing non-deliverable forwards (NDFs) in Q4 2014 and IRSs in Q1 2015.

CHINA

Shanghai Clearing House has been designated by the Chinese central bank as the official clearer for OTC derivatives in the country and has indicated its plans to clear onshore CDSs and IRSs by early 2014. OTC derivatives regulation is still in draft, but the first asset class likely mandated to clear will be IRS.

HONG KONG

The Hong Kong Monetary Authority (HKMA) has indicated that it expects mandatory clearing for OTC derivatives to begin in July 2014. The HKMA worked in concert with the Securities and Futures Commission and other stakeholders to develop a regulatory regime for OTC derivatives markets under the Securities and Futures Ordinance (SFO), including mandatory requirements for reporting specified OTC derivatives transactions to the domestic trade repository and clearing specified transactions at designated CCPs. It will mandate clearing for NDFs and IRSs in HK\$, CNH (offshore-traded renminbi), US\$, and EUR. It has not thus far imposed a location requirement that the trades have to be cleared in Hong Kong.

INDIA

The regulatory timeline for central clearing of OTC derivatives is not yet determined in India, but the local CCP—CCIL—has begun preparing to strengthen its ability to clear these instruments. The Reserve Bank of India has been in discussions with global regulators and industry bodies such as ISDA to determine the best way forward.

JAPAN

Japan is the Asian market that is furthest along in legislating OTC derivatives clearing, having passed its regulation in May 2010. JSCC expanded beyond its traditional remit of cash equities, corporate bonds, futures, and options, and began clearing OTC CDS in July 2011 and OTC IRS in October 2012. The first set of OTC derivatives to be cleared in 2011 were five-year CDSs based on the iTraxx Japan index of 50 investment-grade Japanese corporations.

MEXICO

Mexico anticipates central clearing obligations to be brought into force by summer 2013 for "standardized" OTC derivatives, and incentives will be introduced for the clearing of other derivatives.

SINGAPORE

Singapore has yet to introduce mandatory clearing requirements for OTC derivatives, but the Monetary Authority of Singapore has indicated that IRSs denominated in Singapore and U.S. dollars, and NDFs in Asian currencies, will fall within the scope of such requirements. OTC derivatives clearing already has a foothold in the country, given that SGX began clearing OTC commodity derivatives in 2006. In November 2010, it introduced clearing for IRS denominated in Singapore and U.S. dollars, and in November 2011 it added NDFs in seven currency pairs: Chinese renminbi, Indian rupee, Indonesian rupiah, Korean won, Malaysian ringgit, Philippine peso, and Taiwan dollar.

SOUTH AFRICA

South Africa says it is not currently planning to introduce mandatory clearing requirements for OTC derivatives, but its exchange operator is currently considering setting up clearing capabilities for IRS.

SOUTH KOREA

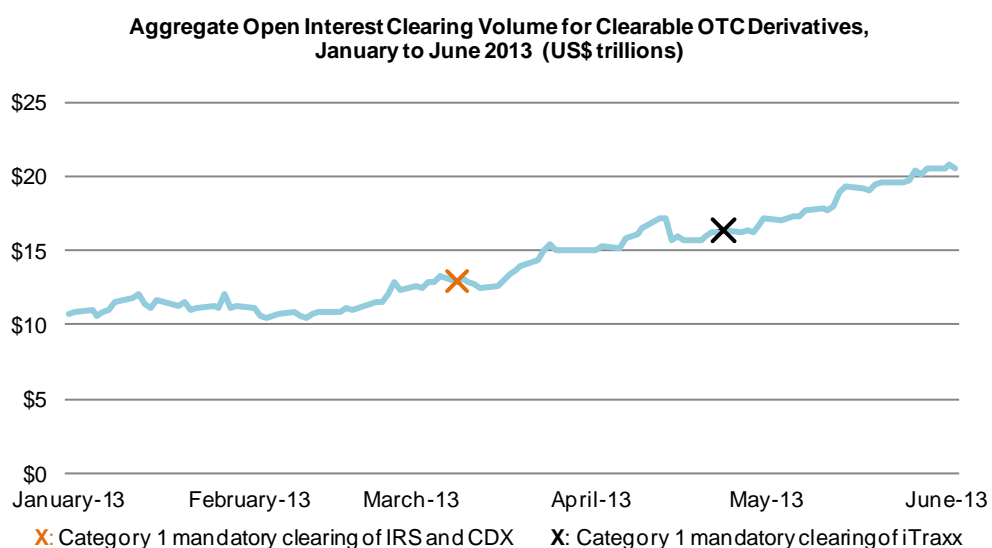
South Korea has already introduced voluntary clearing for OTC derivatives, but mandatory clearing for IRS in Korean won and FX derivatives (NDFs) is scheduled for October 2013. CDS clearing is expected to follow at an as-yet-undetermined later date.

WHAT HAPPENED IN THE UNITED STATES?

The U.S. market's role as the first to introduce mandatory OTC derivatives clearing for both domestic and cross-border trading means that it is possible to examine its clearing statistics and extrapolate what may happen on the global stage once equivalent regulation goes into force in other jurisdictions.

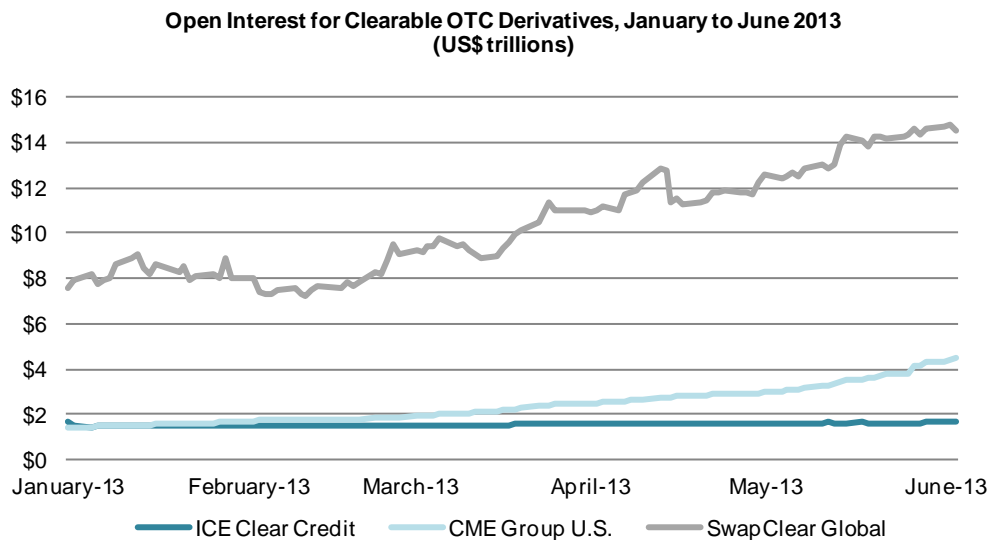
Figure 8 shows the aggregate notional volume of OTC derivatives clearing across the main three clearers in the U.S. market—CME Clearing, ICE Clear Credit, and SwapClear—during the first half of 2013, highlighting the two clearing deadlines that passed during the period. It is evident that clearing volume has increased from a relatively stable level at the start of the year to a sharper increase following the two category 1 clearing deadlines. It must be noted, however, that portfolio compression by TriOptima may reduce notionals overall; hence, some fluctuation may occur in notional figures on a month-on-month basis. TriOptima's TriReduce service involves periodic multilateral compression activity to reduce the volume of outstanding OTC derivatives trades.

Figure 8: Aggregate Clearing Volume for Clearable OTC Derivatives in the U.S. Market



Source: Aite Group, CME, ICE, SwapClear

Looking at volume on a clearer-specific basis, it is possible to see that CME's U.S. clearing volume has increased significantly over the period, from US\$1.4 trillion in January 2013 to US\$4.5 trillion in May 2013 (Figure 9), a volume increase of 221%. SwapClear Global has almost doubled its volume, from US\$7.6 trillion in January to US\$14.5 trillion in May. SwapClear LLC, the U.S. version of SwapClear, has increased from US\$0 in January to US\$2 billion of IRS in May. ICE Clear Credit, on the other hand, has experienced a relatively flat first half of 2013 in terms of volume, with January and May both around the US\$1.6 trillion mark. Trading of CDS has not been as robust as trading of IRS; therefore, clearing volume has not increased.

Figure 9: Open Interest for OTC Derivatives Across ICE Clear, CME Clearing, and SwapClear

Source: Aite Group, CME, ICE, SwapClear

These figures indicate that the global IRS market, given its relative size and global penetration, is likely to witness a more significant impact from mandatory clearing requirements than is the CDS market. After all, there are many more clearers in the IRS market globally. The clearing volume growth at the dominant market players SwapClear Global and CME Clearing has been robust, and it will be interesting to see whether this continues into the second half of 2013, given the category 2 and 3 deadlines during that time frame. It will also be interesting to see whether the transition of NYSE Liffe's derivatives clearing onto ICE Clear will have a significant impact on its figures in the second half of 2013.

THE FUTURE

- Derivatives trading volume may have fluctuated over the last seven years, but the percentage of cleared transactions has increased year over year since 2007—from 16.1% in 2007 to just below 50% in 2012. The market can expect continued acceleration in 2013 and beyond.
- A great degree of uncertainty remains about how global regulations related to OTC derivatives clearing obligations will fit together. One of the most pressing concerns is that the same product could be mandated for clearing in more than one jurisdiction, thus increasing the cost and complexity of compliance. The very notion of shoehorning a traditionally global OTC derivatives market into a local model (based on the way listed markets operate) is a contentious one.
- There is still some debate about whether euro-denominated OTC derivatives should be cleared via euro area-based CCPs rather than via London. This could result in further new entrants in the CCP universe in the near future.
- IRS clearing has certainly witnessed a volume increase as a result of the mandatory clearing requirements in the U.S. market. It will be interesting to see whether this is a precedent for the rest of the world.
- There is still a dearth of information on clearing volume from certain CCPs, especially those in Europe and Asia. It is hoped that regulatory requirements will improve transparency from CCPs as well as from market participants.

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