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ISDA®

Research Note

Key Trends in Clearing for Small Derivatives Users

The European Securities and Markets Authority (ESMA) recently drew attention to concerns about clearing access for smaller derivatives users. In a July 2016 consultation paper[1], it notes that "certain financial counterparties with a limited volume of activity appear to be facing difficulties in getting access to … clearing". In response, ESMA has proposed more time for these entities to implement the clearing mandate.

The issue of clearing access for smaller derivatives users in the US has also been raised as a concern. To further examine these issues, ISDA conducted an analysis of publicly available data on clearing. The Association also surveyed and held discussions with small derivatives users in both the US and European Union (EU).

Among our findings:

- Over the past 18 months, there have been significant changes in the market share and the level of required client segregated funds for cleared swaps held by the top US futures commission merchants (FCMs). These changes likely reflect FCM business model shifts due to the impact of new capital requirements, as well as rising operational costs.
- As a result, some derivatives users have faced dislocation from their existing FCMs, and have needed to establish new FCM relationships in order to continue using swaps that are mandated for clearing.
- While it appears they have largely been successful in doing so, their costs are increasing, as FCMs impose minimum revenue thresholds for their swaps clearing clients.
- Monthly mandatory minimum clearing fees or minimum revenue thresholds appear to be standard among larger clearing members in the EU and are increasingly common in the US.
- In Europe, where there is no exemption from clearing for small financial end users (as there is in the US), these fees will be especially significant. ISDA's analysis indicates the fees will range from $100,000 to $280,000 per year.
- It is difficult to precisely determine the total clearing costs that will be incurred in aggregate by small derivatives users based in the EU. ESMA estimates there are approximately 5,500 Category 3 financial counterparties. But a number of these are likely to be individual accounts managed by large asset managers that would not be subject to monthly minimums.

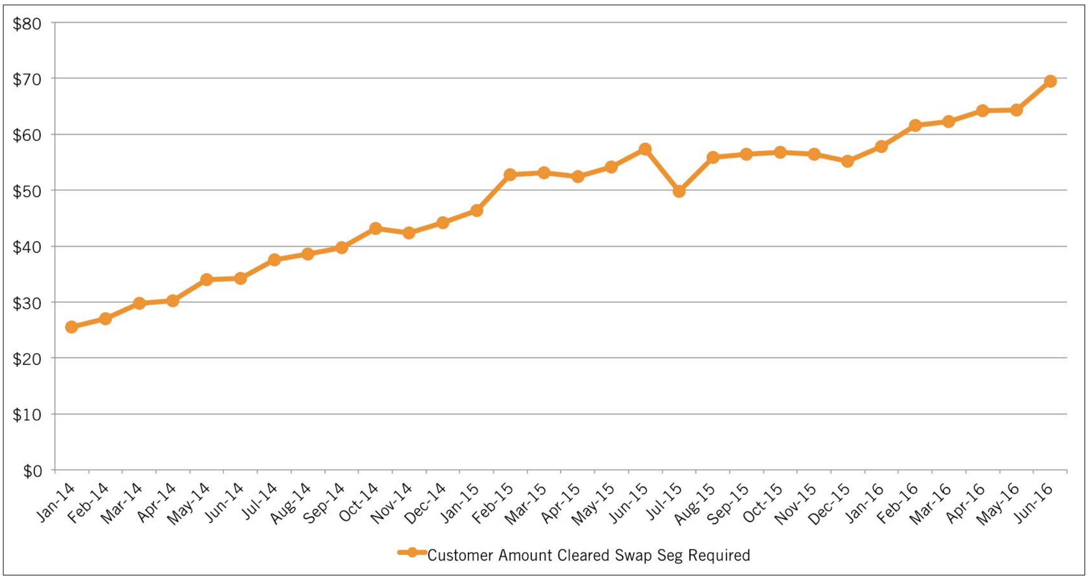
[1] ESMA Consultation Paper On the Clearing Obligation for Financial Counterparties with a Limited Volume of Activity: https://www.esma.europa.eu/sites/default/files/library/2016-1125_cp_on_clearing_obligation_for_financial_counterparties.pdf

CLIENT CLEARING IN THE US

Clearing volumes in the US have increased rapidly since the introduction of clearing mandates for certain interest rate and credit derivatives products in 2013 (see Appendix for phase-in schedule). In the second quarter of 2016, 83.9% of average daily interest rate derivatives (IRD) notional volume was cleared, according to data reported to US trade repositories[2].

The increase in clearing has resulted in a rise in segregated client funds held by FCMs, reflecting increased client clearing activity by financial derivatives users[3]. According to data reported to the Commodity Futures Trading Commission (CFTC), required segregated funds for cleared swap transactions reached $69.4 billion as of June 30, 2016, a rise of 103% since June 2014 (see Chart 1)[4].

Chart 1: Total Required Client Segregated Funds Held by FCMs for Cleared Swaps (January 2014 - June 2016, US$ billions)



Source: US Commodity Futures Trading Commission (CFTC), www.cftc.gov

While client clearing activity is increasing, there have been some changes in the FCM space. For example, the number of FCMs holding required client segregated funds has declined modestly (see Chart 2). During the first half of 2014, 22 FCMs held funds required of their clients for trades that had been executed. That had fallen to 19 by the first half of 2016[5].

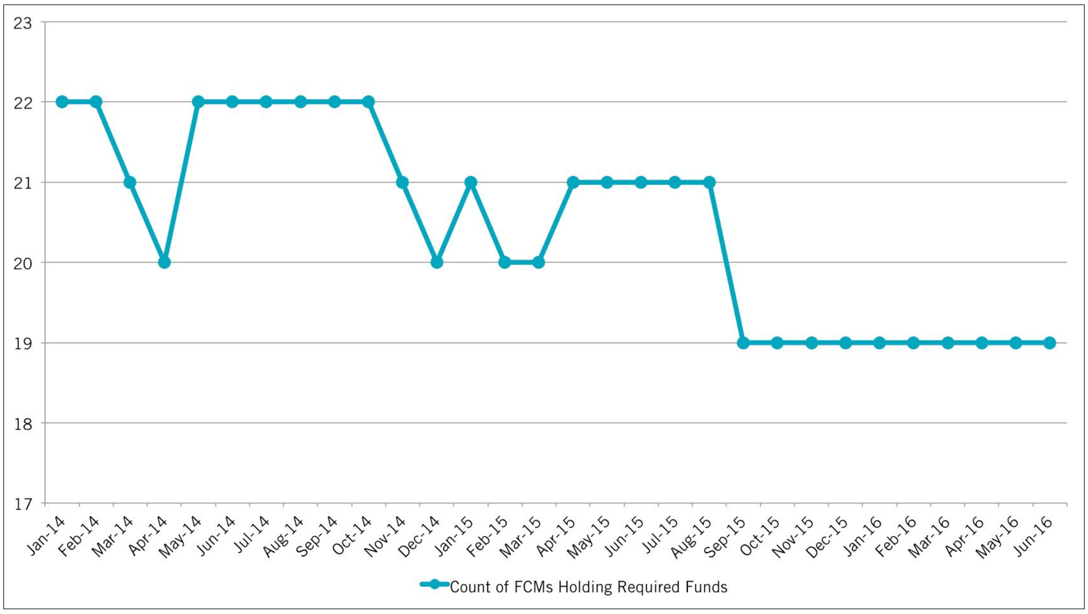
[2] DTCC and Bloomberg SDR data was used to determine this percentage and are available on www.swapsinfo.org

[3] The increase in central clearing of swaps has resulted in an increase in segregated client funds – which are held by FCMs and include all cash or securities used to margin or guarantee a swap cleared through a central counterparty

[4] Required funds are customer funds required by a CCP to be held against a trade

[5] The total number of registered FCMs has also decreased. There were 64 FCMs holding required segregated funds for futures and options clients in June 2014 and 55 in June 2016

Chart 2: FCMs Holding Required Client Segregated Funds (January 2014 - June 2016)



Source: US Commodity Futures Trading Commission (CFTC), www.cftc.gov

Of these, the 10 largest FCMs overwhelmingly dominate the client clearing business. The top 10 FCMs held 96% of required client segregated funds on June 30, 2016, unchanged from June 2015 and up from 94% in 2014. The top five firms alone accounted for 73% of funds at end-June 2016, up from 69% in 2015 and 63% in 2014.

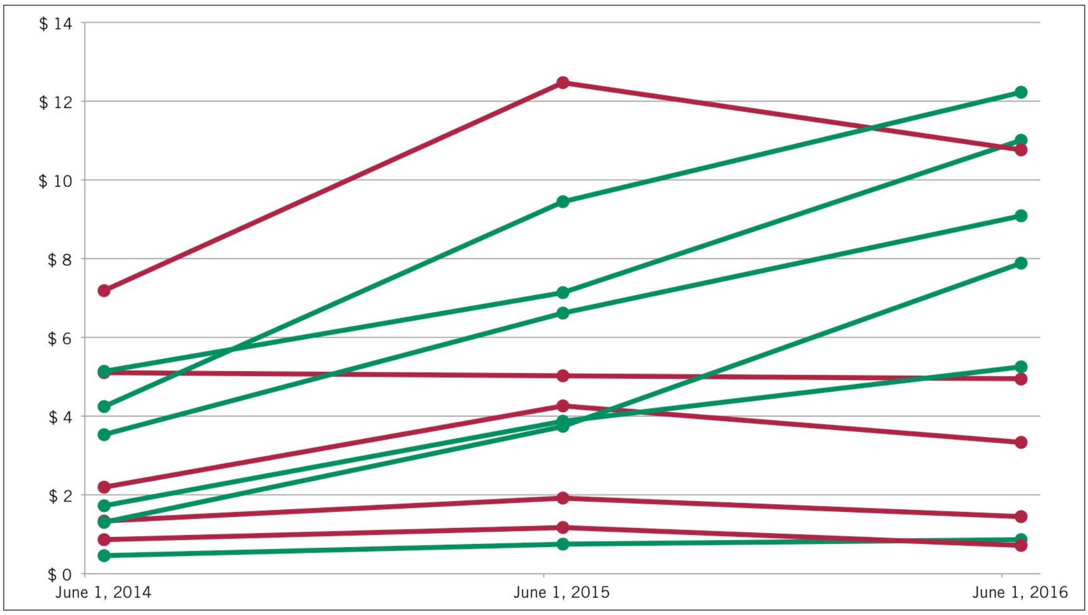
The identity of those firms is largely unchanged. Nine of the top 10 firms – and four of the top five firms – at mid-year 2014 were also in the top 10 and top five, respectively, at mid-year 2016.

However, there have been changes in the amount of required funds for client cleared swaps that each of these firms holds. While nine of the top 10 FCMs reported increases in the amount of required collateral held in segregated accounts for swaps clients between June 2014 and June 2015, some have seen declines over the past year.

As shown in Chart 3, five of the top 10 FCMs as of June 30, 2015 experienced a drop in the amount of required collateral they held in segregated accounts for swaps clients (red lines), while six saw increases (green lines)[6]. Despite this, the total amount of required segregated client funds for cleared swaps held by these firms continued to rise, with the declines far smaller ($3.6 billion) than the gains ($14.8 billion).

[6] There are 11 firms represented by green and red lines as a result of changes in the top 10 rankings between June 2014 and June 2016

Chart 3: Change in Top 10 FCM Holdings of Required Client Segregated Funds for Cleared Swaps (June 2014 - June 2016, US$ billions)



Source: US Commodity Futures Trading Commission (CFTC), www.cftc.gov

But while the top 10 FCMs have remained largely unchanged, the same cannot be said of the broader FCM universe for cleared swaps.

For example, five FCMs ceased to hold required funds for cleared client swaps between 2014 and 2016, while one FCM left the business due to a merger. At the same time, three new FCMs entered the market during 2015-2016.

Table 1 provides a more granular dataset used to define the trends noted in Chart 3.

Table 1: A Comparison of US FCM Data (US Dollar Amount of Required Client Segregated Funds for Cleared Swaps Held at the End of 1H14, 1H15 and 1H16)

June 2014			June 2015			June 2016		
CREDIT SUISSE SECURITIES (USA) LLC	7,191,779,921	21%	CREDIT SUISSE SECURITIES (USA) LLC	12,469,517,615	22%	MORGAN STANLEY & CO LLC	12,232,957,613	18%
CITIGROUP GLOBAL MARKETS INC	5,133,982,671	15%	MORGAN STANLEY & CO LLC	9,450,365,342	16%	CITIGROUP GLOBAL MARKETS INC	11,012,184,934	16%
BARCLAYS CAPITAL INC	5,112,797,641	15%	CITIGROUP GLOBAL MARKETS INC	7,136,662,069	12%	CREDIT SUISSE SECURITIES (USA) LLC	10,766,089,589	16%
MORGAN STANLEY & CO LLC	4,239,848,333	12%	JP MORGAN SECURITIES LLC	6,628,826,520	12%	JP MORGAN SECURITIES LLC	9,095,240,401	13%
JP MORGAN SECURITIES LLC	3,535,589,910	10%	BARCLAYS CAPITAL INC	5,024,651,814	9%	WELLS FARGO SECURITIES LLC	7,896,227,406	11%
GOLDMAN SACHS & CO	2,193,922,360	6%	GOLDMAN SACHS & CO	4,260,328,017	7%	MERRILL LYNCH PIERCE FENNER & SMITH	5,254,975,744	8%
MERRILL LYNCH PIERCE FENNER & SMITH	1,721,717,449	5%	MERRILL LYNCH PIERCE FENNER & SMITH	3,869,374,868	7%	BARCLAYS CAPITAL INC	4,953,572,154	7%
DEUTSCHE BANK SECURITIES INC	1,340,309,972	4%	WELLS FARGO SECURITIES LLC	3,749,379,495	7%	GOLDMAN SACHS & CO	3,331,979,299	5%
WELLS FARGO SECURITIES LLC	1,308,143,744	4%	DEUTSCHE BANK SECURITIES INC	1,918,848,356	4%	DEUTSCHE BANK SECURITIES INC	1,454,842,691	4%
UBS SECURITIES LLC	860,365,561	3%	UBS SECURITIES LLC	1,169,765,284	3%	HSBC SECURITIES USA INC	863,924,957	2%
OTHER	1,575,061,345	4%	OTHER	1,729,164,427	5%	OTHER	2,571,933,978	5%
HSBC SECURITIES USA INC	455,065,919	1%	HSBC SECURITIES USA INC	745,077,533	2%	RBC CAPITAL MARKETS LLC	795,007,319	1%
NEWEDGE USA LLC	439,313,779	1%	BNP PARIBAS SECURITIES CORP	604,190,996	1%	BNP PARIBAS SECURITIES CORP	762,893,074	1%
BNP PARIBAS SECURITIES CORP	312,309,184	1%	RBC CAPITAL MARKETS LLC	231,340,037	1%	UBS SECURITIES LLC	715,088,730	1%
STATE STREET GLOBAL MARKETS LLC	216,834,869	1%	SG AMERICAS SECURITIES LLC	128,764,924	0%	SG AMERICAS SECURITIES LLC	262,857,369	1%
MIZUHO SECURITIES USA INC	61,651,866	0%	JEFFERIES LLC	5,062,143	0%	MIZUHO SECURITIES USA INC	12,636,512	0%
JEFFERIES LLC	37,860,000	0%	MACQUARIE FUTURES USA LLC	4,431,202	0%	BNP PARIBAS PRIME BROKERAGE INC	11,516,825	0%
RBS SECURITIES INC	29,740,440	0%	MIZUHO SECURITIES USA INC	3,880,089	0%	MACQUARIE FUTURES USA LLC	9,035,104	0%
NOMURA SECURITIES INTERNATIONAL INC	14,499,545	0%	NOMURA SECURITIES INTERNATIONAL INC	3,440,297	0%	ADM INVESTOR SERVICES INC	1,625,051	0%
ADM INVESTOR SERVICES INC	3,928,726	0%	BNP PARIBAS PRIME BROKERAGE INC	1,890,936	0%	E D & F MAN CAPITAL MARKETS INC	1,273,994	0%
MACQUARIE FUTURES USA LLC	3,079,354	0%	ADM INVESTOR SERVICES INC	904,170	0%			
BNP PARIBAS PRIME BROKERAGE INC	691,749	0%	CHS HEDGING LLC	182,100	0%			
CHS HEDGING LLC	85,914	0%						
Total	**34,213,518,907**		**Total**	**57,406,883,807**		**Total**	**69,433,928,766**	

Source: US Commodity Futures Trading Commission (CFTC), www.cftc.gov

There are several factors behind the reshuffling, including rising operational costs and stringent capital rules for customer clearing, which have created challenges for many FCMs[7]. This means clients of those FCMs that have exited or scaled down the business would need to find an alternative clearing broker.

ISDA research indicates that FCMs have been able to largely absorb the client clearing business looking for a new home, as reflected by the continued rise in overall clearing volumes, the increase in segregated client funds, the increase in market share for some firms and the entry of new FCMs. They may, however, be imposing new requirements – such as mandatory minimum fees regardless of the number of swaps cleared – on smaller derivatives users.

As part of this research, ISDA interviewed 32 small derivatives users in the US and EU[8]. Most of the 16 end users in the US reported no issues related to clearing access – ie, in their ability to find and work with an FCM to clear their derivatives business. They do, however, cite other challenges related to clearing. The single biggest issue was high clearing-related fees.

For example, the majority of the smaller financial end users surveyed (11 firms) currently pay minimum fees ranging from $60,000 to $150,000 per year over the life of the swap(s) being cleared. (According to the US end users ISDA spoke with, the minimum fees include only transaction ticket charges and not fees related to initial margin. This is in contrast to the approach that appears to be taking shape in Europe, as discussed later in the paper.) Most respondents expect these fixed costs to increase, especially after their introductory rates roll off.

The reshuffling of FCMs was also a concern. Eight of the respondents only have one clearing broker, and two expressed concern about not having a back-up. One firm tried to add a second FCM but stated high fees prevented it from doing so.

Market participants surveyed were asked about how clearing frictions have affected their ability to manage risk, invest on behalf of their clients or generate returns. Eleven of the 16 firms surveyed indicated these challenges have not affected their ability to manage risk.

However, seven firms thought their risk management strategy would have to evolve as the cost of clearing hedges increases. While a few firms would opt to ride out any volatility unhedged, most preferred to employ a less expensive range of instruments, such as Treasury futures or swaps, which imperfectly address risk.

[7] In its response to the Basel Committee on Banking Supervision consultation on revisions to the Basel III leverage ratio framework, ISDA recommends considering the exposure-reducing effect of initial margin. See GFMA, JFMC and TCH response to the Basel Committee consultation on the leverage ratio, www.isda.org

[8] ISDA contacted 32 smaller derivatives end users (those that transact less than 100 swaps per year) in the US (16) and EU (16) via a series of one-on-one interviews and an online survey

CLIENT CLEARING IN THE EU

The European Market Infrastructure Regulation (EMIR) has phased in mandatory clearing for different market participants from December 21, 2015, beginning with certain interest rate derivatives[9,10].

Recent statistics indicate that about 66% of Europe's IRD market was cleared as of the first quarter of 2016[11]. This reflects the fact that the largest market participants (Category 1 and 2 firms) accelerated clearing ahead of their respective mandates taking effect on June 21, 2016 and December 21, 2016. Category 1 firms include clearing members of central counterparties (CCPs) – essentially, the largest derivatives dealers. Category 2 firms comprise financial counterparties with gross notional outstanding derivatives contracts above €8 billion.

Category 3 end users are defined as alternative investment funds and other financial counterparties with total derivatives gross notional outstanding of less than €8 billion. According to ESMA, these firms represent only 1%-5% of IRD volume and account for the vast majority (93%-94%) of derivatives counterparties[12].

Unlike other jurisdictions, the EU does not provide exemptions for smaller financial institutions, such as those considered to be Category 3. In contrast, the US allows an exemption for certain financial end users (banks, savings and loans, farm credit institutions and credit unions) with assets of less than $10 billion[13].

Of the 14,700 financial institutions operating in the US that fall into these categories, around 120 had assets greater than $10 billion, according to the CFTC. The remaining 14,580 entities represented approximately 99% of small financial institutions at the end of 2011 and are exempt from clearing. All other financial entities , regardless of their size and the size of their swaps portfolios, are required to clear mandated instruments.

ESMA recently proposed a delay in the clearing mandate for Category 3 end users, which recognizes that clearing imposes financial and operational costs on end users that are light users of derivatives and pose no systemic risk[14].

A clearing exemption is in place in the EU for some non-financial counterparties, government bodies, central banks and multilateral development banks. Pension funds were granted a temporary reprieve from clearing until August 2017, with the possibility of an extension through to 2019[15].

Although the clearing model for derivatives end users is different in the EU than in the US, common challenges are present in both regions.

[9] Click here for more information on EMIR legislative acts and proposals: http://ec.europa.eu/finance/financial-markets/derivatives/index_en.htm

[10] A timeline of the phase-in dates for each category is available in the Appendix of this report

[11] Noted in the April 8, 2016 ESA response to comments by ECON members on the ESA's final report on the draft RTS on risk-mitigation techniques for non-cleared derivatives as of March 8, 2016

[12] See Footnote 1

[13] According to the July 2012 US Commodity Futures Trading Commission (CFTC) public register, which details end user exemptions for the clearing requirement for swaps: http://www.cftc.gov/idc/groups/public/@lrfederalregister/documents/file/2012-17291a.pdf

[14] See Footnote 1

[15] Category 4 market participants include all non-financial counterparties (NFC) above the clearing threshold (NFC+) not included in categories 1, 2 and 3, and will be required to begin clearing in December 2018. Non-financial corporates considered to be NFC- firms are exempt from clearing

Currently, there are 50 Category 1 clearing members providing client clearing of G-4 interest rate swaps to CCPs in Europe[16,17]. Empirical data that would enable a comparison of trends across clearing brokers is not publicly available at this time, but ESMA recently discussed challenges to the European clearing model in its July 2016 consultation paper[18].

The paper states clearing brokers are reluctant to provide client clearing services to end users that transact a small number of derivatives, primarily because of the high capital allocation needed to conduct that business as a result of the Basel III leverage ratio[19]. As a result, they are implementing minimum annual revenue thresholds or clearing fees on their clients.

How much are these revenue thresholds?

Clearing members in the EU are required under EMIR to disclose their clearing-related fees. ISDA examined a number of these disclosures for leading clearing members. Their minimum revenue thresholds or minimum clearing fees range from $100,000 to $280,000 per year[20].

It is difficult to estimate the precise number of small derivatives users these fees would apply to. ESMA's consultation paper estimates there are 5,855 financial counterparties in the EU, of which 94.3% or 5,521 are Category 3. These 5,521 counterparties represent 1.1% of the total interest rate swaps notional outstanding held by all EU counterparties as of end-February 2016.

Some of these 5,521 counterparties, however, would not be subject to monthly minimums because a portion of them are likely to be individual accounts managed by large asset managers (for which such minimum fees would not apply). This makes determining the aggregate cost of clearing for small derivatives users challenging to assess.

ISDA also examined the level of derivatives volume that would activate the minimum threshold to see how many Category 3 firms might trigger it. For this analysis, ISDA used the clearing member disclosures of their expected fees per trade.

These estimates include transaction fees, which range from $750 to $1,500 per ticket, as well as initial margin fees, which range from 50 to 100 basis points of initial margin for each trade or for the portfolio of trades that a client has with a clearing member. For one $100 million cleared derivatives trade, the fee would range from $5,750 to $11,500. It would take roughly two such derivatives trades per month of this size to avoid the minimum fee (or more of a smaller size).

16 Click here for LCH current membership: Click here for LCH current membership: http://www.lch.com/en/members-clients/members/current-membership

17 Click here for list of clearing members of Eurex Clearing AG in Category 1 for the purpose of the clearing obligation Under EMIR: Click here for list of clearing members of Eurex Clearing AG in Category 1 for the purpose of the clearing obligation Under EMIR: http://www.eurexclearing.com/clearing-en/resources/clearing-contacts

18 See Footnote 1

19 Under the Basel III leverage ratio, banks and their affiliates must hold a certain amount of capital against risk exposure. However, the leverage ratio allows no recognition of the initial margin in the calculation of the clearing member's exposure to the client. Thus, clearing swaps becomes a potentially capital-intensive endeavor. For more information: Basel III Leverage Ratio Framework and Disclosure Requirements http://www.bis.org/publ/bcbs270.pdf

20 These estimates are based on public filings provided by EU clearing brokers under EMIR. Clearing costs and fees are variable and are based on individual negotiations between an EU clearing broker/US FCM and its respective client

The ESMA consultation paper, however, reveals that the average notional outstanding of interest rate swaps for each Category 3 financial counterparty is roughly $671.4 million[21]. This figure indicates that many Category 3 firms to which a minimum revenue or clearing fee will apply would, in fact, incur such a charge.

This issue is highlighted by ISDA's survey respondents. High minimum clearing fees were most often cited among the list of clearing challenges by EU respondents (seven of 16 firms).

Another issue raised by small derivatives end users in Europe (five firms) relates to the legal and operational complexities associated with clearing. Only three firms of those surveyed expected to centrally clear their swaps without incident.

End users were split when asked if hurdles related to clearing access would impact their ability to manage risk, invest on behalf of their clients, or generate returns. At this point, most (12 firms) expected little would change.

Many firms are still researching the fixed costs related to clearing derivatives and establishing clearing broker relationships. Currently, most participants believe they would take on one clearing broker – consistent with US small financial end user responses. This mirrors comments in the ESMA consultation paper, which notes that end users will have more difficulty finding a back-up clearing broker[22].

In addition to becoming a clearing member or transacting with a clearing broker, European end users may opt for a third way to centrally clear trades, known as indirect clearing.

This arrangement involves a set of contractual relationships between the CCP, a clearing member, the client of a clearing member and a client of the client (referred to as an indirect client). The goal of this arrangement is to allow the client of the clearing member to provide clearing services to the indirect client.

According to ESMA, the proposed longer chain of clearing has presented some operational and legal complexities relating to account structure and segregation models, as well as default management requirements[23].

Most of the European end users ISDA interviewed did not view indirect clearing as a viable alternative to using a clearing broker.

[21] This figure is derived by taking 1.1% of the total volume estimated at $337 trillion in the ESMA consultation paper and dividing it by 5,521 Category 3 financial counterparties

[22] See 15 on page 8 in ESMA consultation paper:
https://www.esma.europa.eu/sites/default/files/library/2016-1125_cp_on_clearing_obligation_for_financial_counterparties.pdf

[23] See ESMA consultation paper: https://www.esma.europa.eu/sites/default/files/library/2016-1125_cp_on_clearing_obligation_for_financial_counterparties.pdf

CONCLUSION

In line with the Group-of-20 commitments to strengthen the global financial system and reform derivatives markets, a dramatic shift to central clearing of swap transactions has taken place.

Recently, questions have arisen with regard to the challenges smaller derivatives end users – widely believed to pose no systemic risk – face with respect to central clearing.

ISDA research reveals that smaller derivatives end users most often view the cost of clearing, as well as related legal and operation complexities, as the largest obstacles to the clearing process. Increasing operational and regulatory costs to clear derivatives are forcing clearing members to rethink their clearing strategy, with some withdrawing from the business. The emergence of new entrants has helped absorb this business, but FCMs are typically setting minimum revenue thresholds or clearing fees.

These fees are being passed onto small derivatives end users in the US that transact a few swaps per year to manage business risk. In Europe, the majority of the region's small derivatives users are also expecting to be affected by minimum fees as the clearing mandate becomes enforced. As a consequence, some smaller end users would consider choosing instruments other than swaps that imperfectly address risk to manage derivatives portfolios.

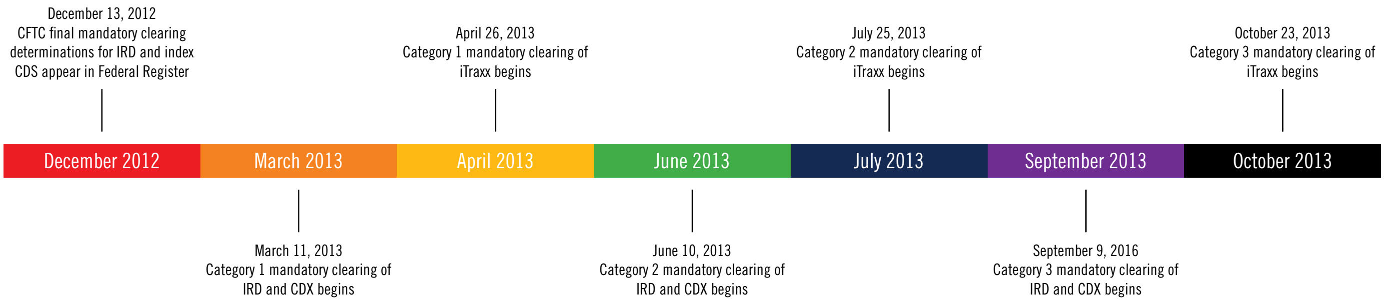
APPENDIX

US CLEARING MANDATE

In the US, the CFTC issued the first mandatory clearing determinations under the Dodd-Frank Act in 2012. Market participants that are in-scope of the regulation are currently required to clear certain interest rate derivatives, as well as some index credit default swaps (CDS).

The implementation of the CFTC clearing mandate occurred in three phases, as shown in Chart 4. The mandate applies to swap dealers and financial end users (including private funds, commodity pools, regional banks, credit unions, credit card processors and asset managers)[24,25].

Chart 4: The Dodd-Frank Clearing Timeline[26]



24 Category 1 entities, which include swap dealers and private funds, were required to begin clearing mandated instruments on March 11, 2013; Category 2 entities, which include commodity pools, private funds and persons predominantly engaged in activities that are in the business of banking, or activities that are financial in nature, were required to clear mandated swaps as of June 10, 2013; Category 3 firms include all other entities, including employee benefit plans, as well as third-party subaccounts, and were required to begin clearing on September 9, 2013.

25 Click here for more information on DCOs: http://www.cftc.gov/IndustryOversight/ClearingOrganizations/index.htm

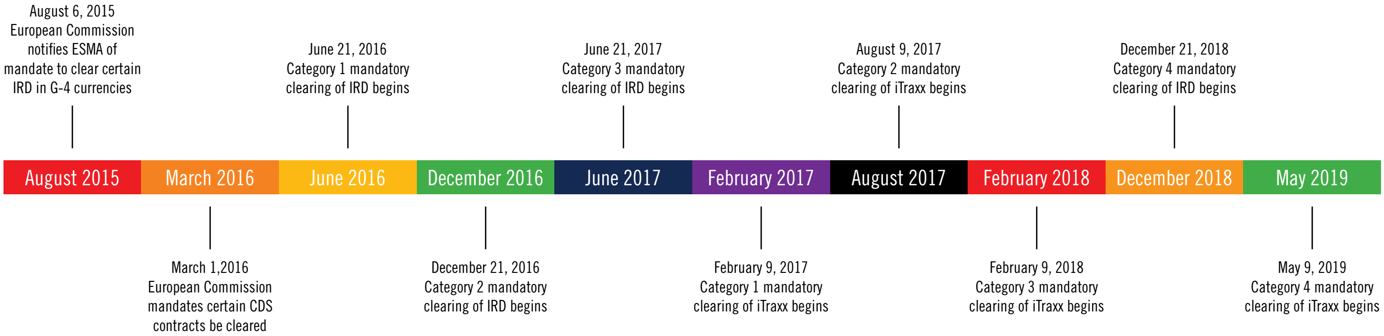
26 For a list of US products mandated to be cleared, see: CFTC Announces that Mandatory Clearing for Category 2 Entities Begins Today: http://www.cftc.gov/PressRoom/PressReleases/pr6607-13

EU CLEARING MANDATE

In Europe, the first phase under the new rules for G-4 interest rate derivatives came into force on June 21, 2016. Clearing members are now required to clear certain interest rate derivatives, such as fixed-floating, basis and overnight index swaps, as well as forward rate agreements.

The European clearing timeline differs in duration and product implementation when compared to the US timeline, as shown below in Chart 5. Although the instruments included in the mandate are similar to those that are currently in scope in the US, the phase-in for various market participants and swaps occurs over a longer stretch of time.

Chart 5: The EMIR Clearing Timeline[27]



[27] For a list of products mandated to be cleared in the EU see: OTC Derivatives and Clearing Obligation: https://www.esma.europa.eu/regulation/post-trading/otcderivatives-and-clearing-obligation

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- ***SwapsInfo Second Quarter 2016 Review,*** August 2016
  http://www2.isda.org/attachment/ODY0Nw==/Swaps%20review%20August%202016%20FINAL.pdf

- ***Derivatives Market Analysis: Interest Rate Derivatives,*** July 2016
  http://www2.isda.org/attachment/ODU2NA==/OTC%20Derivatives%20Market%20Analysis%20-%20July%202016-V3.pdf

- ***Cross-Border Fragmentation of Global Interest Rate Derivatives: Second Half 2015 Update,*** May 2016
  http://www2.isda.org/attachment/ODM4NQ==/Fragmentation%20FINAL1.pdf

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ABOUT ISDA

Since 1985, ISDA has worked to make the global derivatives markets safer and more efficient. Today, ISDA has over 850 member institutions from 67 countries. These members comprise a broad range of derivatives market participants, including corporations, investment managers, government and supranational entities, insurance companies, energy and commodities firms, and international and regional banks. In addition to market participants, members also include key components of the derivatives market infrastructure, such as exchanges, clearing houses and repositories, as well as law firms, accounting firms and other service providers. Information about ISDA and its activities is available on the Association's web site: www.isda.org.