

SwapsInfo Third Quarter 2017 Review

The ISDA SwapsInfo Quarterly Review provides analysis of interest rate derivatives (IRD) and index credit default swap (CDS) trading activity. The report provides a breakdown of publicly available data to analyze the impact of regulatory change on swap execution facility (SEF) and bilateral trading volumes, as well as cleared and non-cleared activity.

IRD and index CDS traded notional and trade count data is taken from the ISDA SwapsInfo website (swapsinfo.org), using information from the Depository Trust & Clearing Corporation and Bloomberg swap data repositories (SDRs). This report covers only trades required to be disclosed under US regulatory guidelines.

KEY HIGHLIGHTS FOR THIRD QUARTER OF 2017

Interest Rate Derivatives

During the third quarter of 2017, IRD traded notional amount rose by 9.8% to \$46.4 trillion from \$42.2 trillion in the third quarter of 2016. Trade count grew by 5.6% over the same period, to 281,623 from 266,754.

In the first nine months of 2017, IRD traded notional amount and trade count increased by 17.6% and 7.6%, respectively, compared with the first nine months of 2016.

In the 12 months ended September 30, 2017, IRD traded notional amount and trade count rose by 17.1% and 9.1%, respectively, compared to the 12 months ended September 30, 2016.

In the third quarter of 2017:

- Average daily notional for IRD totaled \$713.3 billion, while average trade size was \$157.4 million. Average daily trade count was 4,333.
- Cleared IRD transactions represented 87.2% of traded notional and 80.5% of trade count.
- SEF-traded swaps represented 54.6% of notional and 58.9% of trade count.
- Single currency fixed-for-floating interest rate swaps (IRS) accounted for 64.7% of total IRD trades, but represented only 29.7% of IRD traded notional. Forward rate agreements (FRA) and overnight indexed swaps (OIS) represented 15.3% and 5% of total trade count and 34% and 23.9% of traded notional, respectively.
- IRD contracts in US dollars remained the most actively traded instruments, contributing 61.8% of traded notional and 51.4% of trade count. Euro-denominated transactions accounted for a far smaller percentage of notional (15.7%) and trade count (15.7%).

Index Credit Default Swaps

Index CDS traded notional increased by 13.4% to \$1.8 trillion in the third quarter of 2017 from \$1.6 trillion in the third quarter of 2016. Trade count contracted over the same period, with the number of trades falling by 5.8% to 47,791.

In the first nine months of 2017, index CDS traded notional and trade count declined by 8.2% and 18.1%, respectively, compared with the first nine months of 2016.

In the 12 months ended September 30, 2017, index CDS traded notional and trade count fell by 8.5% and 16.7%, respectively, compared to the 12 months ended September 30, 2016.

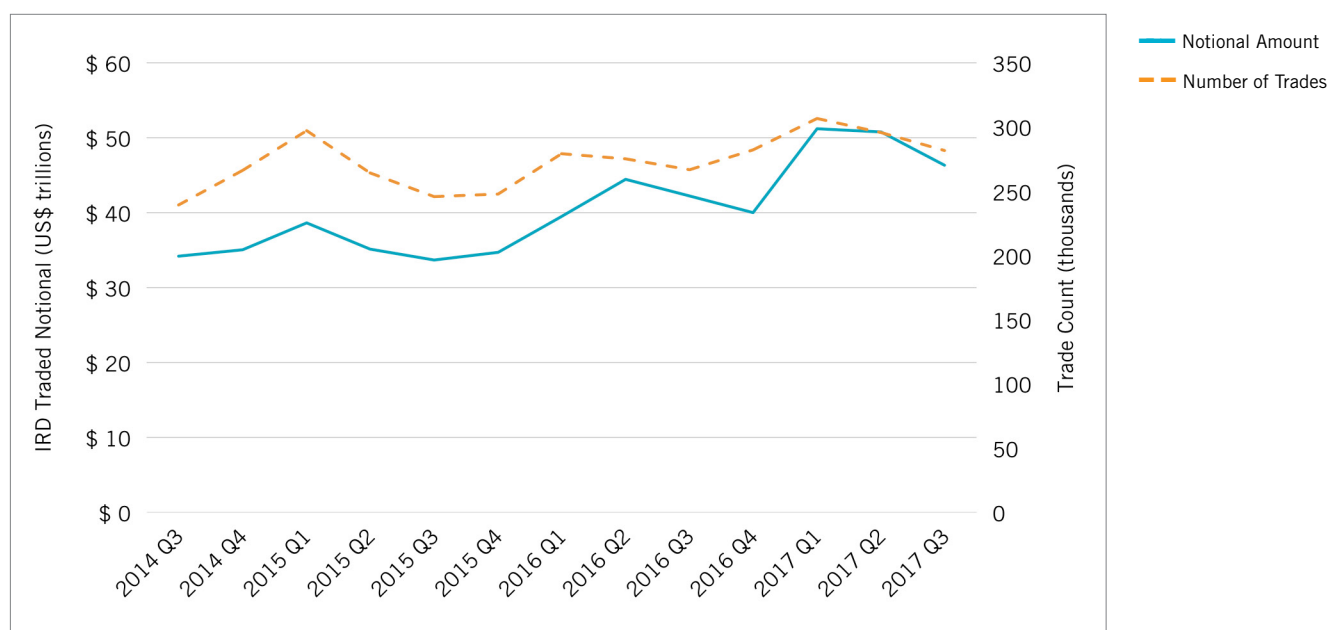
In the third quarter of 2017:

- Average daily notional for index CDS totaled \$27.7 billion, average trade size was \$36.2 million and average daily trade count was 735.
 - Cleared transactions represented 81.2% of traded notional amount and 81.7% of trade count.
 - SEF-traded index CDS represented 75.8% of notional amount and 76.7% of trade count.
 - CDX HY and CDX IG represented 15.7% and 34.7% of traded notional and 28.8% and 23.7% of total trade count, respectively. iTraxx Europe accounted for 27.5% of total index CDS traded notional and 25.1% of total trade count.
 - Index CDS contracts denominated in US dollars remained the most actively traded instruments. US dollar-denominated index CDS represented 67.1% of index CDS traded notional and 71.3% of trade count. Euro-denominated transactions accounted for 32.6% and 28.2% of traded notional and trade count, respectively.
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INTEREST RATE DERIVATIVES

During the third quarter of 2017, IRD traded notional amount rose by 9.8%, from \$42.2 trillion to \$46.4 trillion, versus the third quarter of 2016. Trade count grew by 5.6% over the same period, from 266,754 to 281,623.

IRD Traded Notional and Trade Count



Source: DTCC and Bloomberg SDRs

In the first nine months of 2017, IRD traded notional increased by 17.6% to \$148.5 trillion versus \$126.2 trillion in the first nine months of 2016. Trade count increased by 7.6% over the same period, from 821,489 to 884,102.

In the 12 months ended September 30, 2017, IRD traded notional rose to \$188.5 trillion, a 17.1% increase from \$161 trillion for the 12 months ended September 30, 2016. IRD trade count grew by 9.1% over the same period, from 1,069,283 to 1,166,433 transactions.

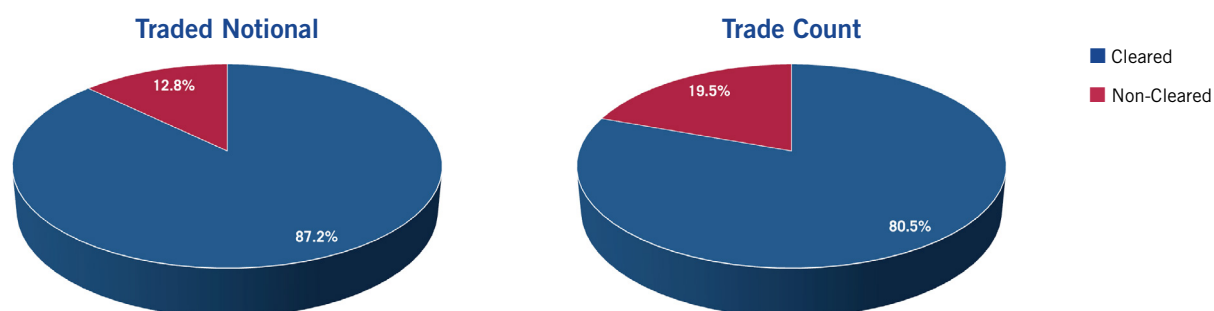
IRD Statistics: Average Daily Notional, Trade Count and Trade Size Quarterly Statistics

In the third quarter of 2017, average daily notional for IRD totaled \$713.3 billion, while average trade size was \$157.4 million. Average daily trade count was 4,333.

	Average Daily Notional (US\$ billions)	Average Daily Trade Count	Average Trade Size (US\$ millions)
Q3 2017	713.3	4,333	157.4
Q3 2016	639.6	4,042	153.5
Q3 2017 vs. Q3 2016	11.5%	7.2%	2.5%
YTD 2017	761.3	4,534	160.0
YTD 2016	644.1	4,192	146.9
YTD 2017 vs. YTD 2016	18.2%	8.2%	8.9%
LTM 2017	725.0	4,486	153.5
LTM 2016	614.7	4,083	142.8
LTM 2017 vs. LTM 2016	17.9%	9.9%	7.5%

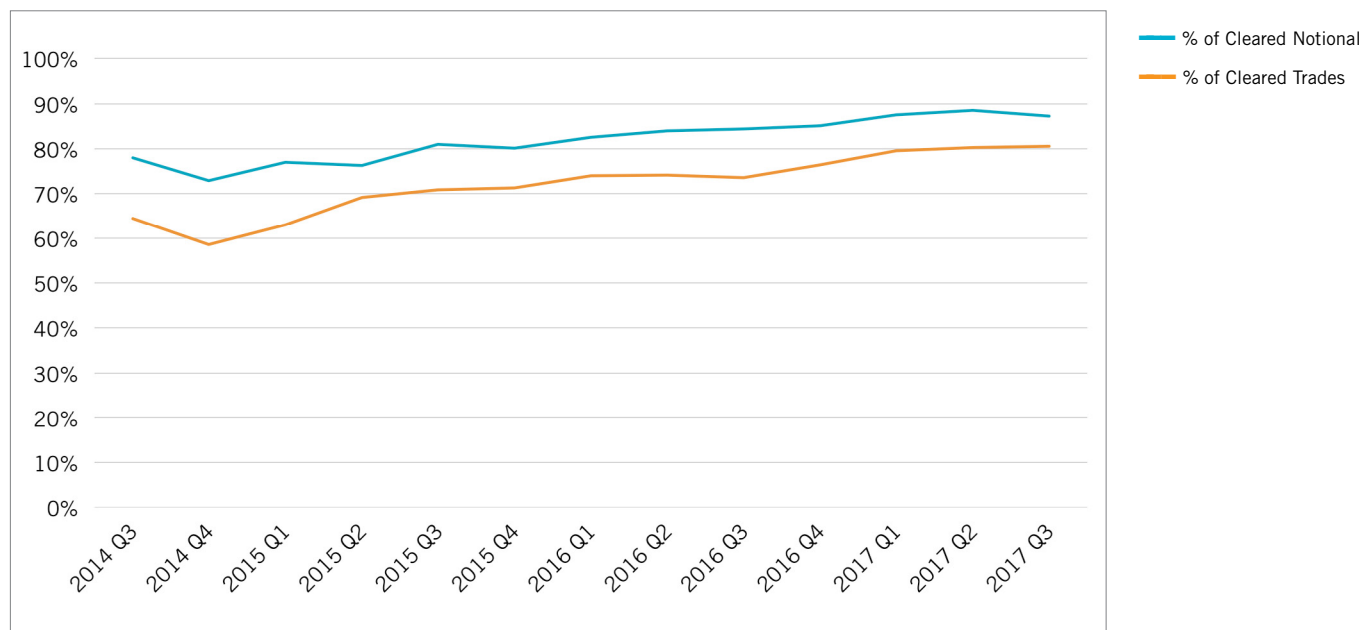
IRD Statistics: Central Clearing

Cleared IRD transactions represented 87.2% of traded notional and 80.5% of trade count during the third quarter of 2017. Traded notional amount of IRD cleared transactions was \$40.4 trillion and total trade count was 226,841.



The percentage of both cleared traded notional and cleared trade count has been gradually increasing over the past three years.

Percentage of IRD Cleared Notional and Trade Count



Source: DTCC and Bloomberg SDRs

IRD cleared notional totaled \$40.4 trillion in the third quarter of 2017, a 13.5% increase from \$35.6 trillion in the third quarter of 2016. Cleared trade count grew by 15.6% over the same period, from 196,253 to 226,841. IRD cleared notional increased by 23.2% in the first nine months of 2017, to \$130.3 trillion from \$105.6 trillion in the first nine months of 2016. Trade count increased by 16.7% over the same period. Cleared notional also picked up in the 12 months ended September 30, 2017 compared to the 12 months ended September 30, 2016, increasing by 23.2% from \$133.4 trillion to \$164.3 trillion. Trade count grew by 18% from 783,554 to 924,374 over the same period.

Non-cleared IRD notional amount fell by 9.8% in the third quarter of 2017 versus the third quarter of 2016, from \$6.6 trillion to \$5.9 trillion. Trade count decreased by 22.3% over the same period, from 70,501 to 54,782. In the first nine months of 2017, non-cleared notional and trade count declined by 11.9% and 18.1% compared with the first nine months of 2016, to \$18.2 trillion and 175,603, respectively. Non-cleared notional amount for the 12 months ended September 30, 2017 declined to \$24.2 trillion, a 12.4% decrease compared with \$27.6 trillion for the 12 months ended September 30, 2016. Trade count declined by 15.3% from 285,729 to 242,059 over the same period.

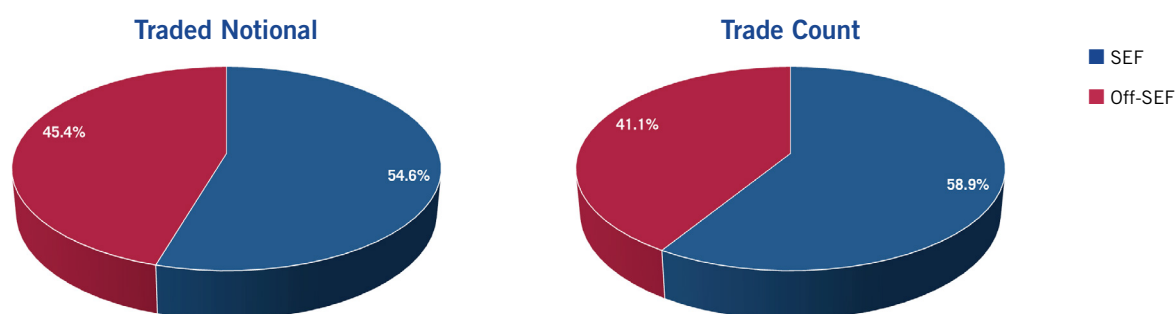
Central Clearing: IRD Traded Notional and Trade Count



Source: DTCC and Bloomberg SDRs

IRD Statistics: Trading Venue

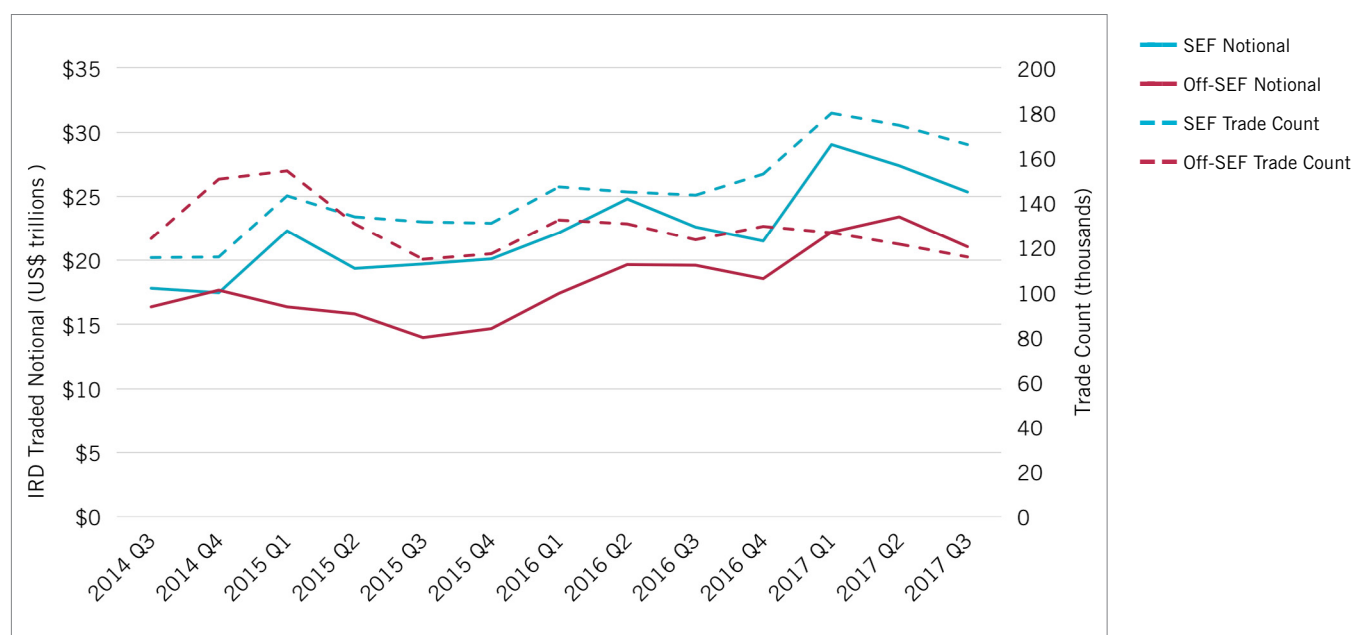
During the third quarter of 2017, SEF traded notional grew at a faster pace than off-SEF traded notional. SEF-traded IRD represented 54.6% of notional volume and 58.9% of trade count. Total IRD notional amount executed on SEFs was \$25.3 trillion, while \$21.1 trillion was executed off-SEF. 165,784 transactions were executed on SEFs and 115,839 transactions occurred off-SEF.



In the third quarter of 2017, notional IRD executed on SEFs grew by 12.1% compared with the same period a year ago, from \$22.6 trillion to \$25.3 trillion. The number of trades executed on SEFs increased by 15.7% from 143,342 to 165,784 over the same period. In the first nine months of 2017, notional and number of trades executed on SEFs totaled \$81.8 trillion and 520,128, respectively, a 17.6% and 19.5% increase from the first nine months of 2016. For the 12 months ended September 30, 2017, notional executed on SEFs jumped up by 15.2% to \$103.3 trillion from \$89.6 trillion in the 12 months ended September 30, 2016. Trade count increased by 18.9% from 566,044 to 673,012 over the same period.

Notional amount transacted off-SEF increased by 7.3% from \$19.6 trillion in the third quarter of 2016 to \$21.1 trillion in the third quarter of 2017. However, the number of transactions decreased by 6.1% over the same period, from 123,412 to 115,839. In the first nine months of 2017, notional transacted off-SEF increased by 17.6% to \$66.7 trillion from \$57 trillion in the first nine months of 2016. For the 12 months ended September 30, 2017, notional amount executed off-SEF grew by 19.4%, but trade count declined by 2% compared with the prior year. Notional amount increased from \$71.4 trillion to \$85.3 trillion, and the number of transactions declined from 503,239 to 493,421.

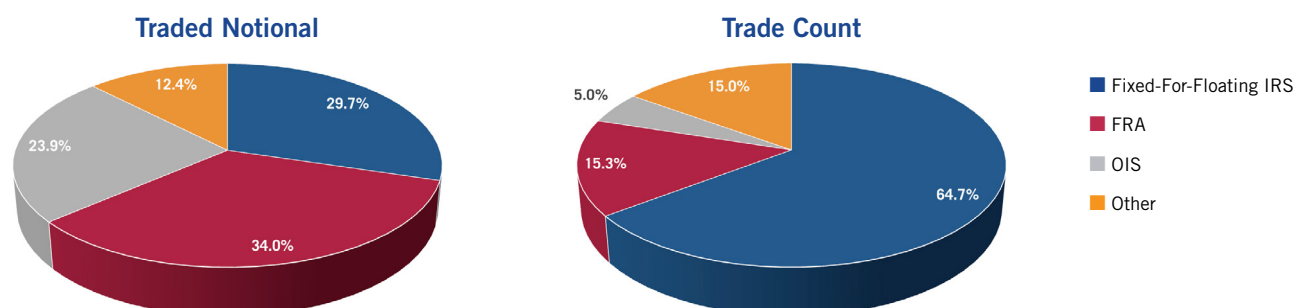
SEF and Off-SEF IRD Traded Notional and Trade Count



Source: DTCC and Bloomberg SDRs

IRD Statistics: Product Taxonomy

Single currency fixed-for-floating IRS accounted for 64.7% of IRD trade count, but represented only 29.7% of IRD traded notional. FRAs and OIS represented 34% and 23.9% of traded notional and 15.3% and 5% of trade count, respectively, in the third quarter of 2017.

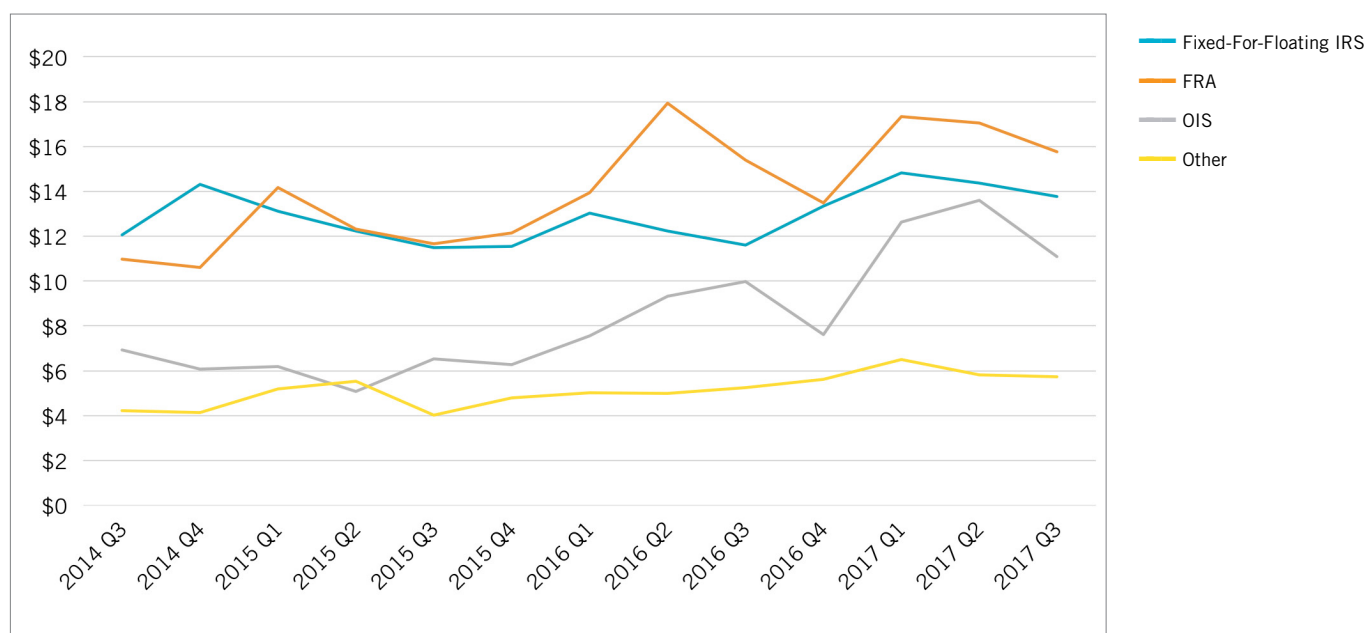


Fixed-for-floating IRS traded notional increased by 18.8% from \$11.6 trillion in the third quarter of 2016 to \$13.8 trillion in the third quarter of 2017. IRS trade count increased by 5.3% quarter-over-quarter. In the first nine months of 2017, fixed-for-floating IRS traded notional and trade count grew by 16.7% and 6.1%, respectively, compared with the first nine months of 2016, and totaled \$43 trillion and 596,551. Traded notional for the 12 months ended September 30, 2017 increased by 16.4% to \$56.3 trillion from \$48.4 trillion a year ago, and trade count grew by 8.5% year-over-year.

OIS traded notional increased by 11% from \$10 trillion in the third quarter of 2016 to \$11.1 trillion in the third quarter of 2017, and grew by 35.4% from \$33.2 trillion to \$44.9 trillion year-over-year. OIS trade count increased by 2.1% during the third quarter of 2017 compared with the third quarter of 2016, and by 25.5% year-over-year. In the first nine months of 2017, OIS traded notional and trade count grew by 38.8% and 20%, respectively, compared with the first nine months of 2016.

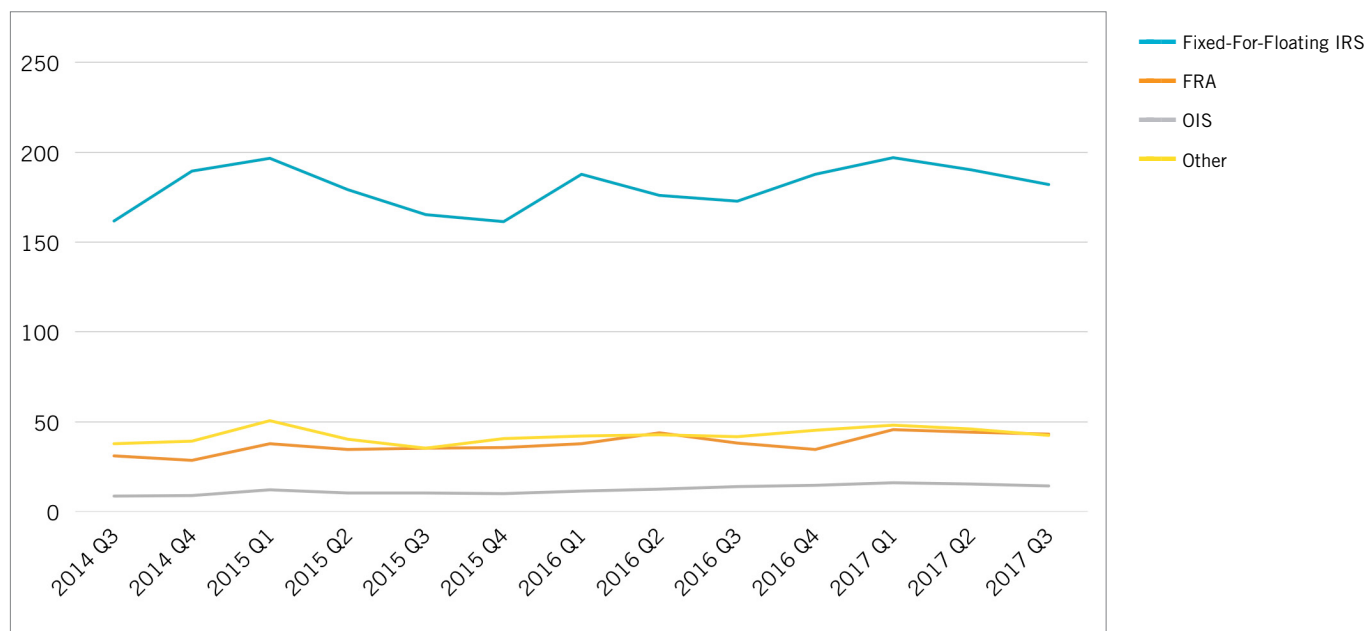
FRA traded notional increased by 2.5% from \$15.4 trillion in the third quarter of 2016 to \$15.8 trillion in the third quarter of 2017. Trade count increased by 13% over the same period. In the first nine months of 2017, FRA traded notional increased by 6.1% to \$50.1 trillion compared with \$47.3 trillion in the first nine months of 2016, and trade count increased by 10.7%. Traded notional for the 12 months ended September 30, 2017 increased by 7.1% to \$63.4 trillion from \$59.4 trillion the previous year. Trade count increased by 7.4% to 167,285 from 155,749 over the same period.

IRD Traded Notional By Product (US\$ trillions)



Source: DTCC and Bloomberg SDRs

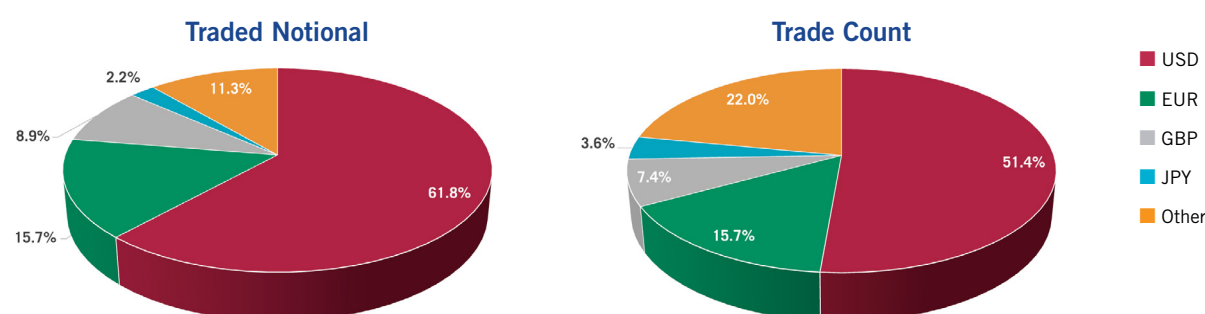
IRD Trade Count By Product (thousands)



Source: DTCC and Bloomberg SDRs

IRD Statistics: Currency

IRD contracts in US dollars remained the most actively traded instruments, with traded notional totaling \$28.7 trillion in the third quarter of 2017. US dollar-denominated IRD contributed 61.8% of traded notional and 51.4% of trade count. Euro-denominated transactions accounted for a far smaller percentage of traded notional (15.7%) and trade count (15.7%).

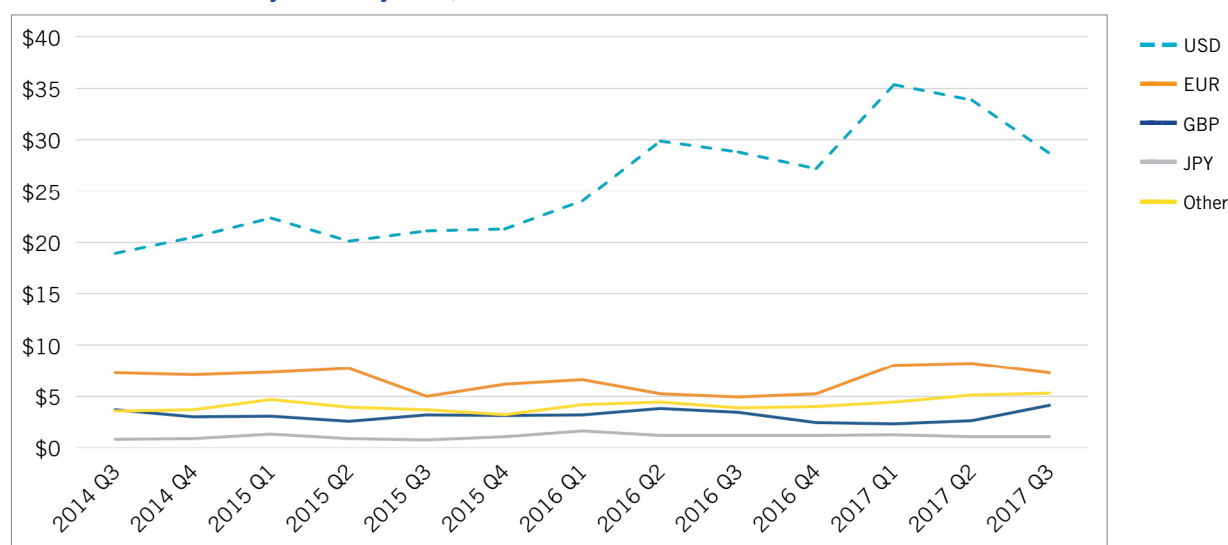


Euro- and sterling-denominated IRD traded notional increased by 48.7% and 20.1%, respectively, in the third quarter of 2017 compared with the third quarter of 2016. US dollar- and yen-denominated traded notional declined by 0.4% and 14.2%, respectively, over the same period. US dollar-denominated traded notional totaled \$28.7 trillion in the third quarter of 2017 compared with \$28.8 trillion in the third quarter of 2016. Euro-denominated traded notional reached \$7.3 trillion in the third quarter of 2017 compared with \$4.9 trillion in the third quarter of 2016. Traded notional for sterling- and yen-denominated trades totaled \$4.1 trillion and \$1 trillion, respectively, at the end of the third quarter of 2017. Trade count increased by 29.5% for euro-denominated trades and 17.6% for sterling trades, and declined by 0.4% and 21.9% for US dollar- and yen-denominated trades, respectively, in the third quarter of 2017 compared with the third quarter of 2016.

In the first nine months of 2017, US dollar- and euro-denominated IRD traded notional totaled \$97.9 and \$23.5 trillion, respectively, up by 18.2% and 40.7% from the first nine months of 2016. Traded notional for sterling- and yen-denominated trades declined by 12.8% and 17.1%, respectively, over the same period. Trade count increased by 5.1% for US dollar, 23.5% for euro and 8.3% for sterling, and declined by 26.1% for yen-denominated transactions.

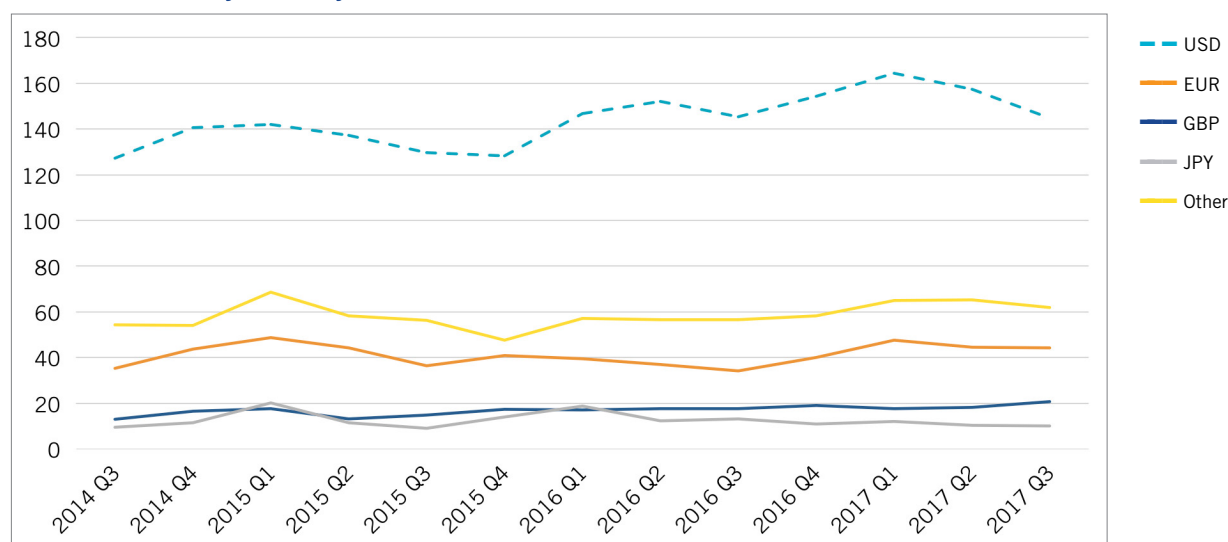
During the 12 months ended September 30, 2017, US dollar-denominated IRD traded notional increased by 20.2% to \$125.1 trillion from \$104.1 trillion in the 12 months ended September 30, 2016. Euro-denominated traded notional increased by 25.6% to \$28.7 trillion from \$22.9 trillion. Sterling- and yen-denominated notional declined by 14.6% and 10.1% to \$11.5 trillion and \$4.5 trillion, respectively. Trade count increased by 5.1% for US dollar-denominated transactions from 572,428 to 620,904 year-over-year. Trade count for euro- and sterling-denominated transactions increased by 16.7% and 8.6% to 176,302 and 75,679, respectively, while trade count for yen trades declined by 25% to 43,492 year-over-year.

IRD Traded Notional by Currency (US\$ trillions)



Source: DTCC and Bloomberg SDRs

IRD Trade Count by Currency (thousands)

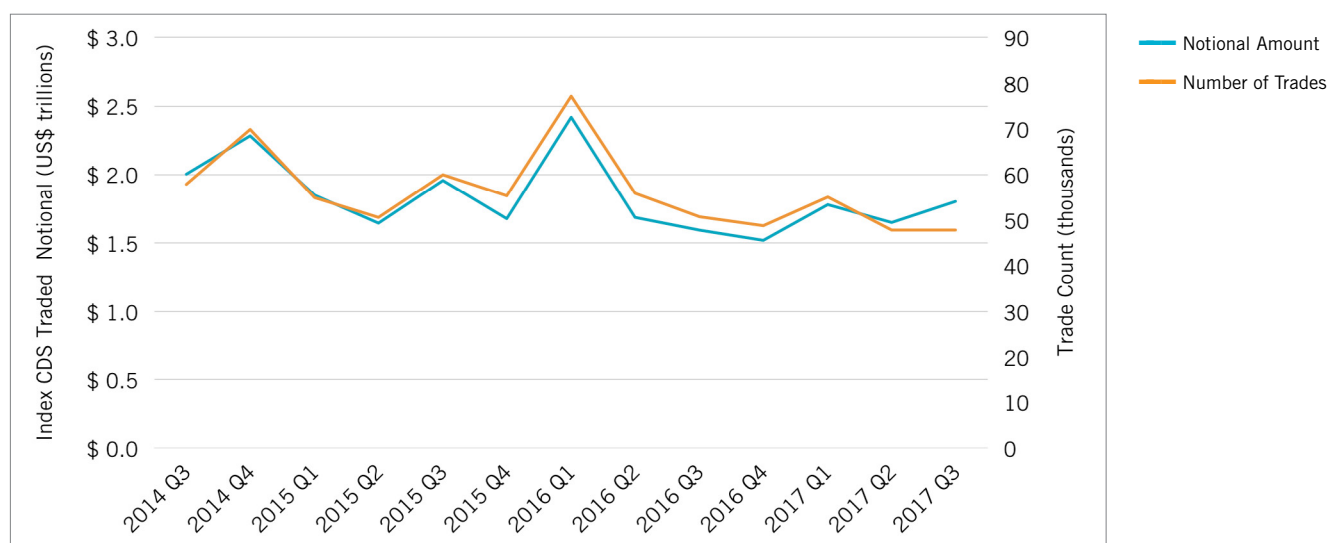


Source: DTCC and Bloomberg SDRs

INDEX CREDIT DEFAULT SWAPS

Index CDS traded notional amount reversed its decline trend, but trade count continued to fall during the third quarter of 2017. Traded notional amount increased by 13.4% to \$1.8 trillion in the third quarter of 2017 from \$1.6 trillion in the third quarter of 2016. The number of trades declined by 5.8% to 47,791 from 50,760 over the same period.

Index CDS Traded Notional and Trade Count



Source: DTCC and Bloomberg SDRs

In the first nine months of 2017, index CDS traded notional declined by 8.2% to \$5.2 trillion from \$5.7 trillion in the first nine months of 2016. Trade count decreased by 18.1% over the same period to 150,549.

In the 12 months ended September 30, 2017, index CDS traded notional fell to \$6.8 trillion, an 8.5% decline from \$7.4 trillion in the 12 months ended September 30, 2016. Index CDS trade count declined by 16.7% to 199,220 from 239,142 over the same period.

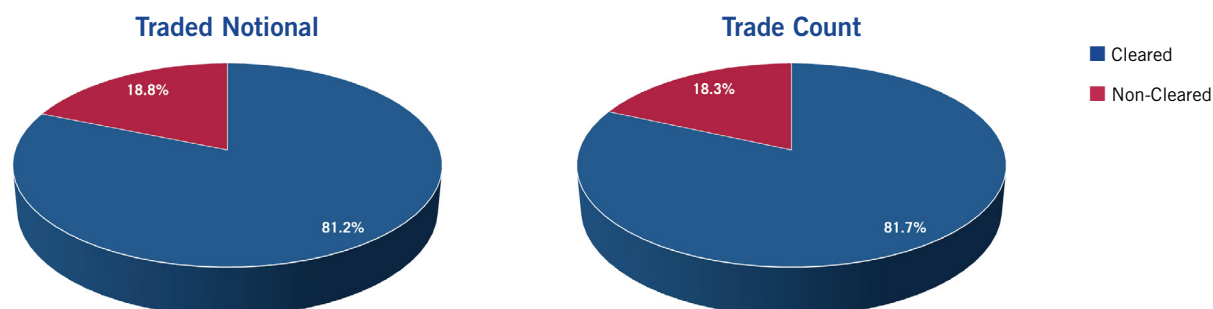
Index CDS Statistics: Average Daily Notional, Trade Count and Trade Size Quarterly Statistics

In the third quarter of 2017, average daily notional for index CDS totaled \$27.7 billion, average trade size was \$36.3 million and average daily trade count was 735.

	Average Daily Notional (US\$ billions)	Average Daily Trade Count	Average Trade Size (US\$ millions)
Q3 2017	27.7	735	36.3
Q3 2016	24.1	770	30.2
Q3 2017 vs. Q3 2016	15%	-5%	20%
YTD 2017	26.8	772	33.8
YTD 2016	29.1	942	30.0
YTD 2017 vs. YTD 2016	-8%	-18%	13%
LTM 2017	26.0	769	33.3
LTM 2016	28.3	920	29.8
LTM 2017 vs. LTM 2016	-8%	-16%	11%

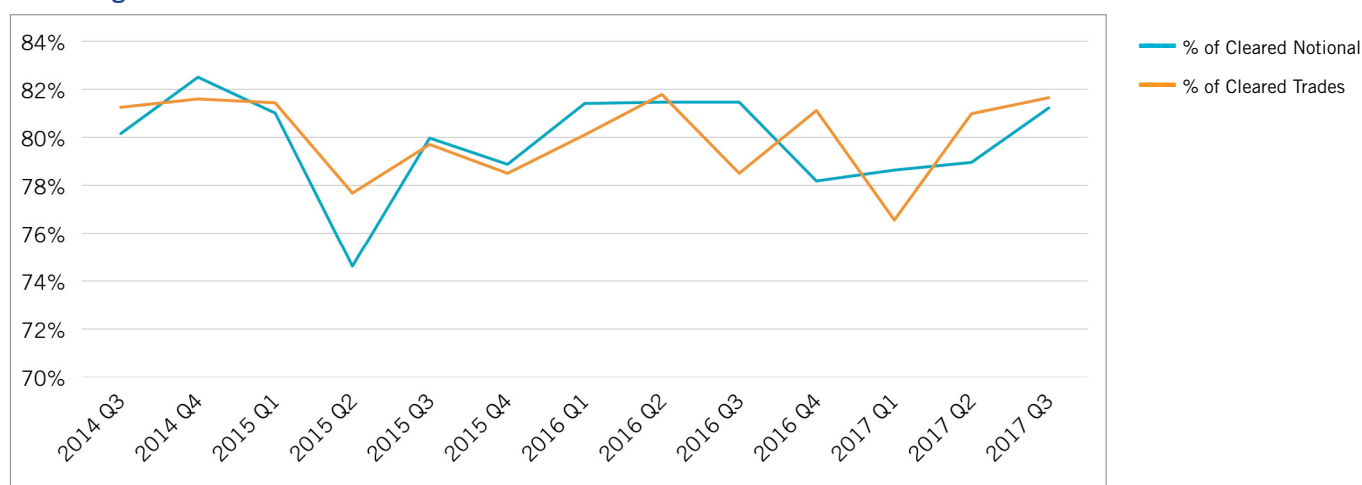
Index CDS Statistics: Central Clearing

During the third quarter of 2017, cleared CDS transactions represented 81.2% of traded notional amount and 81.7% of trade count. Traded notional amount of index CDS cleared transactions was \$1.5 trillion and total trade count was 39,033.



Over the past three years, the percentage of cleared index CDS notional and trade count has fluctuated between 74% and 83%.

Percentage of Index CDS Cleared Notional and Trade Count

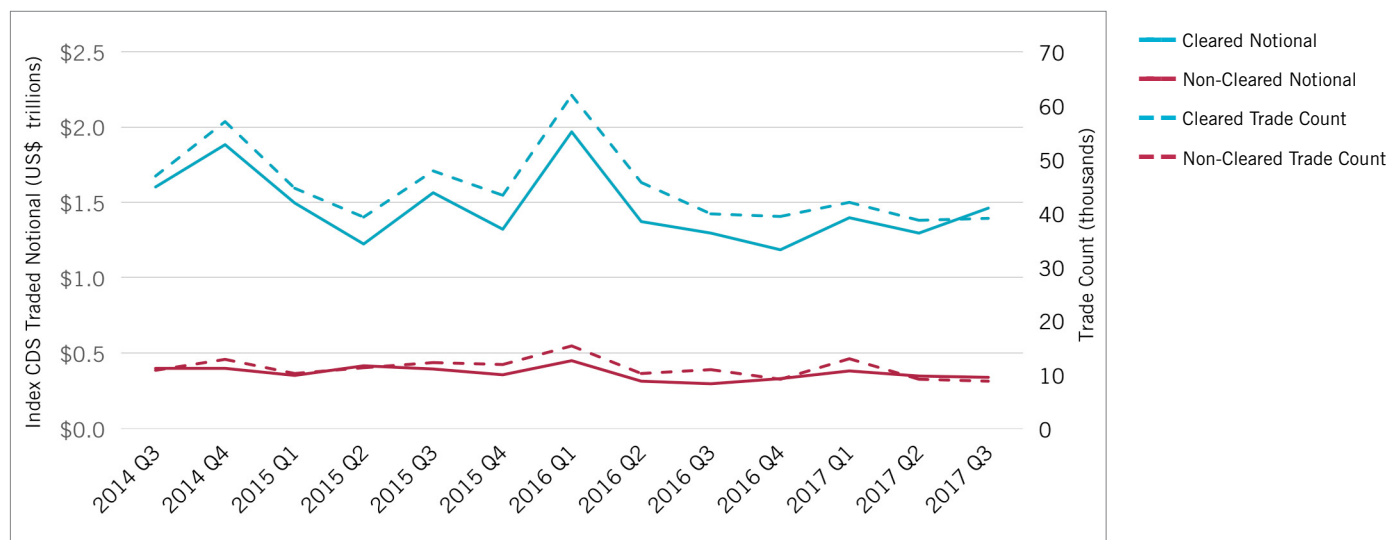


Source: DTCC and Bloomberg SDRs

Cleared index CDS notional increased by 13.1% to \$1.5 trillion in the third quarter of 2017 from \$1.3 trillion in the third quarter of 2016. Cleared trade count decreased by 2.1% over the same period to 39,033 from 39,851. Cleared notional fell by 10.2% in the first nine months of 2017 to \$4.2 trillion from \$4.6 trillion in the first nine months of 2016. Trade count declined by 18.7% over the same period. Cleared notional also decreased in the 12 months ended September 30, 2017 compared to the 12 months ended September 30, 2016, shrinking by 10.3% to \$5.4 trillion from \$6 trillion. Trade count declined by 16.5% to 159,305 from 190,837 over the same period.

Non-cleared index CDS notional increased by 15.1% in the third quarter of 2017 versus the third quarter of 2016, to \$338.4 billion from \$293.9 billion. However, trade count decreased by 19.7% over the same period, to 8,758 from 10,909. Non-cleared notional and trade count in the first nine months of 2017 were \$1.1 trillion and 30,728 compared with \$1.1 trillion and 36,427, respectively, in the first nine months of 2016. Non-cleared notional amount for the 12 months ended September 30, 2017 declined to \$1.4 trillion, a 1.1% decrease compared with \$1.4 trillion in the prior year. Trade count declined by 17.4% to 39,915 from 48,305 over the same period.

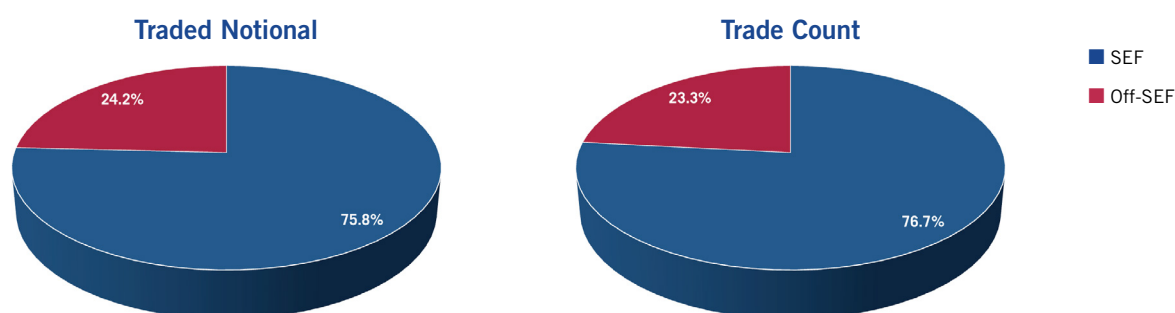
Index CDS Traded Notional and Trade Count



Source: DTCC and Bloomberg SDRs

Index CDS Statistics: Trading Venue

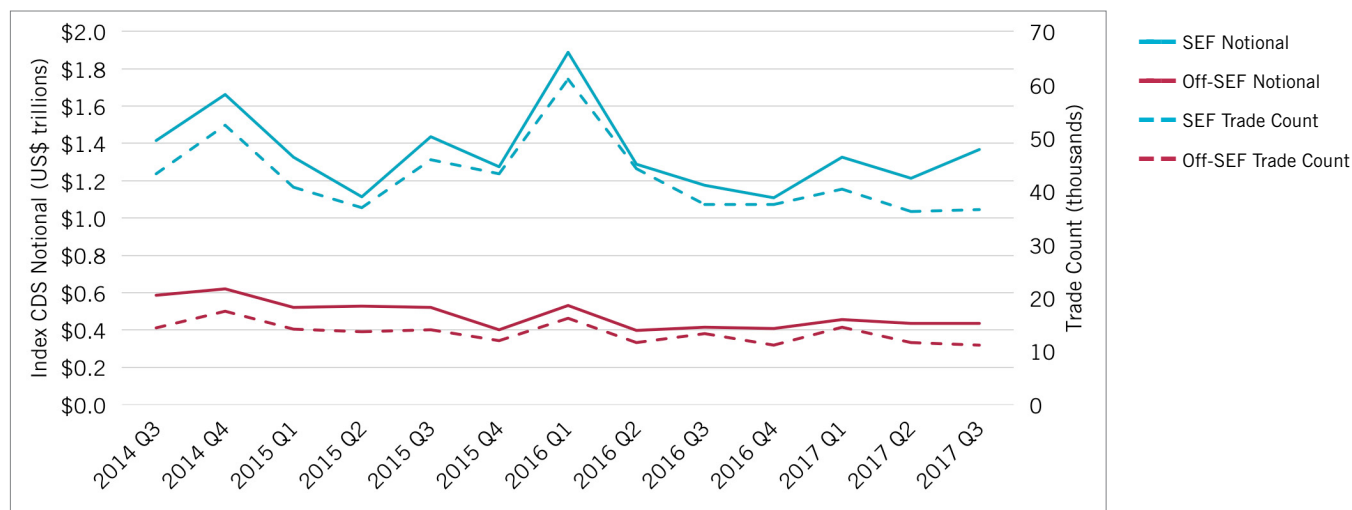
During the third quarter of 2017, both SEF and off-SEF traded notional increased, but trade count declined compared with the third quarter of 2016. SEF-traded index CDS represented 75.8% of traded notional and 76.7% of trade count. Total notional amount executed on SEFs was \$1.4 trillion, while \$0.4 trillion was executed off-SEF. 36,635 transactions were executed on SEFs and 11,156 transactions were off-SEF.



In the third quarter of 2017, index CDS notional executed on SEFs increased by 16.2% compared with the third quarter of 2016, to \$1.4 trillion from \$1.2 trillion. The number of trades executed on SEFs declined by 2.3% to 36,635 from 37,507 over the same period. In the first nine months of 2017, index CDS notional executed on SEFs totaled \$3.9 trillion, a 10.3% decline from \$4.4 trillion in the first nine months of 2016. For the 12 months ended September 30, 2017, notional executed on SEFs shrank by 11% to \$5 trillion from \$5.6 trillion in the 12 months ended September 30, 2016. Trade count decreased by 18.9% to 150,852 from 186,005 over the same period.

Notional amount transacted off-SEF increased by 5.3% to \$436.5 billion in the third quarter of 2017 from \$414.6 billion in the third quarter of 2016. However, the number of transactions decreased by 15.8% over the same period, to 11,156 from 13,253. In the first nine months of 2017, off-SEF notional declined by 1.3% to \$1.3 trillion, and trade count decreased by 9.4% to 37,250 compared to the first nine months of 2016. For the 12 months ended September 30, 2017, notional amount and transaction count executed off-SEF declined by 0.7% and 9%, respectively, compared with the prior year. Notional amount decreased to \$1.73 trillion from \$1.74 trillion, and the number of transactions declined to 48,368 from 53,137.

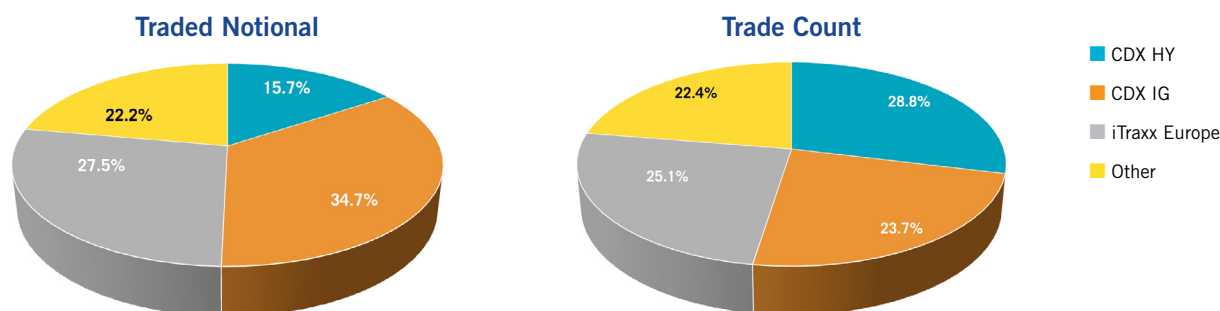
SEF and Off-SEF Index CDS Indices Traded Notional and Trade Count



Source: DTCC and Bloomberg SDRs

Index CDS: Product Taxonomy

In the third quarter of 2017, CDX HY and CDX IG represented 15.7% and 34.7% of traded notional and 28.8% and 23.7% of total trade count, respectively. iTraxx Europe accounted for 27.5% of index CDS traded notional and 25.1% of total trade count.

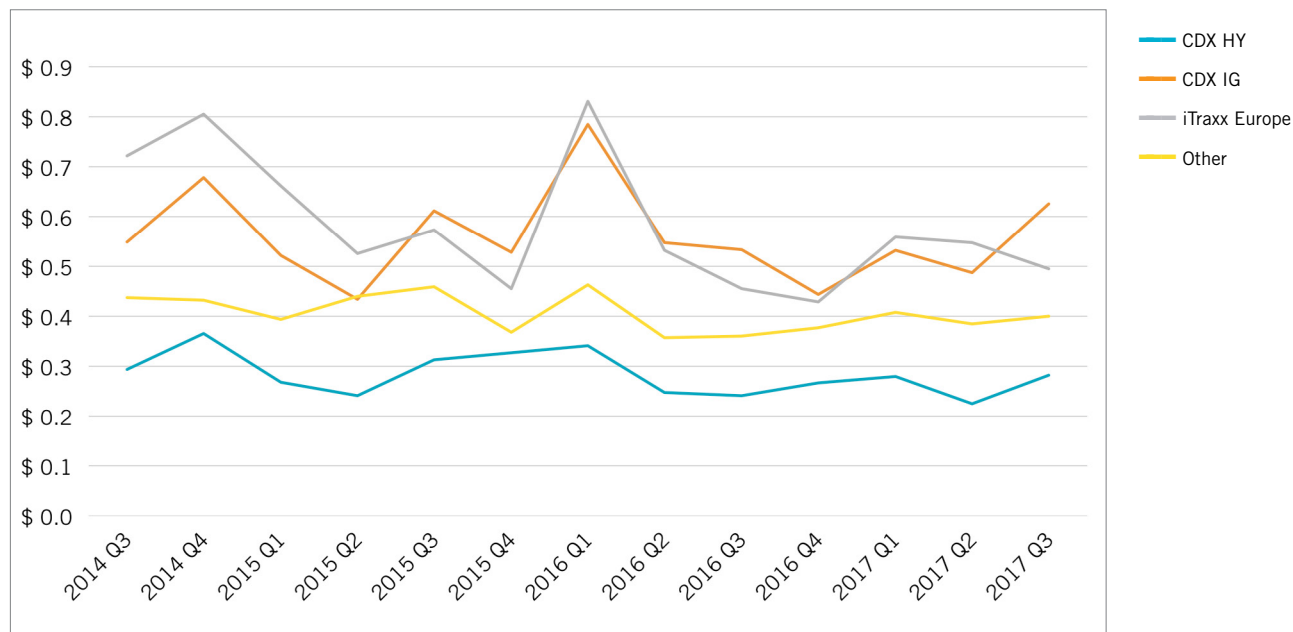


In the third quarter of 2017, CDX HY and CDS IG traded notional increased by 17.3% and 17.4%, respectively, compared with the third quarter of 2016. CDX HY increased to \$282.6 billion from \$240.9 billion, and CDX IG increased to \$626.1 billion from \$533.4 billion. Trade count also increased quarter-over-quarter by 7.6% for CDX HY and by 2.8% for CDX IG. In the first nine months of 2017, CDX HY traded notional decreased by 5.1% to \$787.7 billion from \$829.8 billion in the first nine months of 2016. CDX IG traded notional declined by 11.8% to \$1.6 trillion over the same period.

In the 12 months ended September 30, 2017, CDX HY traded notional decreased by 8.9% to \$1.1 trillion from \$1.2 trillion in the 12 months ended September 30, 2016. CDX IG traded notional declined by 12.7% over the same period, to \$2.1 trillion from \$2.4 trillion. Trade count for CDX HY and CDX IG fell by 12.9% and 15.5% year-over-year to 545,054 and 41,153, respectively.

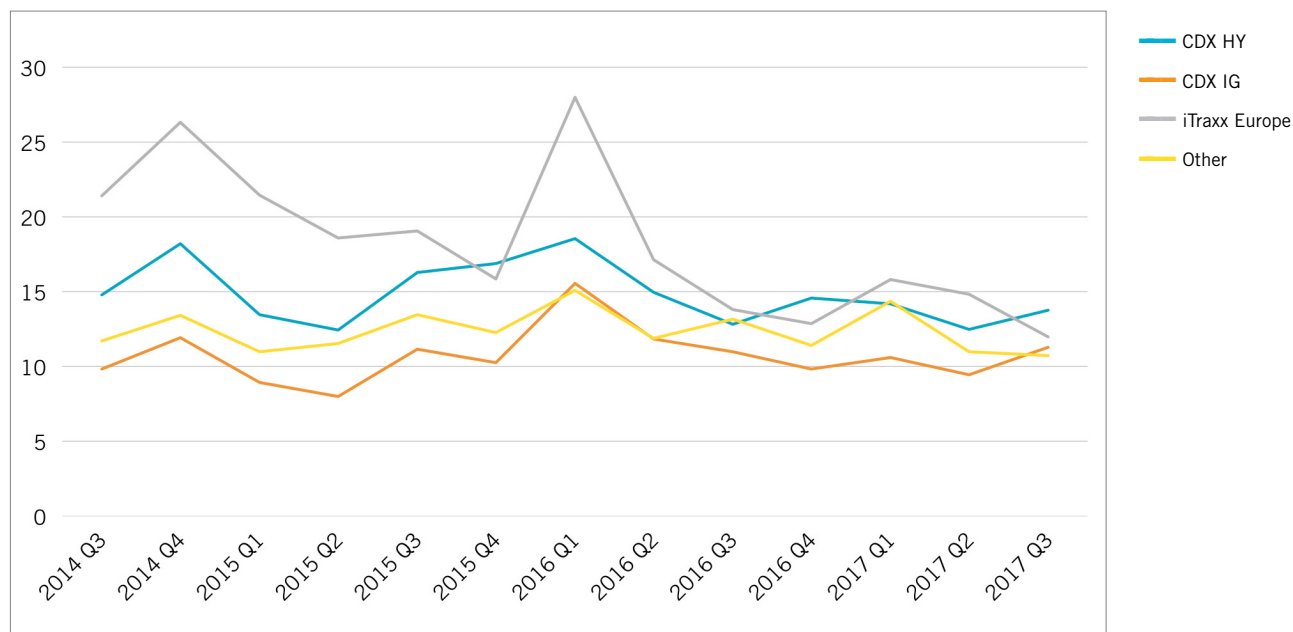
In the third quarter of 2017, iTraxx Europe traded notional increased by 8.7% compared with the third quarter of 2016, to \$495.2 billion from \$455.7 billion. Trade count declined by 13.1% to 11,984 from 13,796 over the same period. iTraxx traded notional declined by 11.9% to \$1.6 trillion in the first nine months of 2017 from \$1.8 trillion in the first nine months of 2016. In the 12 months ended September 30, 2017, iTraxx Europe traded notional declined by 10.7% to \$2 trillion compared with \$2.3 trillion in the 12 months ended September 30, 2016. Trade count decreased by 25.8% over the same period.

Index CDS Traded Notional (US\$ trillions)



Source: DTCC and Bloomberg SDRs

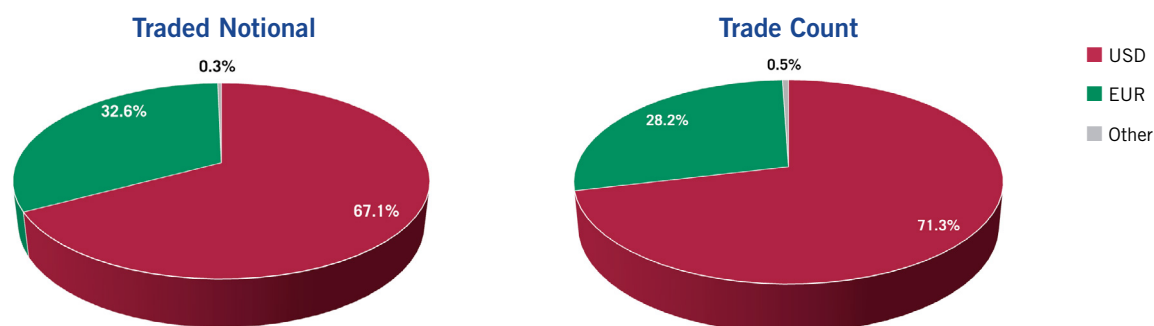
Index CDS Trade Count (thousands)



Source: DTCC and Bloomberg SDRs

Index CDS Statistics: Currency

In the third quarter of 2017, index CDS contracts denominated in US dollars remained the most actively traded instruments. US dollar-denominated index CDS represented 67.1% of traded notional and 71.3% of trade count. Euro-denominated transactions accounted for 32.6% and 28.2% of traded notional and trade count, respectively.

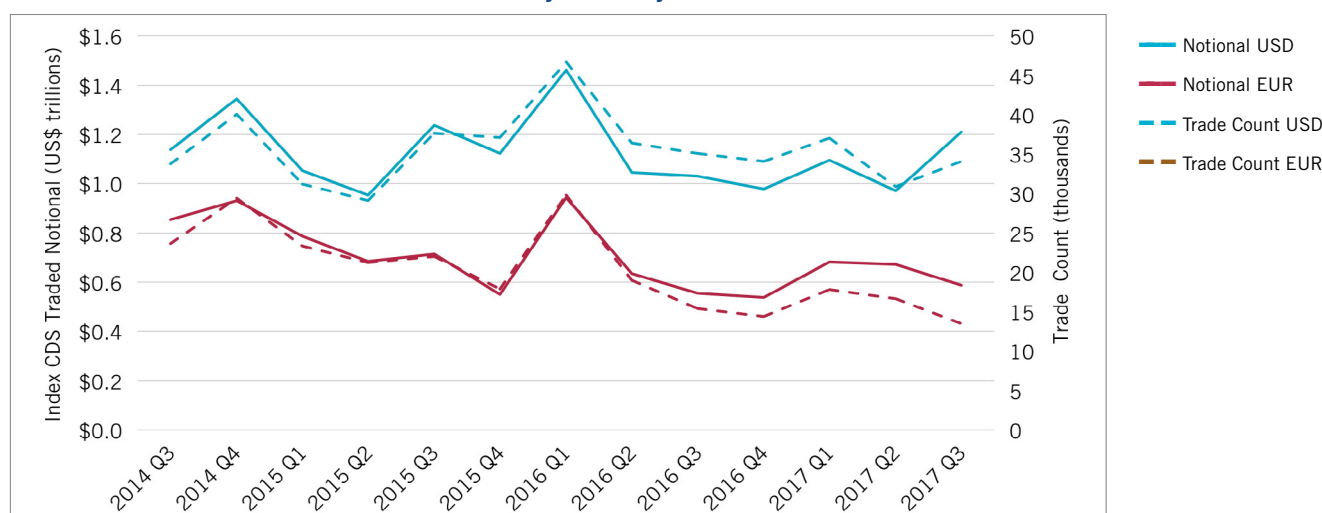


US dollar- and euro-denominated index CDS traded notional increased by 17.5% and 5.7%, respectively, in the third quarter of 2017 compared with the third quarter of 2016. US dollar-denominated index CDS traded notional totaled \$1.2 trillion in the third quarter of 2017 compared with \$1 trillion in the third quarter of 2016. Euro-denominated traded notional reached \$587.2 billion in the third quarter of 2017 versus \$555.2 billion in the third quarter of 2016. Trade count declined by 3% for US dollar trades and by 12.3% for euro-denominated trades to 34,054 and 13,486, respectively, over the same period.

In the first nine months of 2017, US dollar-denominated index CDS traded notional totaled \$3.3 trillion, a 7.4% decline compared with \$3.5 trillion in the first nine months of 2016. Euro-denominated index CDS traded notional declined by 9% over the same period, to \$1.9 trillion from \$2.1 trillion. Trade count declined by 13.8% for US dollar-denominated trades and by 25.3% for euro trades, to 101,977 and 47,975, respectively.

During the 12 months ended September 30, 2017, US dollar-denominated index CDS traded notional declined by 8.8% to \$4.3 trillion from \$4.7 trillion in the 12 months ended September 30, 2016. Euro-denominated index CDS traded notional also decreased by 7.7% to \$2.5 trillion from \$2.7 trillion over the same period. Trade count declined by 12.4% and 24% for US dollar- and euro-denominated transactions year-over-year, respectively. For other currencies, notional and trade count declined by 48.8% and 56.9% year-over-year, respectively.

Index CDS Traded Notional and Trade Count by Currency



Source: DTCC and Bloomberg SDRs



ISDA has published other recent research papers:

- ***ISDA Margin Survey 2017, September, 2017***

<http://www2.isda.org/attachment/OTYyMg==/Margin%20Survey%20FINAL1.pdf>

- ***SwapsInfo Second Quarter 2017 Review, August 2017***

<http://www2.isda.org/attachment/OTU5MA==/Swaps%20review%20Q2%202017%20FINAL.pdf>

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