

SwapsInfo First Quarter of 2019 Review

The ISDA SwapsInfo Quarterly Review provides analysis of interest rate derivatives (IRD) and credit derivatives trading activity. The report provides a breakdown of cleared and non-cleared activity, swap execution facility (SEF) and off-SEF traded notional, product taxonomy and currency.

IRD and credit derivatives 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 those trades required to be disclosed under US regulations.

KEY HIGHLIGHTS FOR FIRST QUARTER OF 2019

Interest Rate Derivatives

In the first quarter of 2019:

- IRD traded notional rose by 5.0% to \$69.9 trillion from \$66.6 trillion in the first quarter of 2018. Trade count grew by 3.3% over the same period to 377,229 from 365,305. Single currency fixed-for-floating interest rate swaps (IRS) traded notional increased to \$20.2 trillion from \$19.6 trillion. Forward rate agreements (FRAs) traded notional rose to \$27.1 trillion from \$24.0 trillion, and overnight index swaps (OIS) traded notional increased to \$14.3 trillion in the first quarter of 2019 from \$14.2 trillion in the first quarter of 2018.
- Single currency fixed-for-floating IRS accounted for 62.5% of total IRD trades but represented only 28.9% of total IRD traded notional. FRAs and OIS represented 38.7% and 20.5% of total traded notional and 17.6% and 5.6% of trade count, respectively.
- Cleared IRD transactions represented 88.9% of total traded notional and 83.9% of trade count. About 96% of fixed-for-floating IRS, 100% of FRA, 95% of OIS and 26% of other IRD traded notional was cleared.
- SEF-traded transactions represented 60.0% of total traded notional and 62.6% of trade count. About 59% of fixed-for-floating IRS, 84% of FRA, 30% of OIS and 38% of other IRD traded notional was executed on SEFs.
- IRD contracts denominated in US dollars contributed 65.1% of total traded notional and 52.3% of trade count. Euro-denominated transactions accounted for a far smaller percentage of total traded notional (13.4%) and trade count (15.0%).
- US dollar-denominated fixed-for-floating IRS and OIS declined by 5.8% and 29.9% to \$9.9 trillion and \$7.0 trillion compared with the first quarter of 2018, while US dollar-denominated FRAs increased by 13.4% over the same period. Euro-denominated IRS and OIS increased by 8.7% and 32.3%, respectively, while euro-denominated FRAs declined by \$10.3% to \$2.5 trillion.

Credit Derivatives

In the first quarter of 2019:

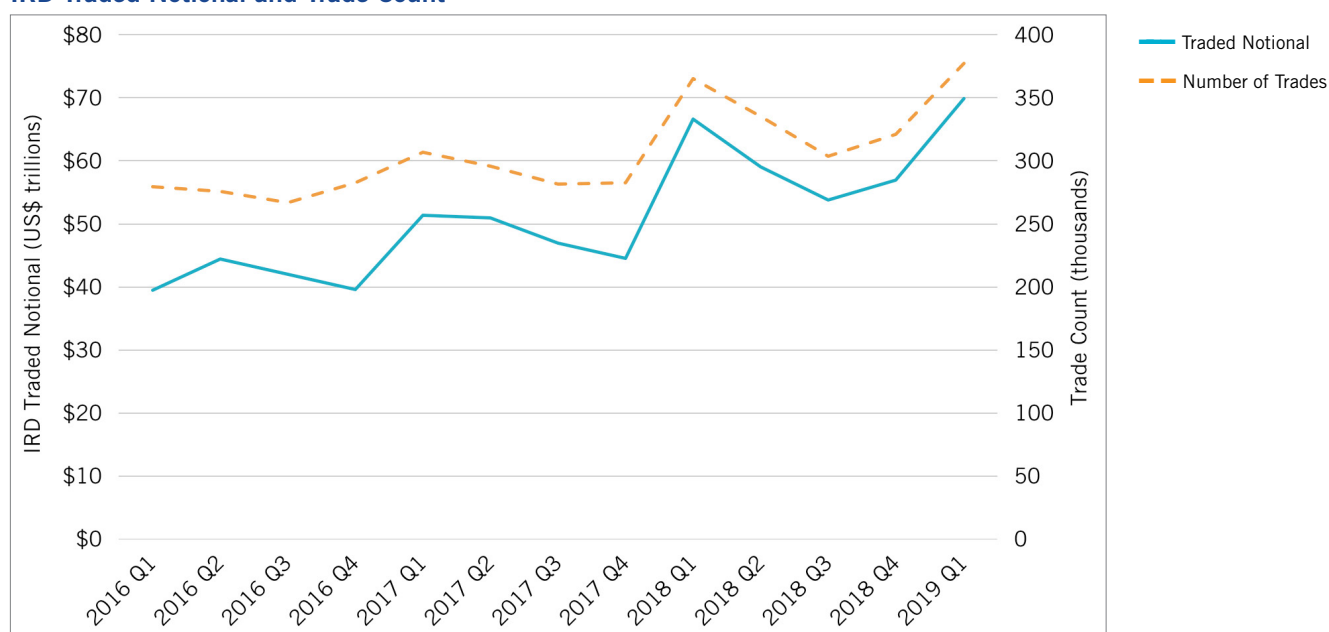
- Credit derivatives traded notional decreased by 13.7% to \$2.4 trillion from \$2.7 trillion in the first quarter of 2018¹. Trade count fell by 6.3% to 63,080 from 67,344 over the same period. CDX HY traded notional decreased by 18.4% and CDX IG traded notional decreased by 6.2% compared with the first quarter of 2018. CDX HY traded notional fell to \$360.7 billion from \$441.9 billion and CDX IG traded notional declined to \$891.4 billion from \$950.6 billion. iTraxx Europe traded notional decreased by 5.7% to \$470.5 billion in the first quarter of 2019 from \$499.1 billion in the first quarter of 2018.
- CDX HY and CDX IG represented 15.4% and 38.0% of total traded notional and 27.1% and 25.3% of trade count, respectively. iTraxx Europe accounted for 20.1% of total credit derivatives traded notional and 19.9% of trade count.
- Cleared transactions represented 81.0% of total traded notional and 80.8% of trade count. About 98% of CDX HY, 99% of CDX IG, 96% of iTraxx Europe and 34% of other credit derivatives traded notional was cleared.
- SEF-traded credit derivatives represented 77.5% of total traded notional and 78.2% of trade count. About 97% of CDX HY, 98% of CDX IG, 94% of iTraxx Europe and 25% of other credit derivatives traded notional was executed on SEFs.
- Credit derivatives contracts denominated in the US dollars represented 70.6% of total traded notional and 72.0% of trade count. Euro-denominated transactions accounted for 28.9% and 27.3% of total traded notional and trade count, respectively.

¹ Credit derivatives are mostly comprised of CDS indices, but also include CDS index tranches, credit swaptions, exotic products, total return swaps and insignificant amount of single name CDS

INTEREST RATE DERIVATIVES

During the first quarter of 2019, IRD traded notional rose by 5.0% to \$69.9 trillion from \$66.6 trillion in the first quarter of 2018. Trade count grew by 3.3% over the same period, to 377,227 from 365,305.

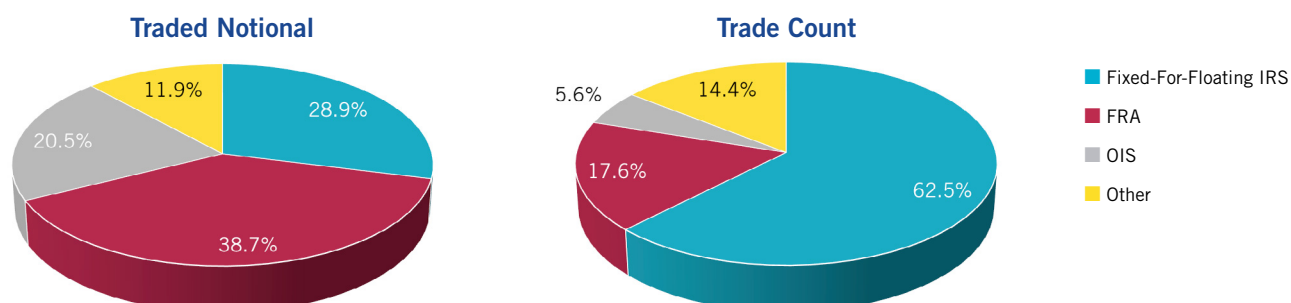
IRD Traded Notional and Trade Count



Source: DTCC and Bloomberg SDRs

IRD Statistics: Product Taxonomy

Single currency fixed-for-floating IRS accounted for 62.5% of total IRD trade count, but represented only 28.9% of IRD total traded notional in the first quarter of 2019. FRAs and OIS represented 38.7% and 20.5% of total traded notional and 17.6% and 5.6% of trade count, respectively.



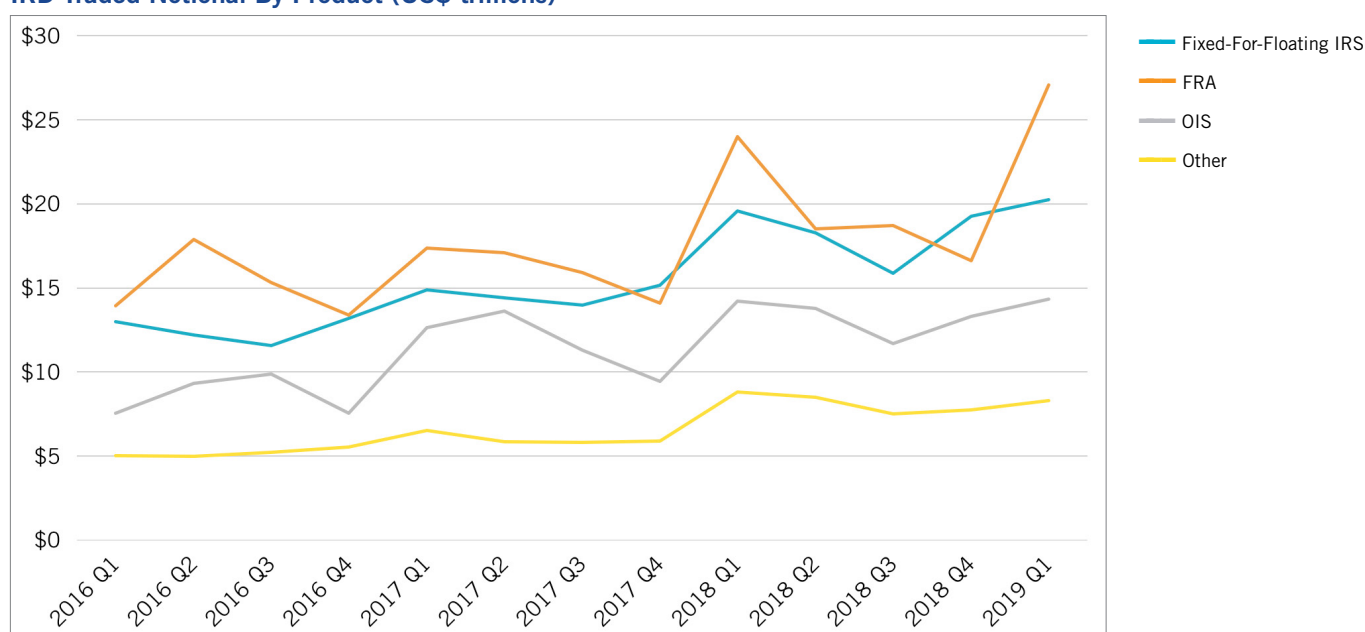
Source: DTCC and Bloomberg SDRs

Fixed-for-floating IRS traded notional increased by 3.3% from \$19.6 trillion in the first quarter of 2018 to \$20.2 trillion in the first quarter of 2019. IRS trade count increased by 1.2% from 232,891 to 235,604 over the same period.

FRA traded notional increased by 12.7% from \$24.0 trillion in the first quarter of 2018 to \$27.1 trillion in the first quarter of 2019. Trade count increased by 10.6% from 59,894 to 66,264 over the same period.

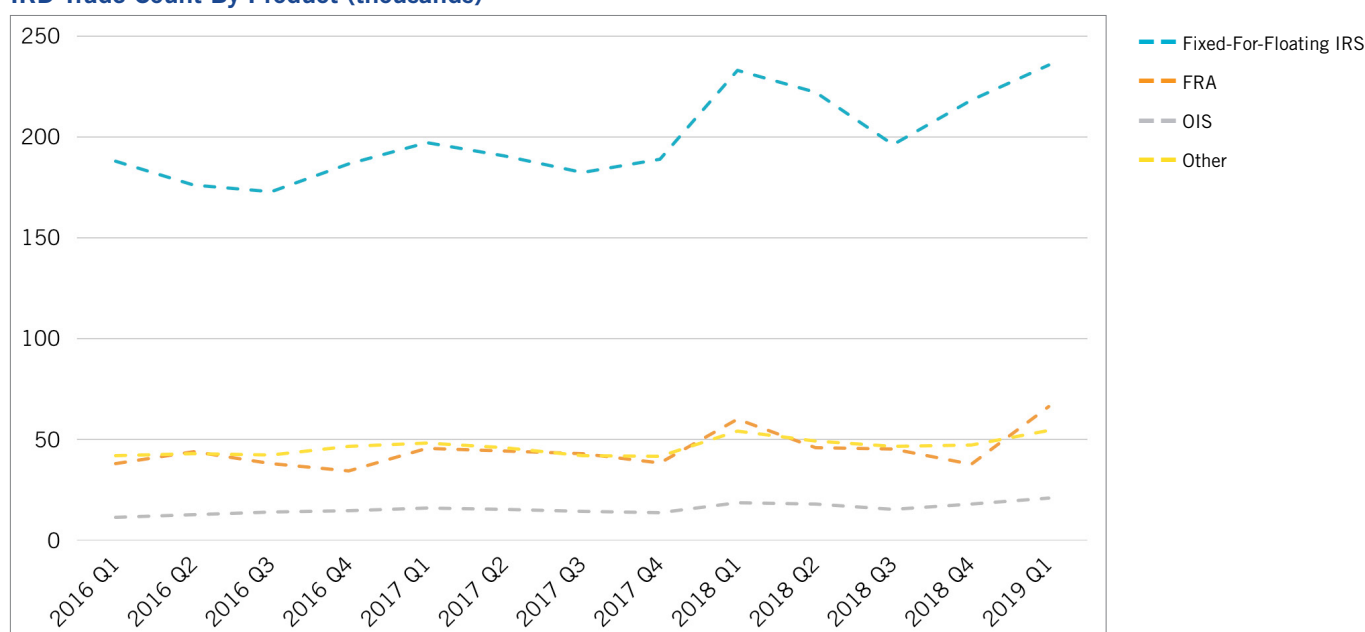
OIS traded notional increased by 1.1% from \$14.2 trillion in the first quarter of 2018 to \$14.3 trillion in the first quarter of 2019. OIS trade count increased by 13.3% during the first quarter of 2019 compared with the first quarter of 2018.

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

In the first quarter of 2019, fixed-for-floating IRS average daily traded notional increased by 6.6% compared with the first quarter of 2018 and totaled \$321.1 billion. Fixed-for-floating IRS average daily trade count and average trade size increased by 4.4% and 3.3%, respectively, over the same period.

FRA average daily traded notional totaled \$429.6 billion in the first quarter of 2019, 12.7% higher than the first quarter of 2018. FRA average daily trade count increased by 10.6%, while average trade size decreased by 5.3% in the first quarter of 2019 compared with the first quarter of 2018.

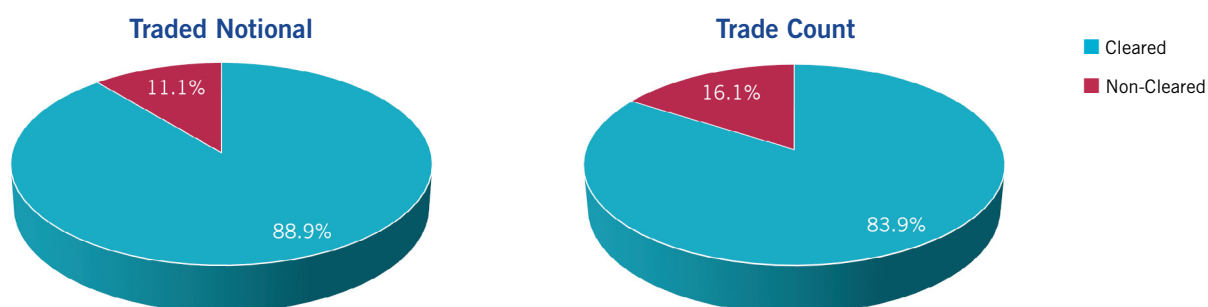
OIS average daily traded notional was \$224.1 billion in the first quarter of 2019, a 1.1% increase compared with the first quarter of 2018. OIS average daily trade count increased by 13.3%, while average trade size decreased by 10.3% in the first quarter of 2019 compared with the first quarter of 2018.

| | Average Daily Traded Notional (US\$ billions) | | | Average Daily Trade Count | | | Average Trade Size (US\$ millions) | | |
|----------------------------|---|-------|-------|---------------------------|-------|-------|------------------------------------|-------|--------|
| | IRS | FRA | OIS | IRS | FRA | OIS | IRS | FRA | OIS |
| Q1 2019 | 321.1 | 429.6 | 224.1 | 3,740 | 1,052 | 328 | 86.2 | 733.8 | 671.8 |
| Q1 2018 | 301.3 | 381.0 | 221.8 | 3,583 | 951 | 289 | 83.5 | 775.0 | 748.7 |
| Q1 2019 vs. Q1 2018 | 6.6% | 12.7% | 1.1% | 4.4% | 10.6% | 13.3% | 3.3% | -5.3% | -10.3% |

Source: DTCC and Bloomberg SDRs

IRD Statistics: Central Clearing

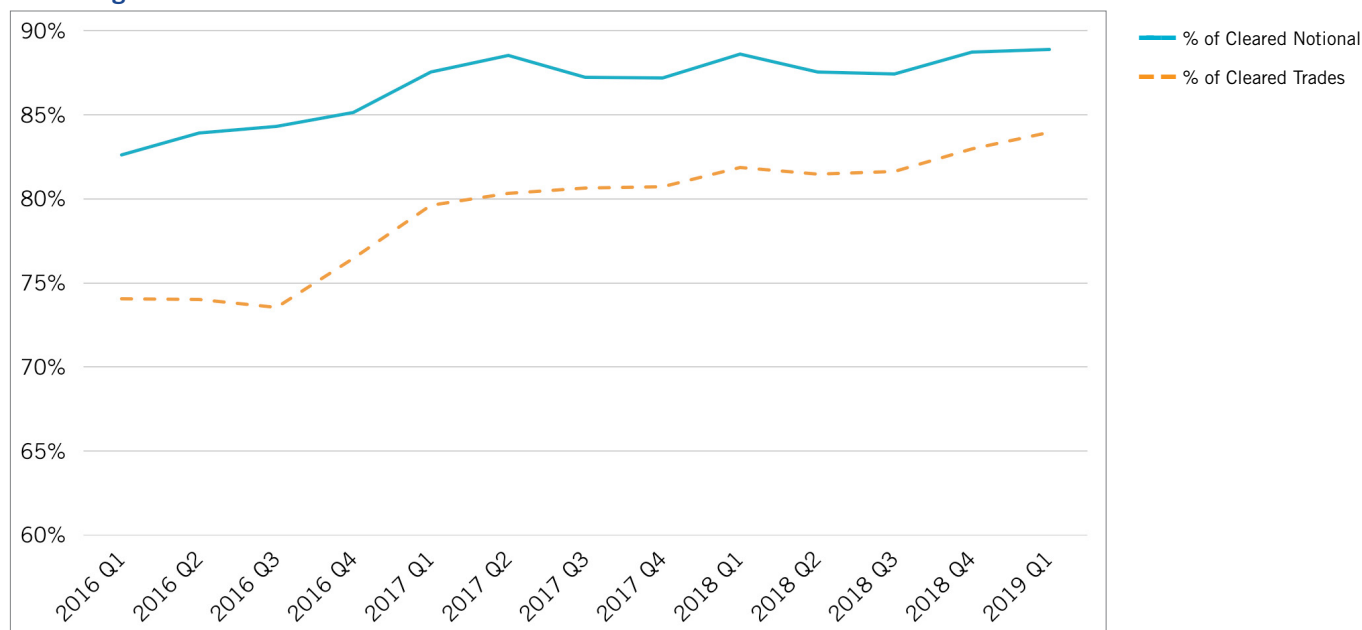
Cleared IRD transactions represented 88.9% of total IRD traded notional and 83.9% of trade count during the first quarter of 2019. IRD cleared notional totaled \$62.2 trillion and total trade count was 316,656.



Source: DTCC and Bloomberg SDRs

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

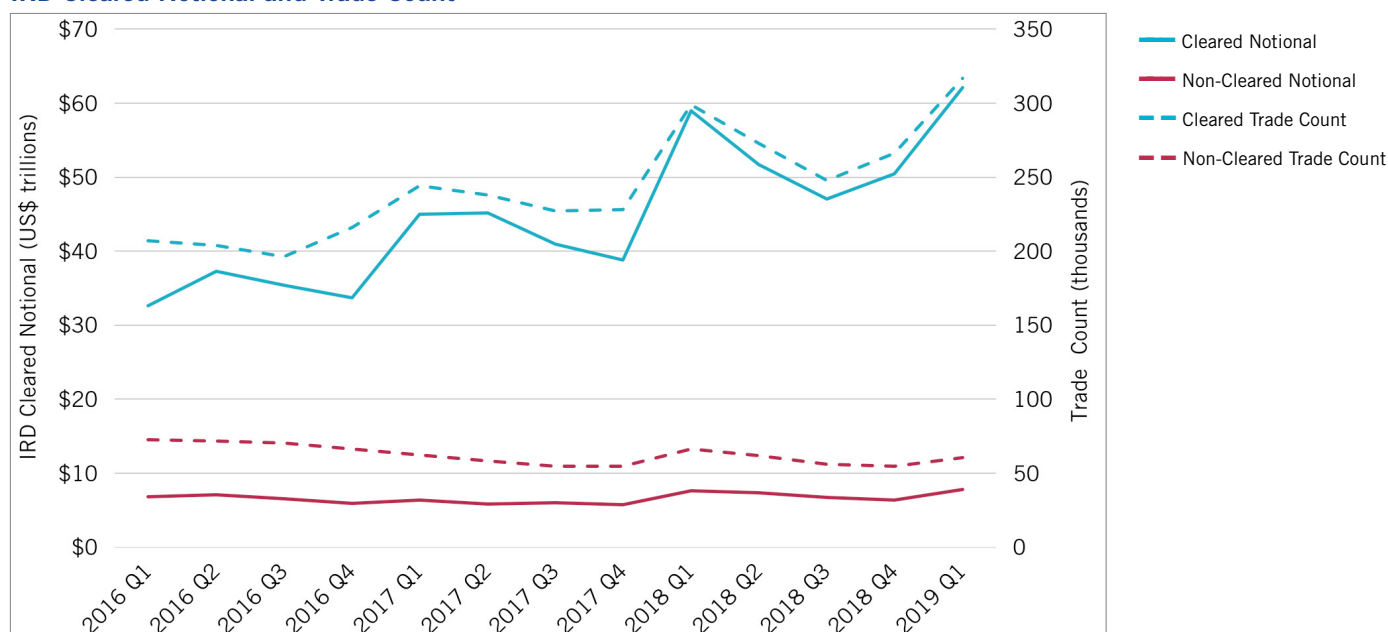
Percentage of IRD Cleared Notional and Trade Count



Source: DTCC and Bloomberg SDRs

IRD cleared notional increased by 5.3% from \$59.0 trillion in the first quarter of 2018 to \$62.2 trillion in the first quarter of 2019. Cleared trade count grew by 5.9% over the same period, from 298,997 to 316,656. IRD non-cleared notional grew by 2.6% in the first quarter of 2019 versus the first quarter of 2018, from \$7.6 trillion to \$7.8 trillion. Trade count decreased by 8.6% over the same period, from 66,308 to 60,573.

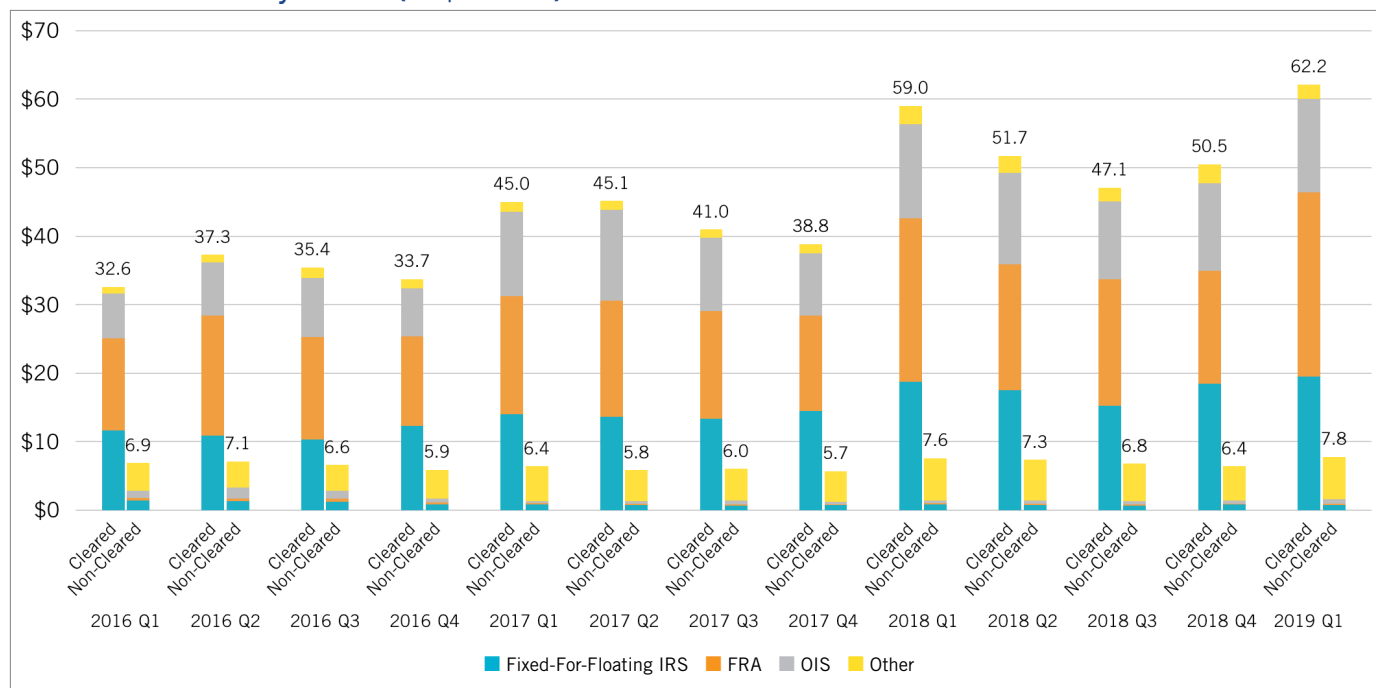
IRD Cleared Notional and Trade Count



Source: DTCC and Bloomberg SDRs

In the first quarter of 2019, \$19.5 trillion (96%) of fixed-for-floating IRS traded notional was cleared and \$773.6 billion was non-cleared. The notional amount of FRAs and OIS that was cleared reached \$27.0 trillion (100%) and \$13.6 trillion (95%), respectively. Over the same period, \$2.1 trillion (26%) of other IRD products notional was cleared and \$6.2 trillion was non-cleared.

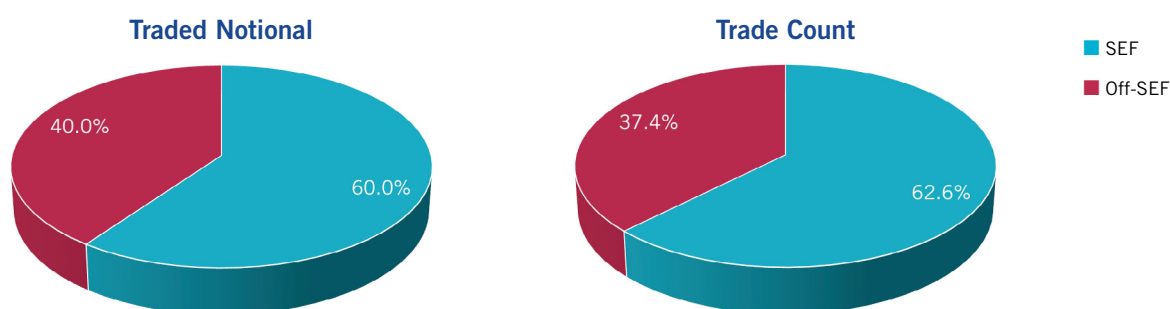
IRD Cleared Notional by Product (US\$ trillions)



Source: DTCC and Bloomberg SDRs

IRD Statistics: Trading Venue

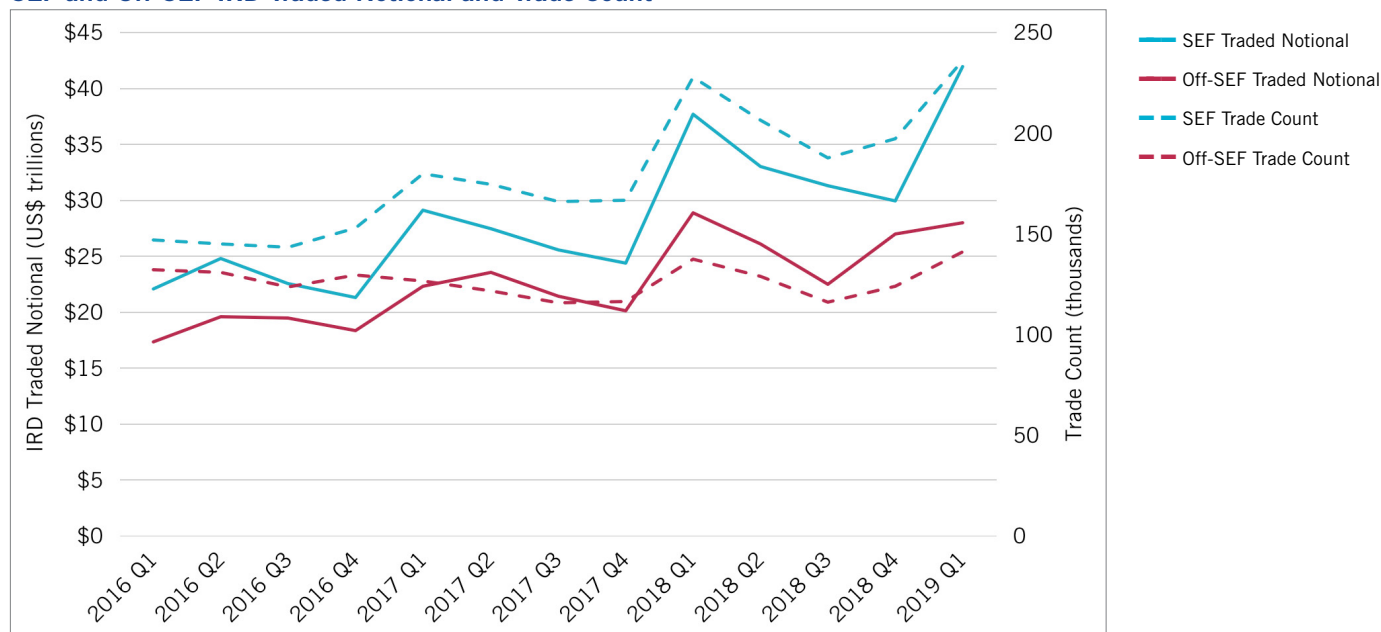
SEF-traded IRD represented 60.0% of total IRD traded notional and 62.6% of trade count in the first quarter of 2019. Total IRD traded notional executed on SEFs was \$42.0 trillion, while \$28.0 trillion was executed off-SEF. 236,020 transactions were executed on SEFs and 141,209 transactions occurred off-SEF.



Source: DTCC and Bloomberg SDRs

IRD traded notional executed on SEFs grew by 11.3% in the first quarter of 2019 versus the first quarter of 2018, from \$37.7 trillion to \$42.0 trillion. The number of trades executed on SEFs increased by 3.6% from 227,809 to 236,020 over the same period. IRD traded notional executed off-SEF decreased by 3.1% from \$28.9 trillion in the first quarter of 2018 to \$28.0 trillion in the first quarter of 2019. The number of transactions increased by 2.7% over the same period, from 137,496 to 141,209.

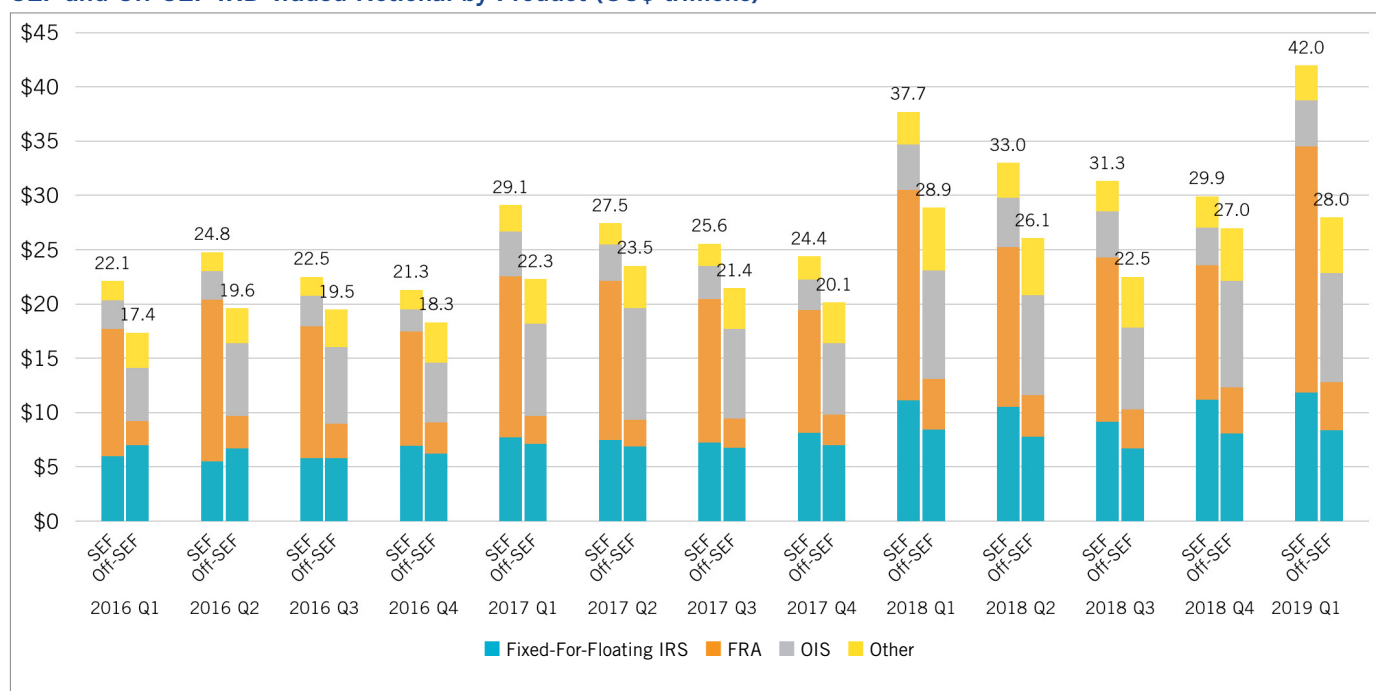
SEF and Off-SEF IRD Traded Notional and Trade Count



Source: DTCC and Bloomberg SDRs

In the first quarter of 2019, \$11.8 trillion (59%) of fixed-for-floating IRS was traded on SEFs and \$8.4 trillion was executed off-SEF. \$22.7 trillion (84%) of FRAs was executed on SEFs and \$4.4 trillion was traded off-SEF. \$4.3 trillion (30%) of OIS was executed on SEFs and \$10.1 trillion occurred off-SEF.

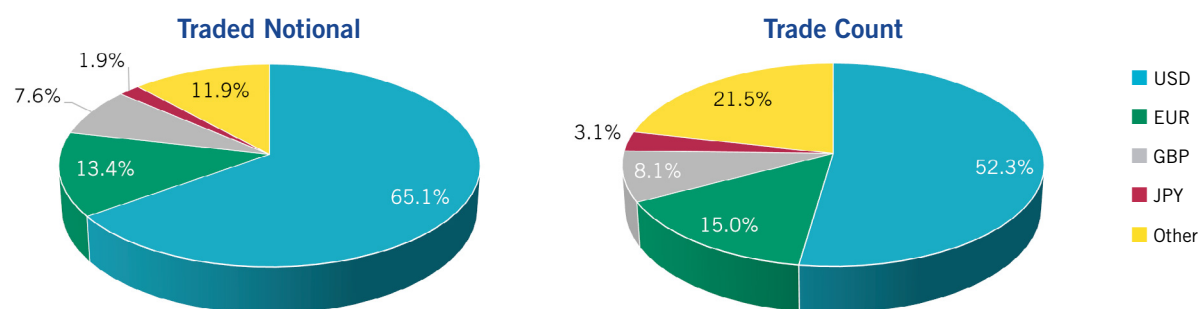
SEF and Off-SEF IRD Traded Notional by Product (US\$ trillions)



Source: DTCC and Bloomberg SDRs

IRD Statistics: Currency

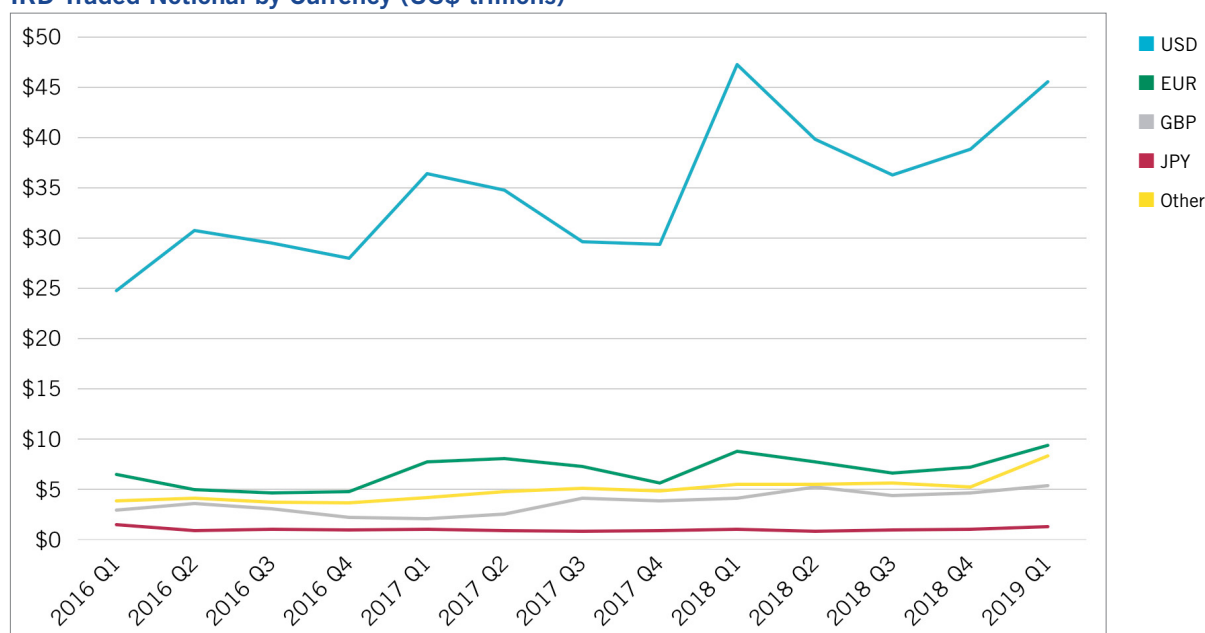
IRD contracts denominated in US dollars remained the most actively traded IRD instruments. US dollar-denominated IRD contributed 65.1% of total traded notional and 52.3% of trade count in the first quarter of 2019. Euro-denominated transactions accounted for a far smaller percentage of total traded notional (13.4%) and trade count (15.0%).



Source: DTCC and Bloomberg SDRs

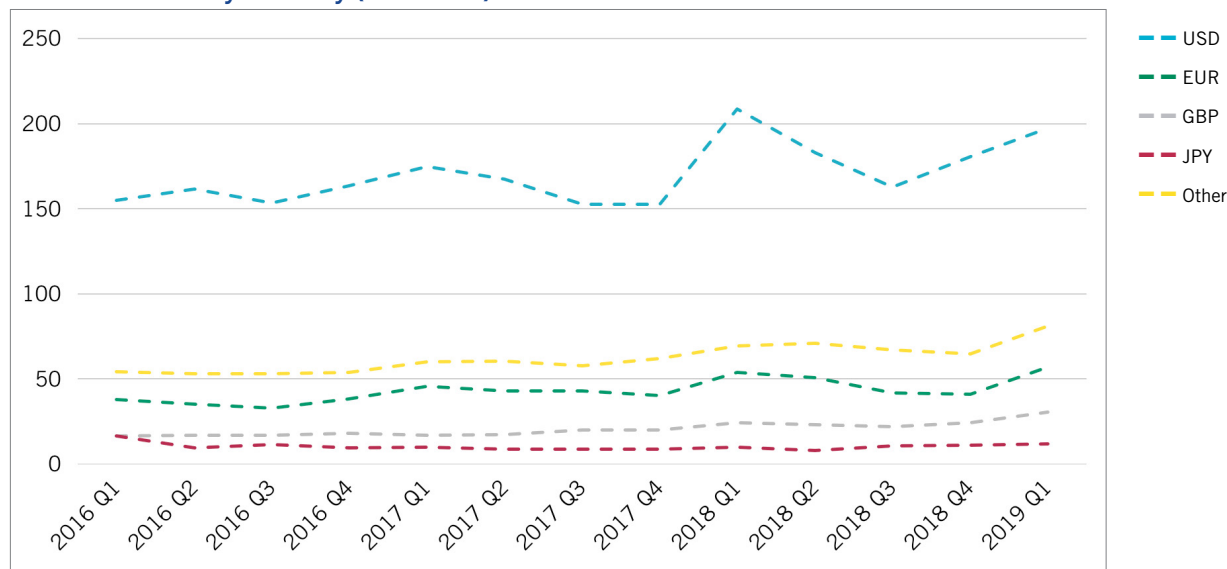
US dollar-denominated IRD traded notional decreased by 3.5%, while euro-, sterling- and yen-denominated IRD traded notional increased by 6.9%, 30.3% and 31.2%, respectively, in the first quarter of 2019 compared with the first quarter of 2018. US dollar-denominated traded notional totaled \$45.6 trillion in the first quarter of 2019 compared with \$47.2 trillion in the first quarter of 2018. Euro-denominated traded notional grew to \$9.4 trillion in the first quarter of 2019 compared with \$8.8 trillion in the first quarter of 2018. Traded notional for sterling- and yen-denominated trades totaled \$5.3 trillion and \$1.3 trillion, respectively, in the first quarter of 2019. Trade count decreased by 5.4% for US dollar-denominated trades and increased by 6.0%, 27.1% and 19.7% for euro-, sterling- and yen-denominated trades, respectively.

IRD Traded Notional by Currency (US\$ trillions)



Source: DTCC and Bloomberg SDRs

IRD Trade Count by Currency (thousands)



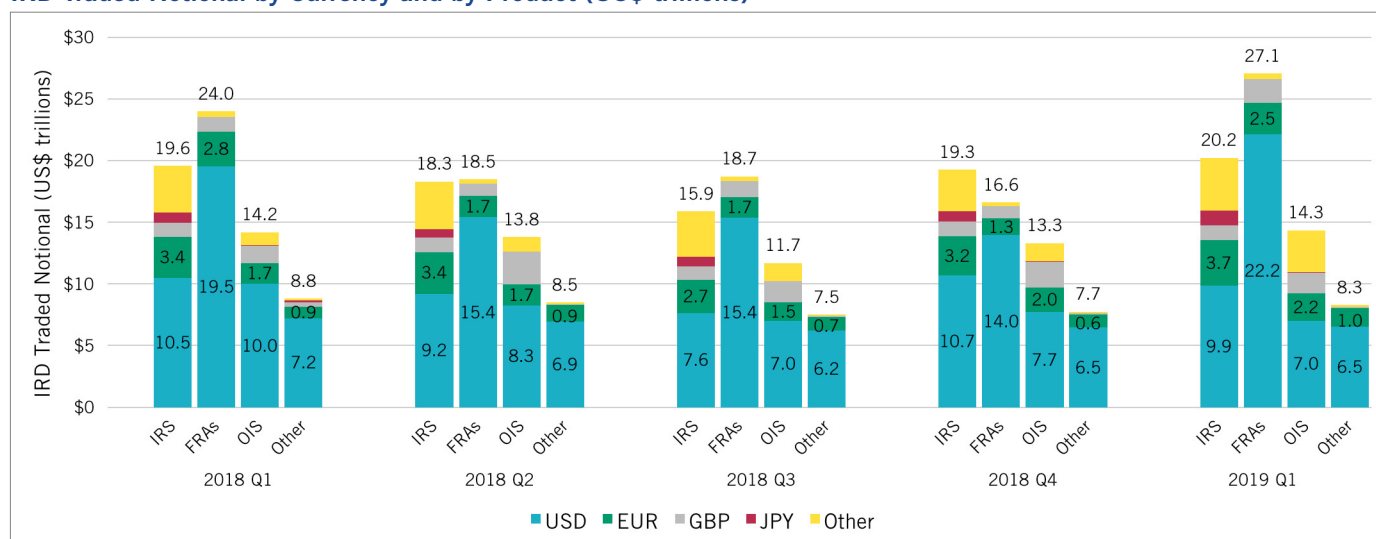
Source: DTCC and Bloomberg SDR

US dollar-denominated fixed-for-floating IRS declined by 5.8% to \$9.9 trillion in the first quarter of 2019 from \$10.5 trillion in the first quarter of 2018. Euro-denominated fixed-for-floating IRS increased by 8.7% to \$3.7 trillion from \$3.4 trillion over the same period. Sterling- and yen-denominated IRS each totaled \$1.2 trillion in the first quarter of 2019 compared with \$1.1 trillion and \$0.8 trillion, respectively, in the first quarter of 2018.

US dollar-denominated FRAs increased by 13.4% to \$22.2 trillion in the first quarter of 2019 from \$19.5 trillion in the first quarter of 2018, while FRAs denominated in euros declined by 10.3% to \$2.5 trillion over the same period. Sterling-denominated FRAs increased by 66.4% to \$1.9 trillion in the first quarter of 2019 from \$1.2 trillion in the first quarter of 2018.

US dollar-denominated OIS declined by 29.9% to \$7.0 trillion in the first quarter of 2019 from \$10 trillion in the first quarter of 2018. Euro-denominated OIS increased by 32.3% to \$2.2 trillion from \$1.7 trillion over the same period. Sterling-denominated OIS increased by 17.4% to \$1.7 trillion in the first quarter of 2019 from \$1.4 trillion in the first quarter of 2018.

IRD Traded Notional by Currency and by Product (US\$ trillions)

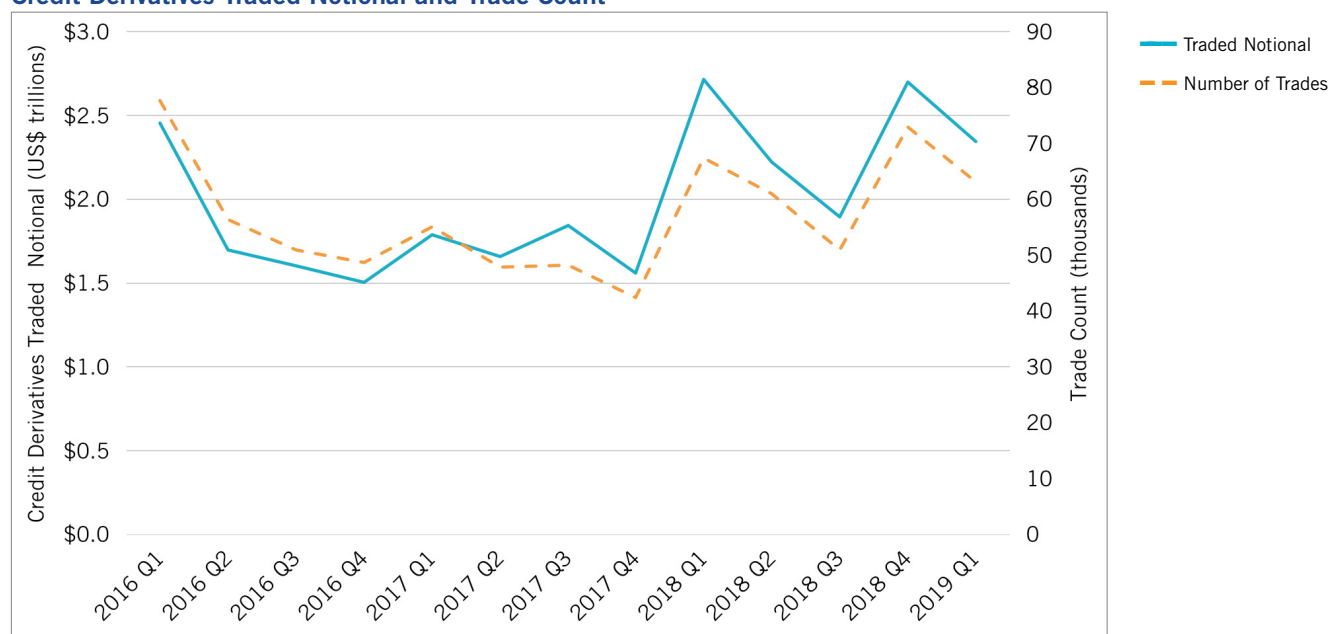


Source: DTCC and Bloomberg SDRs

CREDIT DERIVATIVES

Credit derivatives traded notional decreased by 13.7% to \$2.4 trillion in the first quarter of 2019 from \$2.7 trillion in the first quarter of 2018. The number of trades fell by 6.3% to 63,080 from 67,344 over the same period.

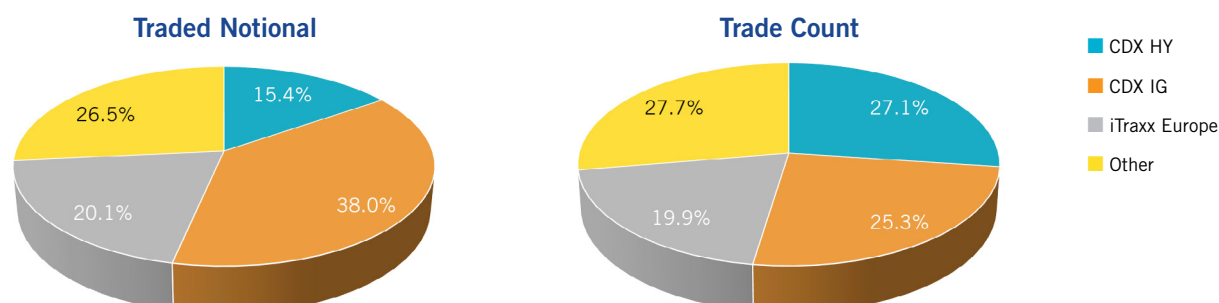
Credit Derivatives Traded Notional and Trade Count



Source: DTCC and Bloomberg SDRs

Credit Derivatives: Product Taxonomy

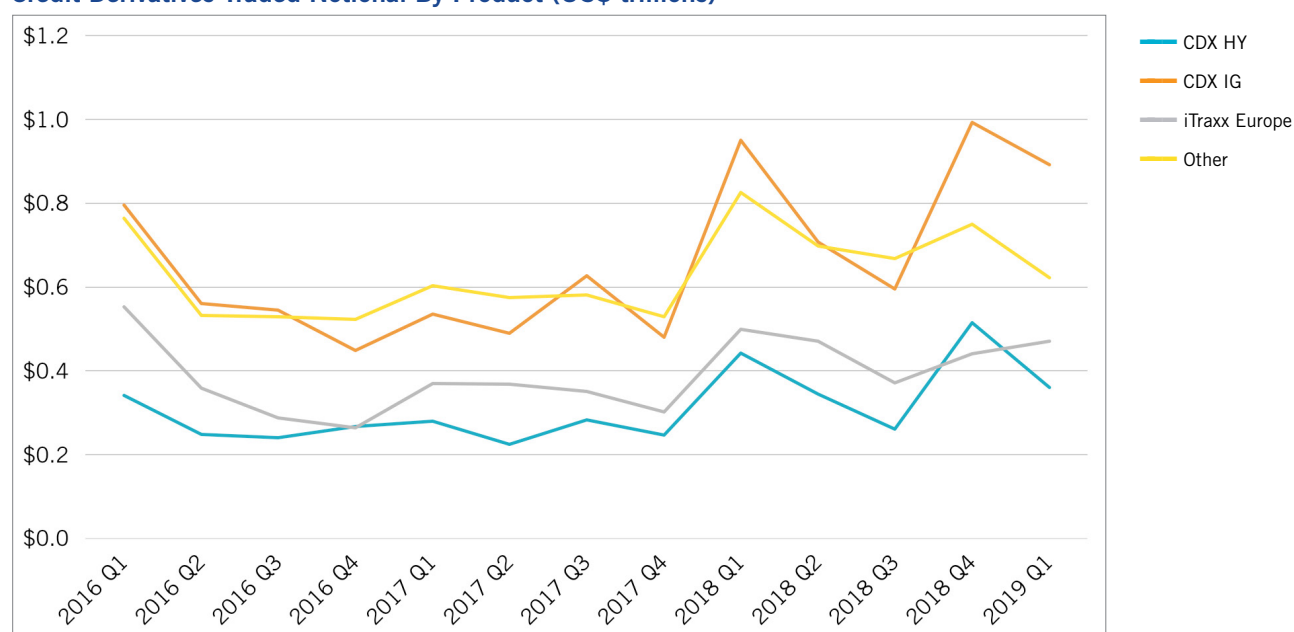
CDX HY and CDX IG represented 15.4% and 38.0% of total traded notional and 27.1% and 25.3% of trade count, respectively, in the first quarter of 2019. iTraxx Europe accounted for 20.1% of traded notional and 19.9% of trade count.



Source: DTCC and Bloomberg SDRs

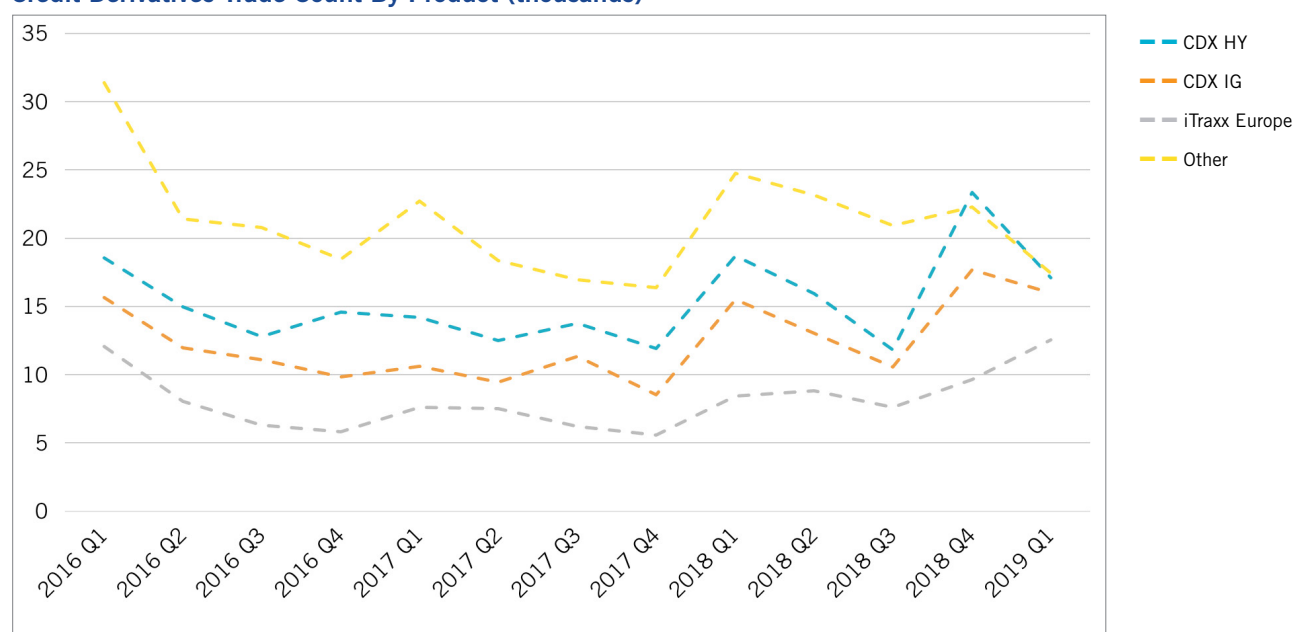
In the first quarter of 2019, CDX HY traded notional decreased by 18.4% and CDX IG traded notional decreased by 6.2% compared with the first quarter of 2018. CDX HY fell to \$360.7 billion from \$441.9 billion and CDX IG fell to \$891.4 billion from \$950.6 billion. Trade count decreased quarter-over-quarter by 8.4% for CDX HY and increased by 3.1% for CDX IG. iTraxx Europe traded notional decreased by 5.7% to \$470.5 billion in the first quarter of 2019 from \$499.1 billion in the first quarter of 2018. Trade count rose by 48.7% over the same period.

Credit Derivatives Traded Notional By Product (US\$ trillions)



Source: DTCC and Bloomberg SDRs

Credit Derivatives Trade Count By Product (thousands)



Source: DTCC and Bloomberg SDRs

Credit Derivatives Statistics: Average Daily Traded Notional, Trade Count and Trade Size Quarterly Statistics

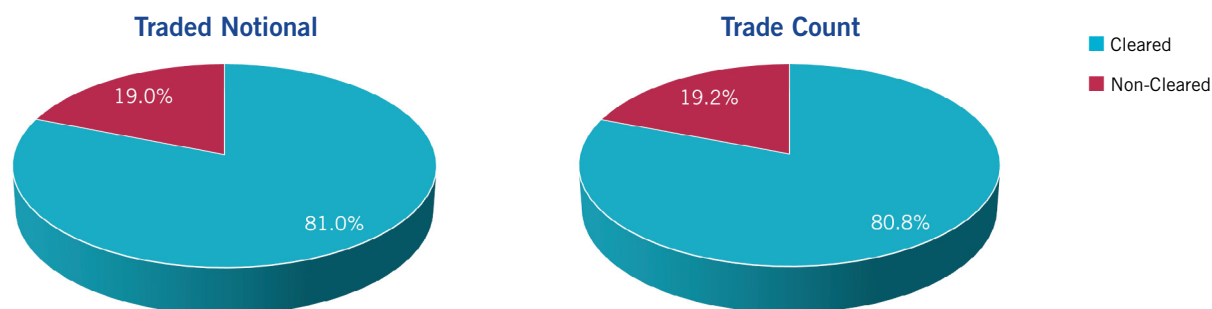
Average daily traded notional of CDX HY and CDX IG decreased by 18.4% and 6.2% in the first quarter of 2019 versus the first quarter of 2018, and totaled \$5.9 billion and \$14.6 billion, respectively. Average daily trade count of CDX HY fell by 8.4% and totaled 281, while average daily trade count of CDX IG grew by 3.1% and totaled 262 over the same period. Average trade size of CDX HY and CDX IG was \$19.7 million and \$54.6 million, respectively. iTraxx Europe average daily traded notional decreased by 5.7% to \$7.5 billion, while average daily trade count grew by 48.7% to 199. iTraxx Europe average trade size declined by 37.9% to \$36.3 million in the first quarter of 2019 compared with the first quarter of 2018.

| | Average Daily Traded Notional (US\$ billions) | | | Average Daily Trade Count | | | Average Trade Size (US\$ millions) | | |
|----------------------------|---|--------|---------------|---------------------------|--------|---------------|------------------------------------|--------|---------------|
| | CDX HY | CDX IG | iTraxx Europe | CDX HY | CDX IG | iTraxx Europe | CDX HY | CDX IG | iTraxx Europe |
| Q1 2019 | 5.9 | 14.6 | 7.5 | 281 | 262 | 199 | 19.7 | 54.6 | 36.3 |
| Q1 2018 | 7.2 | 15.6 | 7.9 | 306 | 254 | 134 | 22.1 | 59.3 | 58.4 |
| Q1 2019 vs. Q1 2018 | -18.4% | -6.2% | -5.7% | -8.4% | 3.1% | 48.7% | -11.0% | -7.9% | -37.9% |

Source: DTCC and Bloomberg SDRs

Credit Derivatives Statistics: Central Clearing

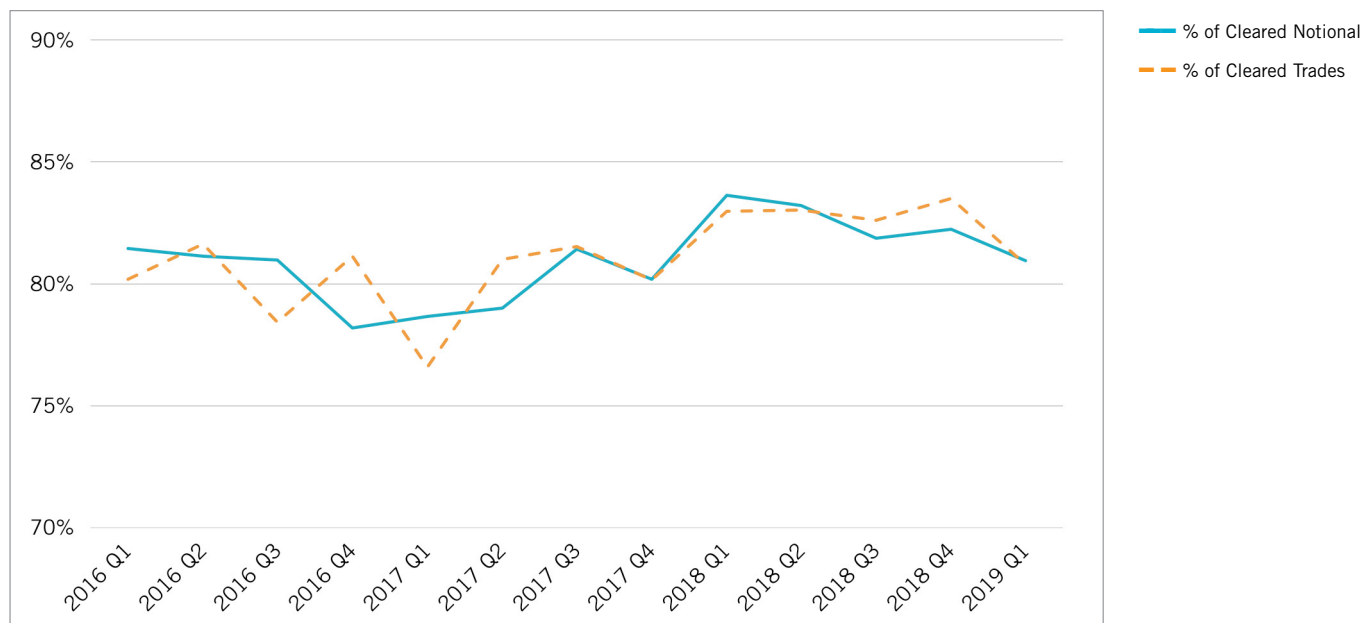
During the first quarter of 2019, credit derivatives cleared transactions represented 81.0% of traded notional and 80.8% of trade count. Traded notional and trade count of cleared transactions was \$1.9 trillion and 50,956, respectively.



Source: DTCC and Bloomberg SDRs

Over the past three years, the percentage of cleared credit derivatives notional and trade count has fluctuated between 76% and 84%.

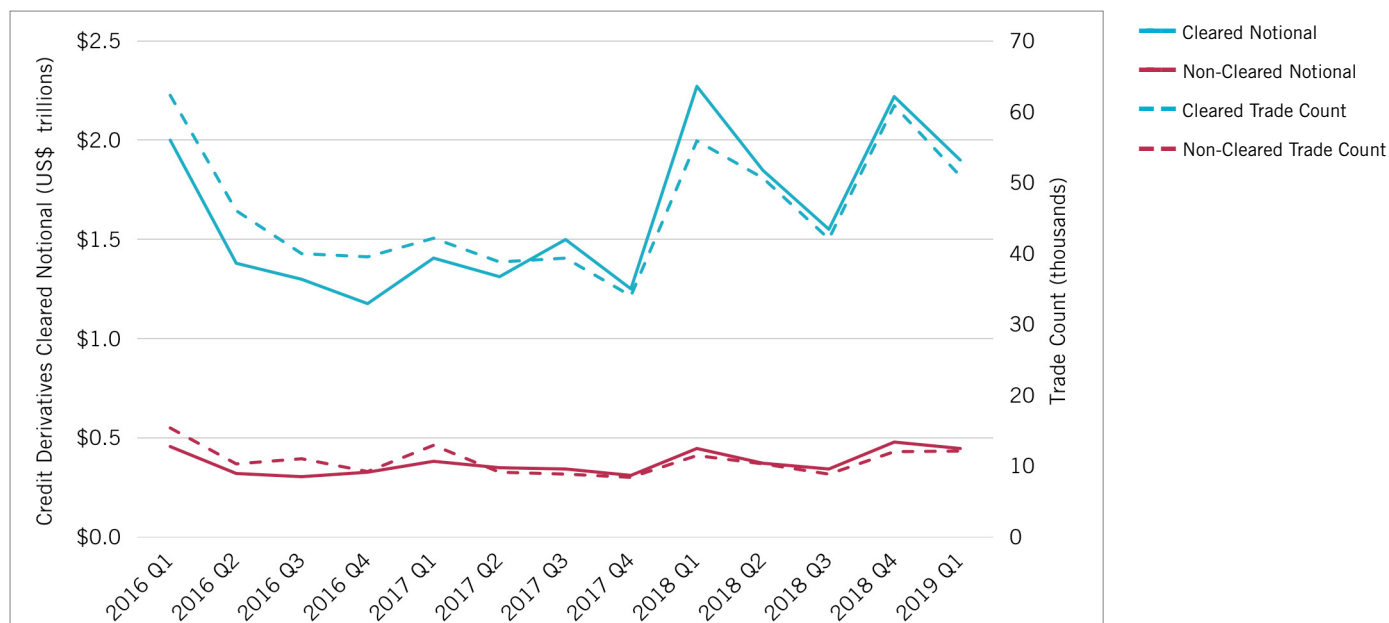
Percentage of Credit Derivatives Cleared Notional and Trade Count



Source: DTCC and Bloomberg SDRs

Credit derivatives cleared notional decreased by 16.4% to \$1.9 trillion in the first quarter of 2019 from \$2.3 trillion in the first quarter of 2018. Cleared trade count decreased by 8.8% over the same period to 50,956 from 55,869. Non-cleared notional increased by 0.4% to \$446.5 billion in the first quarter of 2019 from \$444.6 billion in the first quarter of 2018. Trade count increased by 5.7% over the same period.

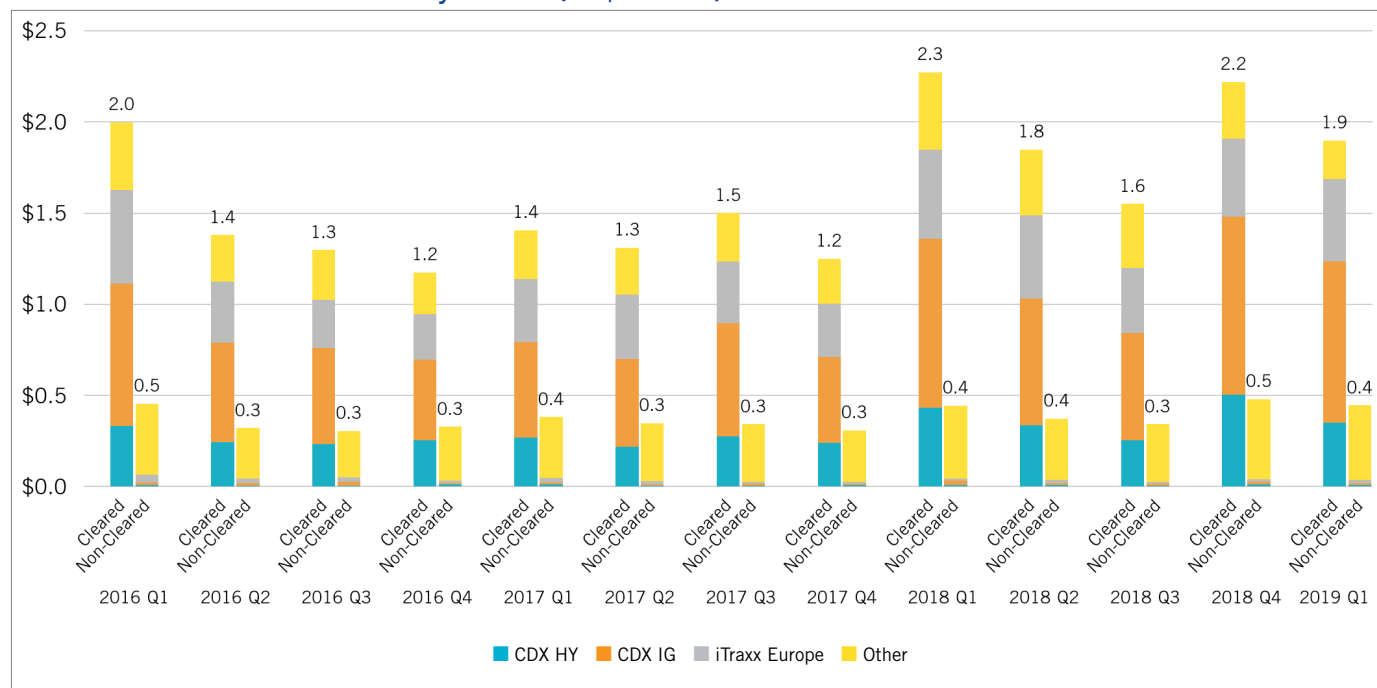
Credit Derivatives Cleared Notional and Trade Count



Source: DTCC and Bloomberg SDRs

In the first quarter of 2019, \$352.0 billion (98%) of CDX HY and \$881.1 billion (99%) of CDX IG was cleared and \$8.6 billion and \$10.3 billion, respectively, was non-cleared. Cleared notional of iTraxx Europe totaled \$453.9 billion (96%), while non-cleared notional was \$16.7 billion. Only \$211.7 billion (34%) of other credit derivatives traded notional was cleared and \$410.9 billion was non-cleared.

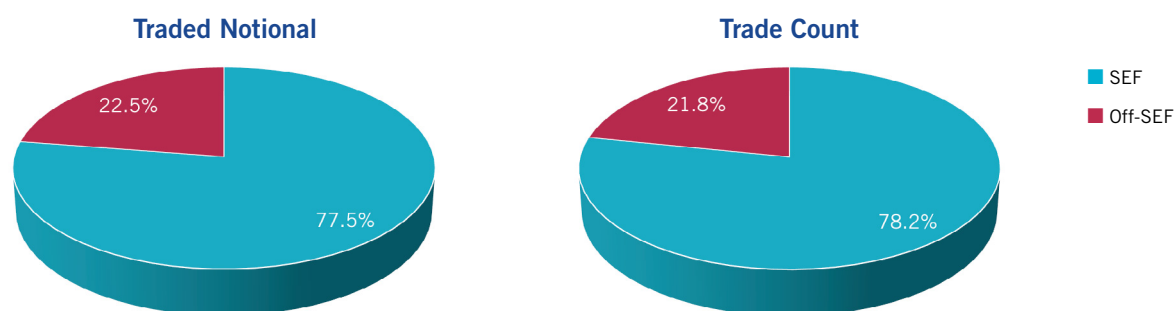
Credit Derivatives Cleared Notional by Product (US\$ trillions)



Source: DTCC and Bloomberg SDRs

Credit Derivatives Statistics: Trading Venue

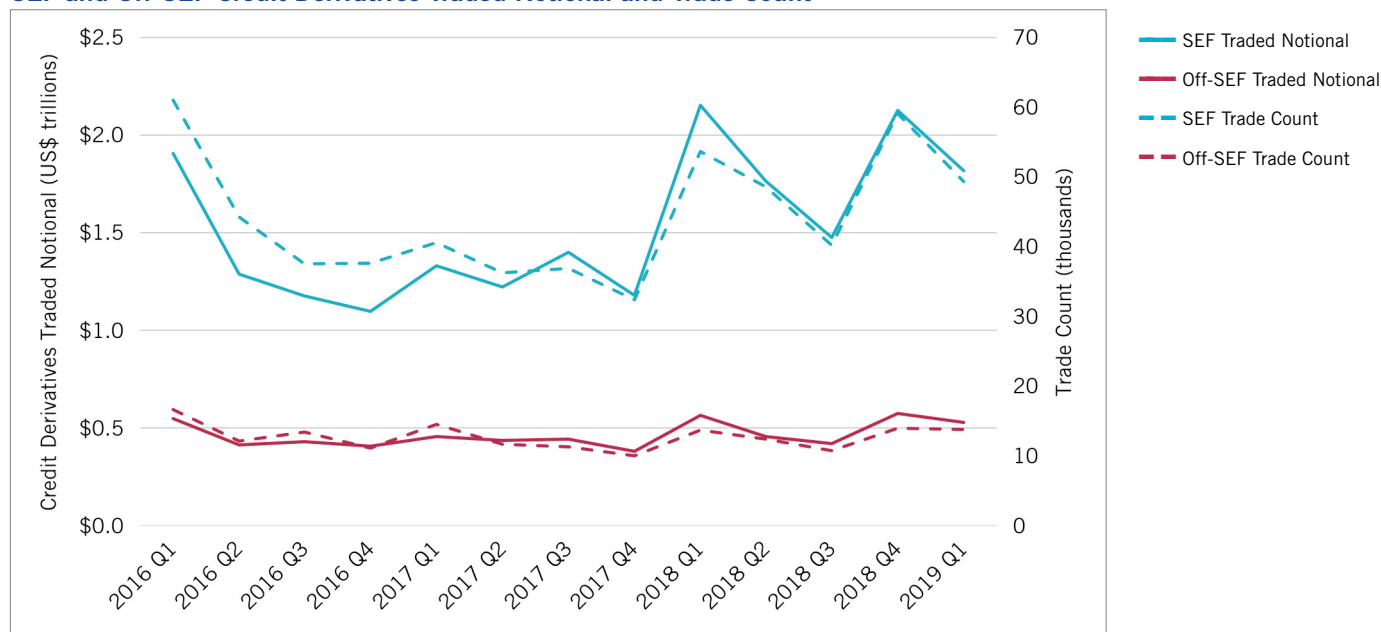
In the first quarter of 2019, SEF-traded credit derivatives represented 77.5% of traded notional and 78.2% of trade count. Total credit derivatives traded notional executed on SEFs was \$1.8 trillion, while \$0.5 trillion was executed off-SEF. 49,329 transactions were executed on SEFs and 13,751 transactions were transacted off-SEF.



Source: DTCC and Bloomberg SDRs

Traded notional executed on SEFs decreased by 15.6% in the first quarter of 2019 versus the first quarter of 2018, falling to \$1.8 trillion from \$2.2 trillion. The number of trades executed on SEFs decreased by 8.0% over the same period. Traded notional executed off-SEF decreased by 6.5% to \$528.3 billion in the first quarter of 2019 from \$564.7 billion in the first quarter of 2018. The number of transactions increased by 0.4% over the same period.

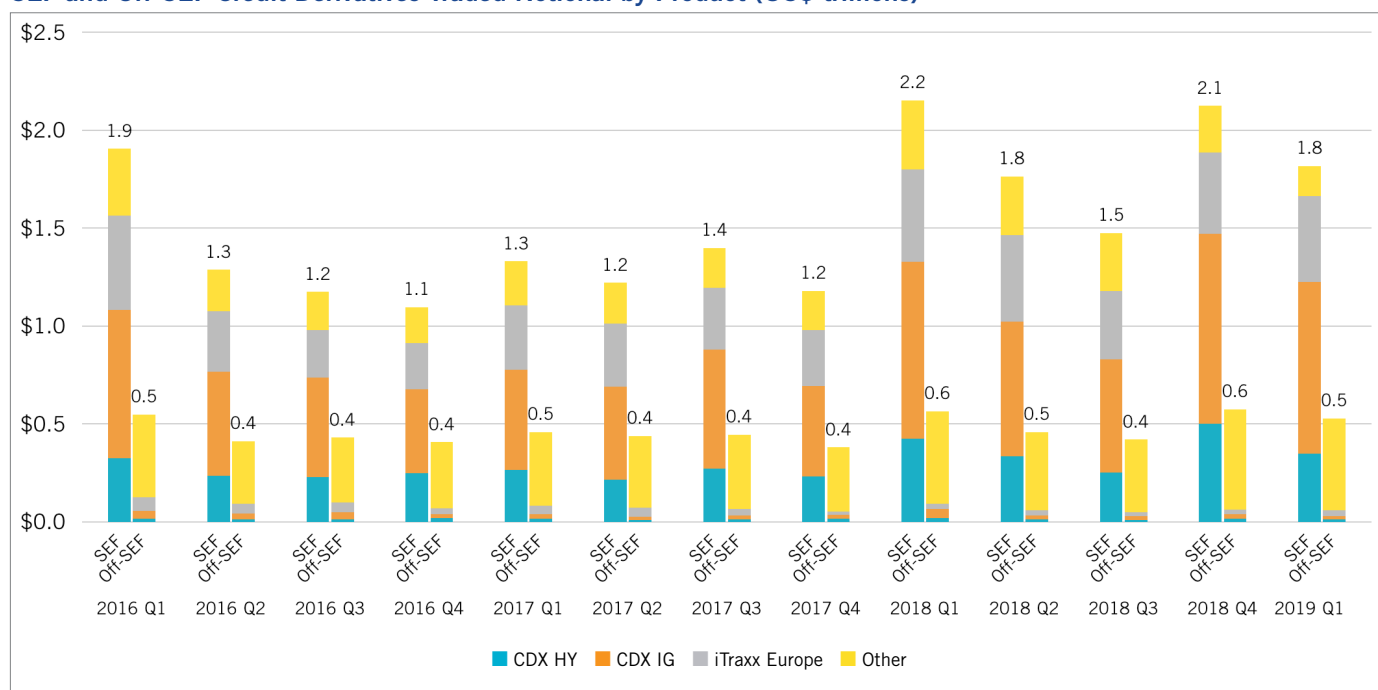
SEF and Off-SEF Credit Derivatives Traded Notional and Trade Count



Source: DTCC and Bloomberg SDRs

In the first quarter of 2019, \$348.9 billion (97%) of CDX HY and \$874.5 billion (98%) of CDX IG notional was traded on SEFs and only \$11.8 billion and \$16.9 billion, respectively, was executed off-SEF. \$440.2 billion (94%) of iTraxx Europe traded notional was executed on SEFs and \$30.3 billion occurred off-SEF. Only \$153.4 billion (25%) of traded notional for other credit derivatives was executed on SEFs and \$469.3 billion was traded off-SEF.

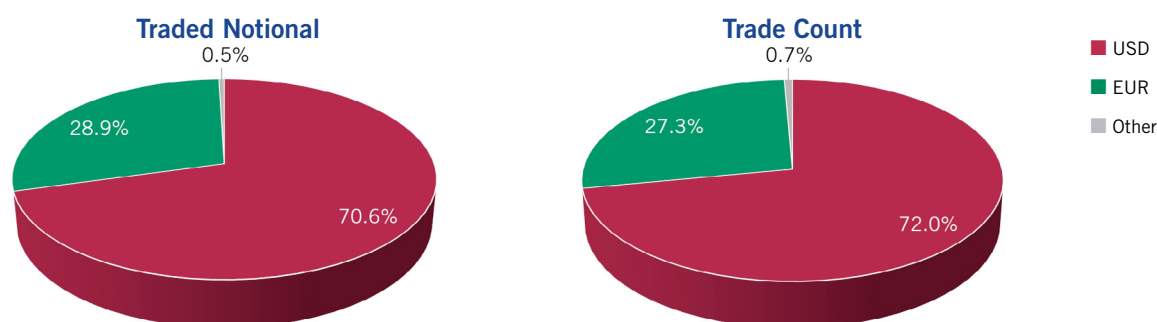
SEF and Off-SEF Credit Derivatives Traded Notional by Product (US\$ trillions)



Source: DTCC and Bloomberg SDRs

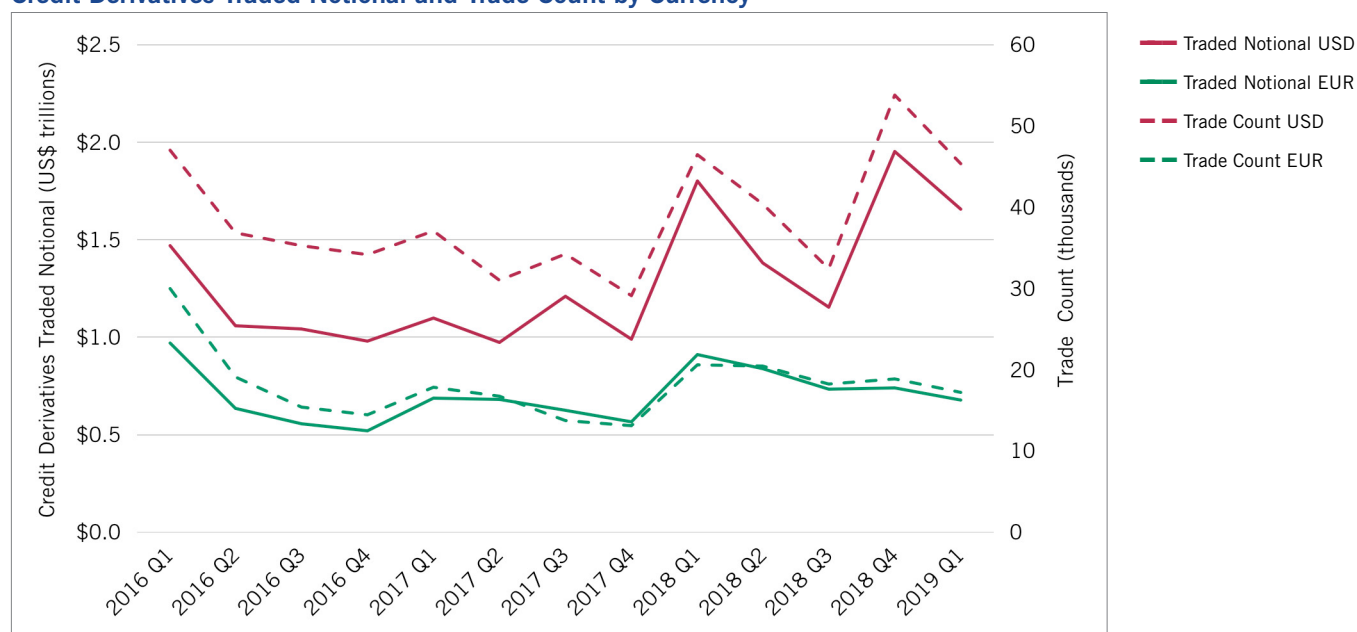
Credit Derivatives Statistics: Currency

In the first quarter of 2019, credit derivatives contracts denominated in US dollars remained the most actively traded instruments and represented 70.6% of total traded notional and 72.0% of trade count. Euro-denominated transactions accounted for 28.9% and 27.3% of total traded notional and trade count, respectively.



US dollar-denominated traded notional decreased by 8.0%, and euro-denominated traded notional decreased by 25.5% in the first quarter of 2019 compared with the first quarter of 2018. US dollar-denominated traded notional totaled \$1.7 trillion in the first quarter of 2019 compared with \$1.8 trillion in the first quarter of 2018. Euro-denominated traded notional declined to \$677.3 billion in the first quarter of 2019 versus \$909.5 billion in the first quarter of 2018. Trade count fell by 2.3% for US dollar-denominated trades and by 16.4% for euro-denominated trades over the same period.

Credit Derivatives Traded Notional and Trade Count by Currency



Source: DTCC and Bloomberg SDRs



ISDA has published other recent research papers:

- ***Interest Rate Benchmarks Review: First Quarter of 2019, April 2019***

<https://www.isda.org/a/eoUME/Interest-Rates-Benchmarks-Review-Q1-2019.pdf>

- ***ISDA Margin Survey Year-End 2019, April 2019***

<https://www.isda.org/2019/04/09/top-20-firms-collected-nearly-160-billion-in-initial-margin-at-year-end-2018-survey-finds/>

- ***Asia-Pacific Derivatives Survey, April 2019***

<https://www.isda.org/2019/04/08/asia-pacific-derivatives-survey/>

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ABOUT ISDA

Since 1985, ISDA has worked to make the global derivatives markets safer and more efficient. Today, ISDA has more than 900 member institutions from 71 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, intermediaries, 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. Follow us on Twitter @ISDA.