

SwapsInfo Full Year 2020 and the Fourth Quarter of 2020 Review

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

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 trades required to be disclosed under US regulations.

KEY HIGHLIGHTS FOR THE FULL YEAR 2020 AND THE FOURTH QUARTER OF 2020

Interest Rate Derivatives

In 2020, IRD traded notional fell by 10.2%, while trade count increased by 6.3% compared to 2019. Fixed-for-floating interest rate swaps (IRS), forward rate agreements (FRAs) and overnight index swaps (OIS) traded notional decreased by 12.6%, 7.0% and 10.0%, respectively. Fixed-for-floating IRS trade count increased by 3.2% in 2020 versus 2019, while FRA and OIS trade count was up by 13.4% and 25.9%, respectively. Average trade size declined for all products.

In the full year 2020:

- IRD traded notional decreased by 10.2% to \$230.6 trillion from \$256.8 trillion in the full year 2019. Trade count grew by 6.3% to 1.6 million from 1.5 million over the same period.
- Single currency fixed-for-floating IRS traded notional decreased to \$63.1 trillion from \$72.2 trillion. FRA traded notional fell to \$83.0 trillion from \$89.2 trillion, and OIS traded notional declined to \$58.3 trillion from \$64.8 trillion in 2019.
- Single currency fixed-for-floating IRS average trade size decreased by 16.0% in 2020. FRA and OIS average trade size declined by 9.9% and 34.4%, respectively.
- Single currency fixed-for-floating IRS accounted for 62.0% of total IRD trades but represented only 27.4% of total IRD traded notional in 2020. FRAs and OIS represented 36.0% and 25.3% of total traded notional and 16.3% and 7.1% of total trade count, respectively.
- Cleared IRD transactions represented 90.2% of total traded notional and 83.9% of total trade count. 95.3% of fixed-for-floating IRS, 99.3% of FRA, 97.3% of OIS and 33.5% of other IRD traded notional was cleared in 2020¹.

¹ A planned system upgrade by the DTCC SDR on November 21, 2020 changed reporting logic for the cleared status of trades. Following the upgrade, the percentage of trades indicated to be cleared appeared lower than historical averages as firms switched to the new reporting logic. As a result, quarterly and annual clearing rates in this report were calculated based on actual clearing rates up to November 21, and estimated clearing rates from November 21 to December 31, 2020. The estimated clearing rates were calculated by applying the actual clearing rate per product for the period from January 1, 2020 to November 21, 2020 to the traded notional for the period between November 21, 2020 and December 31, 2020

- SEF-traded IRD represented 59.6% of total traded notional and 63.2% of total trade count. 61.4% of fixed-for-floating IRS, 85.6% of FRA, 30.2% of OIS and 38.4% of other IRD traded notional was executed on SEFs in 2020².
- IRD contracts denominated in US dollars contributed 60.0% of total traded notional and 51.0% of total trade count in 2020. Euro-denominated transactions accounted for 13.8% of total traded notional and 14.5% of total trade count. Sterling-denominated transactions comprised 13.4% and 9.7% of total IRD traded notional and trade count, respectively.
- Fixed-for-floating IRS, FRA and OIS contracts denominated in US dollars decreased by 17.7%, 11.4% and 35.2%, respectively, compared to 2019. Euro-denominated FRAs and OIS increased by 7.1% and 4.1%, respectively, while euro-denominated IRS decreased by 17.8%. Sterling-denominated IRS, FRA and OIS traded notional increased by 4.3%, 42.8% and 111.4%, respectively.

In the fourth quarter of 2020:

- IRD traded notional decreased by 17.7% to \$41.1 trillion from \$49.9 trillion in the fourth quarter of 2019. Trade count fell by 1.0% to 340.5 thousand from 344.1 thousand over the same period.
- Single currency fixed-for-floating IRS traded notional decreased by 4.9% to \$14.1 trillion from \$14.8 trillion. FRA traded notional dropped by 27.0% to \$11.5 trillion from \$15.8 trillion, and OIS traded notional declined by 24.0% to \$9.7 trillion from \$12.8 trillion in the fourth quarter of 2019.
- Single currency fixed-for-floating IRS average trade size decreased by 5.5% in the fourth quarter of 2020 versus the same period in 2019. FRA average trade size increased by 0.2%, while OIS average trade size declined by 38.3%.
- Single currency fixed-for-floating IRS accounted for 64.8% of total IRD trades but represented only 34.3% of total IRD traded notional in the fourth quarter of 2020. FRAs and OIS represented 28.1% and 23.6% of total traded notional and 10.5% and 7.9% of total trade count, respectively.

² A planned system upgrade by the DTCC SDR on November 21, 2020 caused execution venue not to be included in its public price dissemination information. As of December 5, 2020, this issue has been resolved and execution venue type is being published. Missing data was estimated on the SwapsInfo website and in this report, based on actual SEF-execution metrics per product for the period from January 1, 2020 to November 21, 2020

- Cleared IRD transactions represented 87.8% of total traded notional and 81.7% of total trade count. 95.3% of fixed-for-floating IRS, 99.5% of FRA, 97.1% of OIS and 30.5% of other IRD traded notional was cleared in the fourth quarter of 2020³.
- SEF-traded IRD represented 59.3% of total traded notional and 61.8% of total trade count. 62.2% of fixed-for-floating IRS, 87.4% of FRA, 34.9% of OIS and 37.0% of other IRD traded notional was executed on SEFs in the fourth quarter of 2020⁴.
- IRD contracts denominated in US dollars contributed 57.9% of total traded notional and 50.4% of total trade count in the fourth quarter of 2020. Euro-denominated transactions accounted for 15.3% of total traded notional and 15.2% of total trade count. Sterling-denominated transactions comprised 13.4% and 8.9% of total IRD traded notional and total trade count, respectively.
- FRA and OIS contracts denominated in US dollars decreased by 27.4% and 58.5%, respectively, while US dollar-denominated fixed-for-floating IRS contracts increased by 3.1% compared to the fourth quarter of 2019. Euro-denominated IRS and FRAs decreased by 11.1% and 32.1%, respectively, while euro-denominated OIS increased by 83.5%. Sterling-denominated IRS and FRA traded notional decreased by 10.2% and 9.5%, respectively, while sterling-denominated OIS traded notional increased by 34.3% in the fourth quarter of 2020.

Credit Derivatives

Credit derivatives traded notional and trade count increased by 14.8% and 18.9%, respectively, in 2020 compared to 2019⁵. There was more trading activity across all major indices, including CDX HY, CDX IG and iTraxx Europe.

In the full year 2020:

- Credit derivatives traded notional increased by 14.8% to \$9.7 trillion from \$8.5 trillion in the full year 2019. Trade count grew by 18.9% to 276.1 thousand from 232.1 thousand over the same period.

³ These rates were estimated. Please see Footnote 1

⁴ These rates were estimated. Please see Footnote 2

⁵ Credit derivatives mostly comprise CDS indices, but also include CDS index tranches, credit swaptions, exotic products, total return swaps and an insignificant amount of single-name CDS

- CDX HY traded notional increased by 21.3% to \$1.7 trillion from \$1.4 trillion in 2019. CDX IG traded notional increased by 24.4% to \$3.9 trillion from \$3.1 trillion. iTraxx Europe traded notional rose by 13.7% to \$1.7 trillion in 2020 from \$1.5 trillion in 2019.
- CDX HY and CDX IG represented 17.4% and 40.3% of total traded notional and 28.8% and 27.1% of total trade count, respectively, in 2020. iTraxx Europe accounted for 17.4% of total credit derivatives traded notional and 12.2% of total trade count.
- Cleared credit derivatives transactions represented 82.5% of total traded notional and 82.1% of total trade count in 2020. 96.9% of CDX HY, 97.4% of CDX IG, 89.3% of iTraxx Europe and 43.9% of other credit derivatives traded notional was cleared⁶.
- SEF-traded credit derivatives represented 78.9% of both total traded notional and trade count in 2020. 95.7% of CDX HY, 96.0% of CDX IG, 87.0% of iTraxx Europe and 33.8% of other credit derivatives traded notional was executed on SEFs⁷.
- Credit derivatives contracts denominated in US dollars represented 71.6% of total traded notional and 72.4% of total trade count in 2020. Euro-denominated transactions accounted for 28.1% and 27.2% of total traded notional and trade count, respectively.

In the fourth quarter of 2020:

- Credit derivatives traded notional increased by 0.6% to \$1.8 trillion from \$1.7 trillion in the fourth quarter of 2019. Trade count grew by 10.7% to 53.7 thousand from 48.5 thousand over the same period.

⁶ A planned system upgrade by the DTCC SDR on November 21, 2020 changed reporting logic for the cleared status of trades. Following the upgrade, the percentage of trades indicated to be cleared appeared lower than historical averages as firms switched to the new reporting logic. As a result, quarterly and annual clearing rates in this report were calculated based on actual clearing rates up to November 21, and estimated clearing rates from November 21 to December 31, 2020. The estimated clearing rates were calculated by applying the actual clearing rate per product for the period from January 1, 2020 to November 21, 2020 to the traded notional for the period between November 21, 2020 and December 31, 2020

⁷ A planned system upgrade by the DTCC SDR on November 21, 2020 caused execution venue not to be included in its public price dissemination information. As of December 5, 2020, this issue has been resolved and execution venue type is being published. Missing data was estimated on SwapsInfo website and in this report based on actual SEF-execution metrics per product for the period from January 1, 2020 to November 21, 2020

- CDX HY traded notional increased by 6.1% to \$307.5 billion in the fourth quarter of 2020 versus \$289.7 billion in the fourth quarter of 2019. CDX IG traded notional increased by 9.7% to \$678.2 billion from \$618.2 billion, and iTraxx Europe traded notional rose by 2.9% to \$302.6 billion from \$294.1 billion over the same period.
- CDX HY and CDX IG represented 17.5% and 38.6% of total traded notional and 28.6% and 26.0% of total trade count, respectively, in the fourth quarter of 2020. iTraxx Europe accounted for 17.2% of total credit derivatives traded notional and 11.8% of total trade count.
- Cleared credit derivatives transactions represented 81.4% of total traded notional and 81.2% of total trade count in the fourth quarter of 2020. 97.1% of CDX HY, 97.6% of CDX IG, 87.0% of iTraxx Europe and 44.2% of other credit derivatives traded notional was cleared⁸.
- SEF-traded credit derivatives represented 76.8% of total traded notional and 76.9% of total trade count in the fourth quarter of 2020. 95.4% of CDX HY, 96.2% of CDX IG, 83.8% of iTraxx Europe and 31.9% of other credit derivatives traded notional was executed on SEFs⁹.
- Credit derivatives contracts denominated in US dollars represented 70.2% of total traded notional and 71.8% of total trade count in the fourth quarter of 2020. Euro-denominated transactions accounted for 29.5% and 27.8% of total traded notional and trade count, respectively.

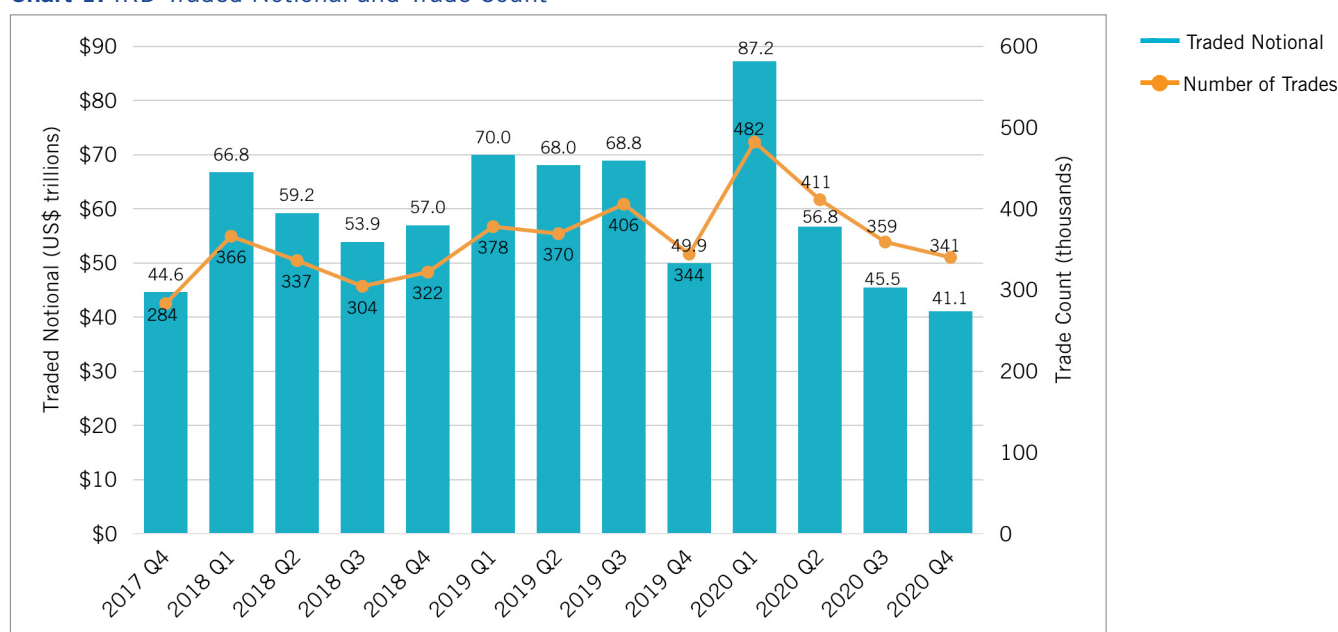
⁸ These rates were estimated. Please see Footnote 6

⁹ These rates were estimated. Please see Footnote 7

INTEREST RATE DERIVATIVES

IRD traded notional declined by 17.7% to \$41.1 trillion in the fourth quarter of 2020 from \$49.9 trillion in the fourth quarter of 2019. Trade count fell by 1.0% over the same period to 340.5 thousand from 344.1 thousand (see Chart 1).

Chart 1: IRD Traded Notional and Trade Count



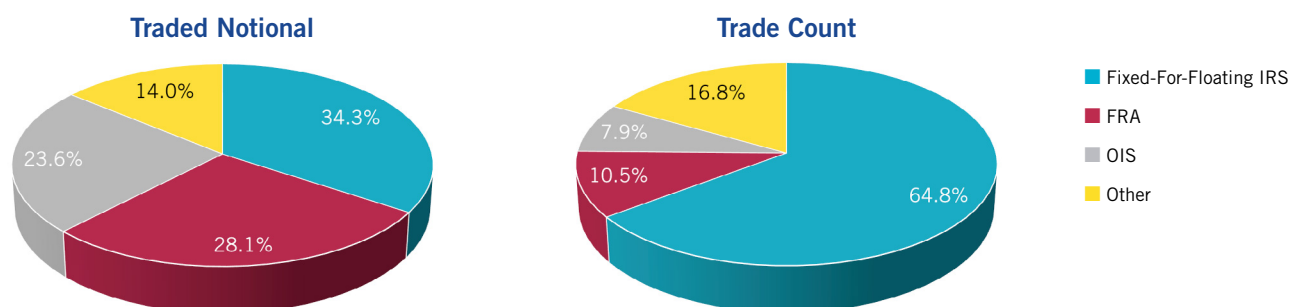
Source: DTCC and Bloomberg SDRs

In the full year 2020, IRD traded notional decreased by 10.2% to \$230.6 trillion from \$256.8 trillion in the full year 2019. Trade count increased by 6.3% to 1.6 million from 1.5 million over the same period.

IRD Product Taxonomy

Single currency fixed-for-floating IRS accounted for 64.8% of total IRD trade count, but represented only 34.3% of total IRD traded notional in the fourth quarter of 2020. FRAs and OIS represented 28.1% and 23.6% of total traded notional and 10.5% and 7.9% of total trade count, respectively (see Chart 2).

Chart 2: IRD Traded Notional and Trade Count by Product



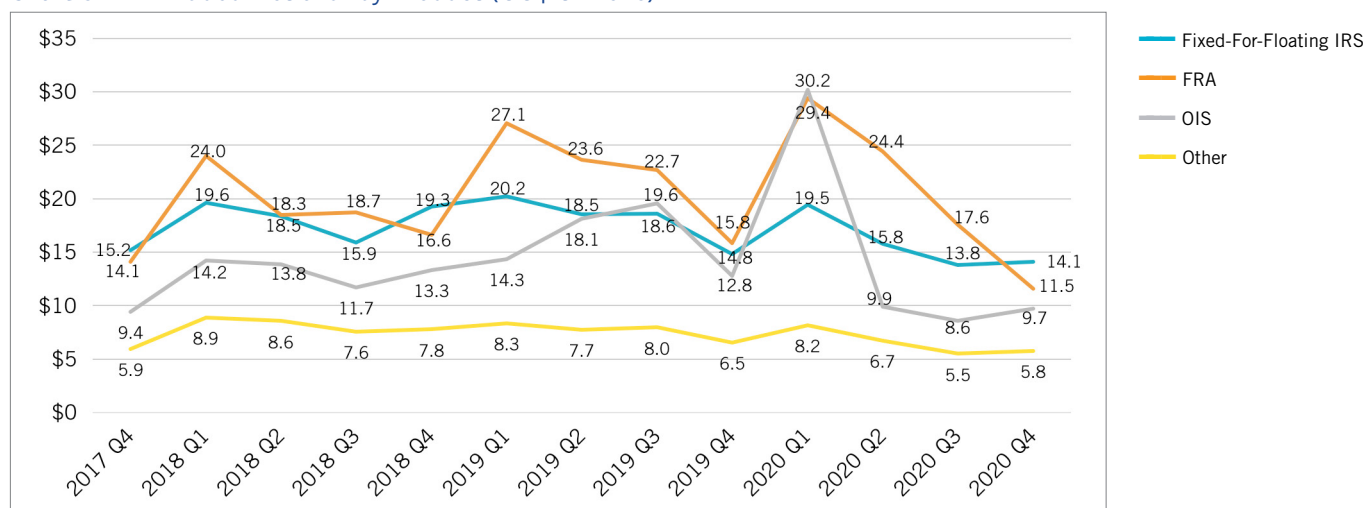
Source: DTCC and Bloomberg SDRs

Fixed-for-floating IRS traded notional decreased by 4.9% from \$14.8 trillion in the fourth quarter of 2019 to \$14.1 trillion in the fourth quarter of 2020. IRS trade count decreased by 1.2% from 223.4 thousand to 220.7 thousand over the same period (see Chart 3 and Chart 4). In the full year 2020, fixed-for-floating IRS traded notional decreased by 12.6% to \$63.1 trillion from \$72.2 trillion in the full year 2019. Trade count grew by 3.2% from 957.0 thousand to 987.8 thousand over the same period.

FRA traded notional decreased by 27.0% from \$15.8 trillion in the fourth quarter of 2019 to \$11.5 trillion in the fourth quarter of 2020. Trade count decreased by 21.0% from 45.2 thousand to 35.7 thousand over the same period. In the full year 2020, FRA traded notional decreased by 7.0% to \$83.0 trillion from \$89.2 trillion in the full year 2019. Trade count grew by 13.4% to 259.3 thousand from 228.6 thousand over the same period.

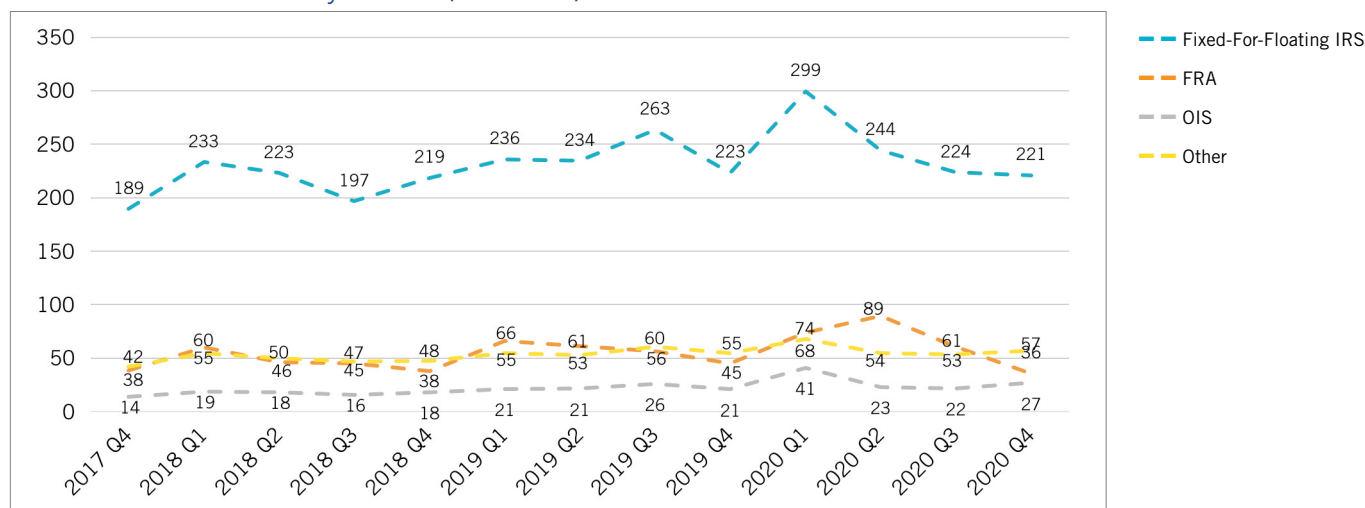
OIS traded notional decreased by 24.0% from \$12.8 trillion in the fourth quarter of 2019 to \$9.7 trillion in the fourth quarter of 2020. OIS trade count increased by 28.9% to 26.8 thousand in the fourth quarter of 2020 compared to 20.8 thousand in the fourth quarter of 2019. In the full year 2020, OIS traded notional decreased by 10.0% to \$58.3 trillion from \$64.8 trillion in 2019. Trade count grew by 25.9% to 112.7 thousand from 89.5 thousand over the same period.

Chart 3: IRD Traded Notional by Product (US\$ trillions)



Source: DTCC and Bloomberg SDRs

Chart 4: IRD Trade Count by Product (thousands)



Source: DTCC and Bloomberg SDRs

IRD Average Daily Traded Notional, Trade Count and Trade Size

Fixed-for-floating IRS average daily traded notional decreased by 4.9% in the fourth quarter of 2020 versus the fourth quarter of 2019, totaling \$213.5 billion. Fixed-for-floating IRS average daily trade count and average trade size decreased by 1.2% and 5.5%, respectively. In the full year 2020, average trade size declined by 16.0% to \$63.5 million from \$75.6 million in 2019 (see Table 1).

FRA average daily traded notional totaled \$180.4 billion in the fourth quarter of 2020, 25.9% lower compared to the fourth quarter of 2019. FRA average daily trade count decreased by 19.8%, while average trade size increased by 0.2% over the same period. Average trade size declined by 9.9% to \$690.1 million in the full year 2020 compared to \$765.6 million in 2019.

OIS average daily traded notional was \$149.5 billion in the fourth quarter of 2020, a 24.0% decrease compared to the fourth quarter of 2019. OIS average daily trade count increased by 28.9%, while average trade size decreased by 38.3%. In the full year 2020, average trade size declined by 34.4% to \$472.0 million from \$719.9 million in 2019.

Table 1: IRD Average Daily Traded Notional, Daily Trade Count and Trade Size

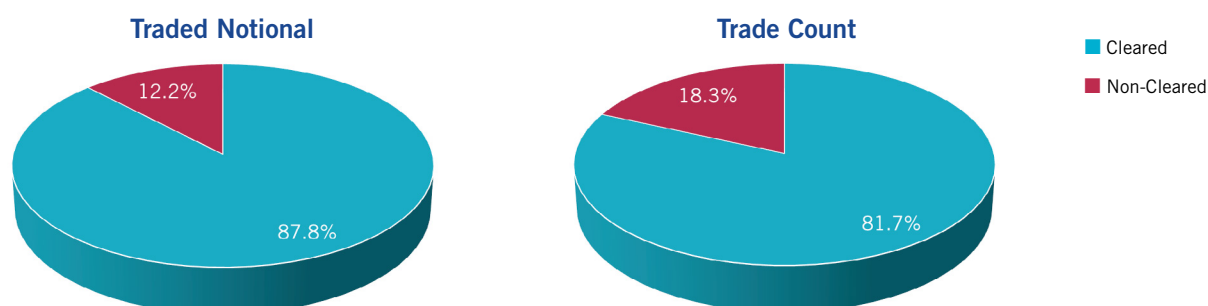
	Average Daily Traded Notional (US\$ billions)			Average Daily Trade Count			Average Trade Size (US\$ millions)		
	IRS	FRA	OIS	IRS	FRA	OIS	IRS	FRA	OIS
2020 Q4	213.5	180.4	149.5	3,344	557	413	62.6	744.7	376.8
2019 Q4	224.6	243.4	196.6	3,384	695	320	66.3	743.2	610.8
2020 Q4 vs. 2019 Q4	-4.9%	-25.9%	-24.0%	-1.2%	-19.8%	28.9%	-5.5%	0.2%	-38.3%
Full Year 2020	241.2	322.0	223.9	3,773	1,006	432	63.5	690.1	472.0
Full Year 2019	278.3	348.1	250.1	3,681	892	345	75.6	765.6	719.9
Full Year 2020 vs. Full Year 2019	-13.3%	-7.5%	-10.5%	2.5%	12.8%	25.2%	-16.0%	-9.9%	-34.4%

Source: DTCC and Bloomberg SDRs

IRD Central Clearing

Cleared IRD transactions represented 87.8% of total IRD traded notional and 81.7% of total trade count during the fourth quarter of 2020 (see Chart 5)¹⁰. IRD cleared notional and trade count totaled \$36.1 trillion and 278.3 thousand, respectively.

Chart 5: IRD Cleared Traded Notional and Trade Count



Source: DTCC and Bloomberg SDRs

¹⁰ These rates were estimated. Please see Footnote 1

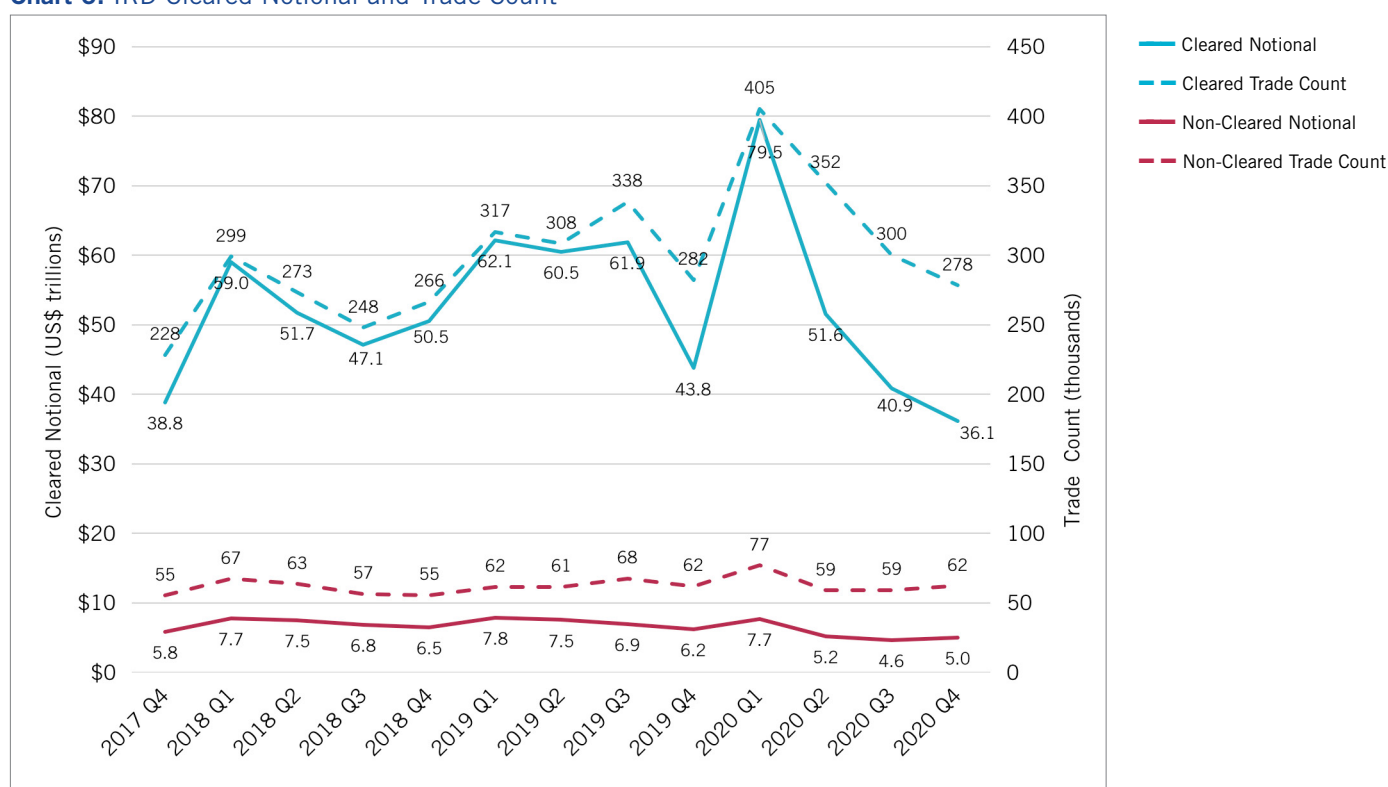
IRD cleared notional decreased by 17.5% from \$43.8 trillion in the fourth quarter of 2019 to \$36.1 trillion in the fourth quarter of 2020 (see Chart 6). Cleared trade count fell by 1.3% from 282.1 thousand to 278.3 thousand over the same period.

IRD non-cleared notional fell by 18.8% in the fourth quarter of 2020 versus the fourth quarter of 2019, from \$6.2 trillion to \$5.0 trillion. Trade count increased by 0.3% from 62.0 thousand to 62.2 thousand over the same period.

In the full year 2020, IRD cleared notional decreased by 8.9% to \$208.1 trillion from \$228.3 trillion in the full year 2019. Trade count grew by 7.2% from 1.2 million to 1.3 million over the same period.

IRD non-cleared notional fell by 21.1% to \$22.5 trillion in the full year 2020. Trade count increased by 1.8% from 252.5 thousand to 257.0 thousand year-over-year.

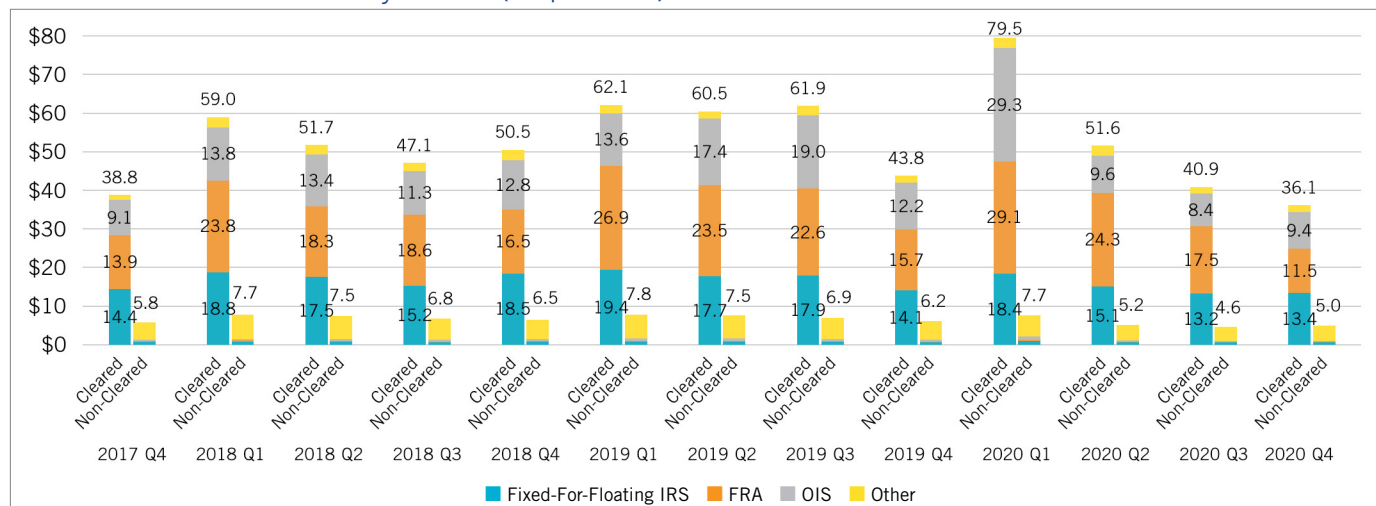
Chart 6: IRD Cleared Notional and Trade Count



Source: DTCC and Bloomberg SDRs

In the fourth quarter of 2020, \$13.4 trillion (95.3%) of fixed-for-floating IRS traded notional was cleared and \$663.5 billion was non-cleared. Traded notional of cleared FRAs and OIS totaled \$11.5 trillion (99.5%) and \$9.4 trillion (97.1%), respectively. \$1.8 trillion (30.5%) of other IRD products notional was cleared and \$4.0 trillion was non-cleared (see Chart 7).

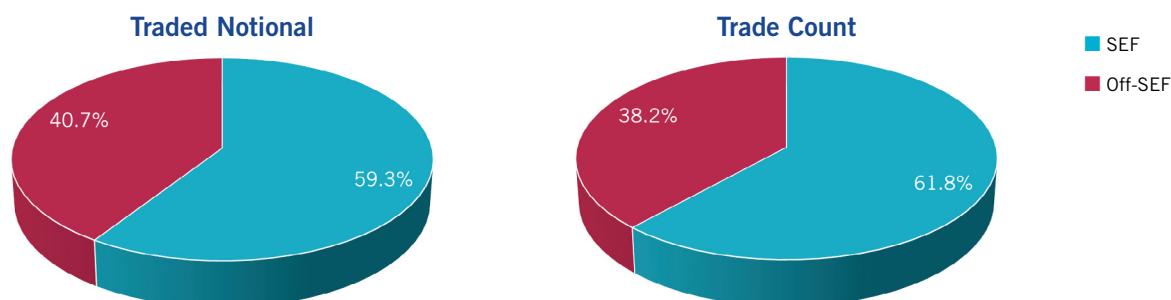
In the full year 2020, \$60.2 trillion (95.3%) of fixed-for-floating IRS traded notional was cleared and \$2.9 trillion was non-cleared. \$82.4 trillion (99.3%) of FRA and \$56.7 trillion (97.3%) of OIS traded notional was cleared. \$8.8 trillion (33.5%) of other IRD products traded notional was cleared and \$17.4 trillion was non-cleared.

Chart 7: IRD Cleared Notional by Product (US\$ trillions)

Source: DTCC and Bloomberg SDRs

IRD Trading Venue

SEF-traded IRD represented 59.3% of total IRD traded notional and 61.8% of total trade count in the fourth quarter of 2020 (see Chart 8)¹¹. Total IRD traded notional executed on SEFs was \$24.4 trillion, while \$16.7 trillion was executed off-SEF. In terms of trade count, 210.5 thousand transactions were executed on SEFs and 130.1 thousand occurred off-SEF.

Chart 8: SEF and Off-SEF IRD Traded Notional and Trade Count

Source: DTCC and Bloomberg SDRs

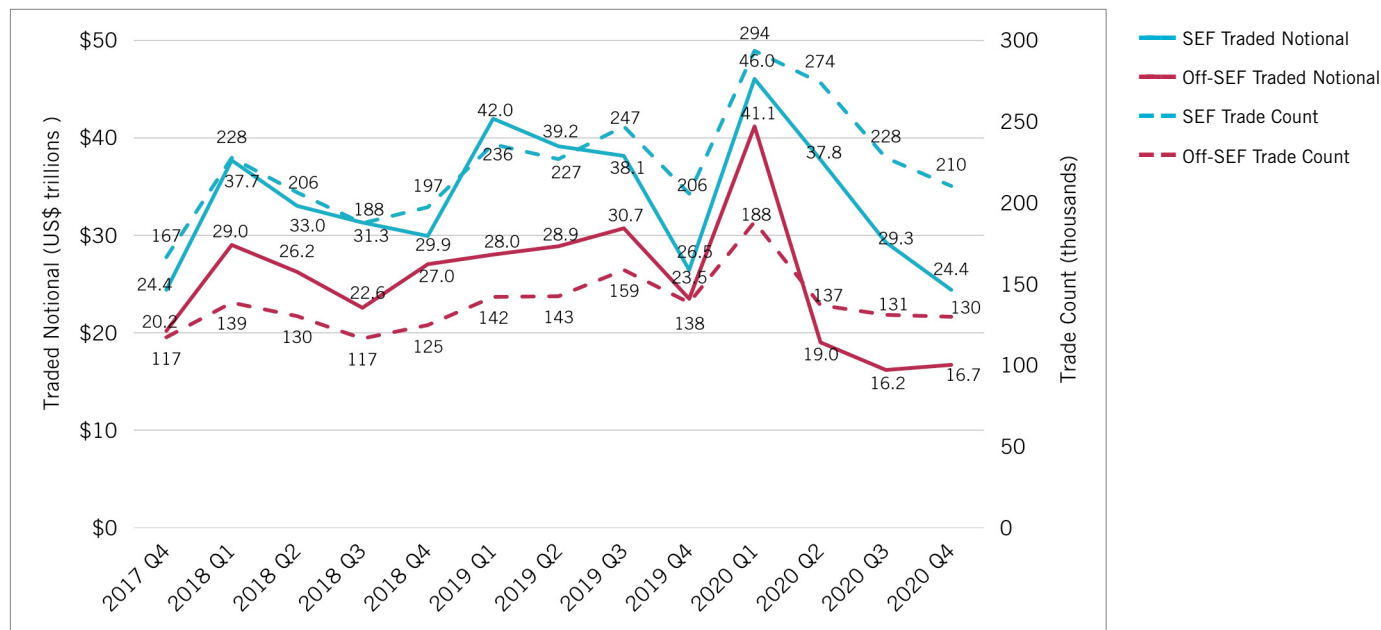
IRD traded notional executed on SEFs fell by 7.8% from \$26.5 trillion in the fourth quarter of 2019 to \$24.4 trillion in the fourth quarter of 2020. The number of trades executed on SEFs increased by 2.4% from 205.6 thousand to 210.5 thousand over the same period (see Chart 9).

IRD traded notional executed off-SEF decreased by 28.8% from \$23.5 trillion in the fourth quarter of 2019 to \$16.7 trillion in the fourth quarter of 2020. The number of transactions decreased by 6.1% from 138.5 thousand to 130.1 thousand over the same period.

In the full year 2020, IRD traded notional executed on SEFs declined by 5.6% to \$137.5 trillion from \$145.7 trillion in the full year 2019. Trade count increased by 9.9% from 915.7 thousand to 1.0 million over the same period.

IRD traded notional executed off-SEF decreased by 16.2% from \$111.1 trillion in the full year 2019 to \$93.1 trillion in the full year 2020. The number of transactions increased by 0.8% from 581.9 thousand to 586.5 thousand over the same period.

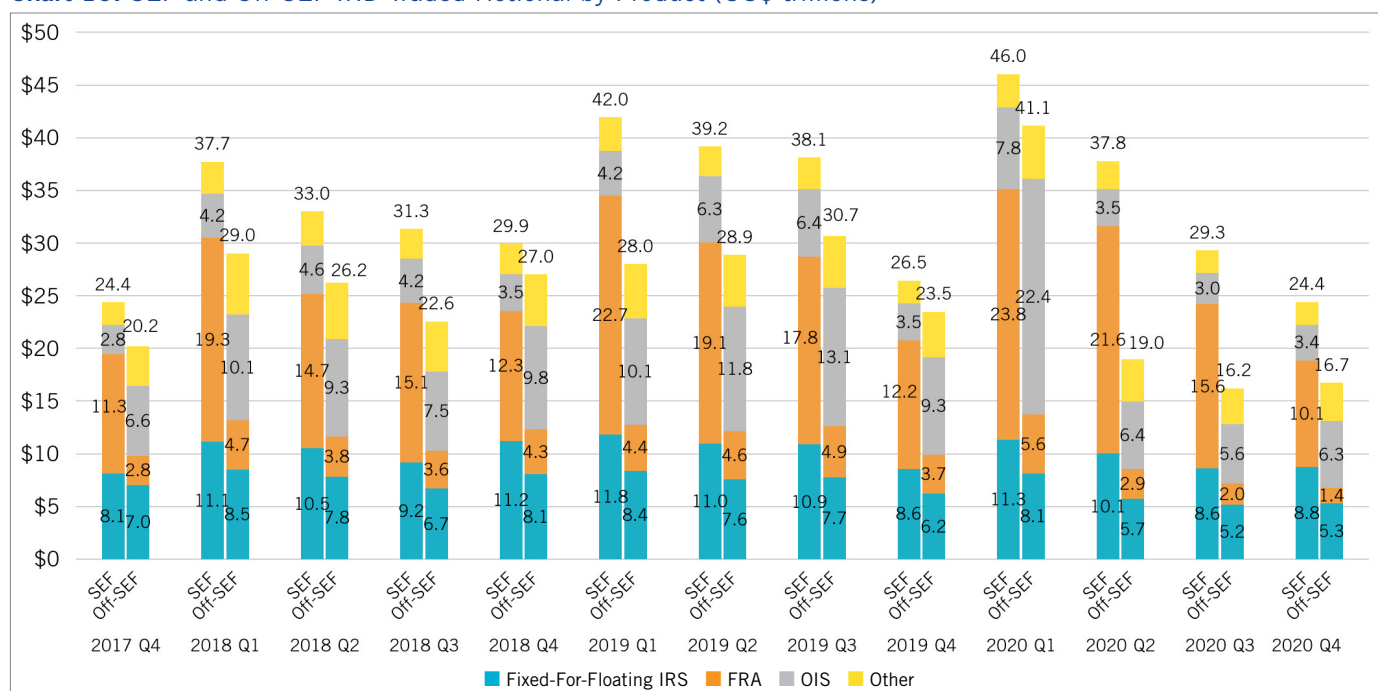
¹¹ These rates were estimated. Please see Footnote 2

Chart 9: SEF and Off-SEF IRD Traded Notional and Trade Count


Source: DTCC and Bloomberg SDRs

In the fourth quarter of 2020, \$8.8 trillion (62.2%) of fixed-for-floating IRS was traded on SEFs and \$5.3 trillion was executed off-SEF. \$10.1 trillion (87.4%) of FRAs was executed on SEFs and \$1.4 trillion was traded off-SEF. \$3.4 trillion (34.9%) of OIS was executed on SEFs and \$6.3 trillion occurred off-SEF (see Chart 10).

In the full year 2020, \$38.8 trillion (61.4%) of fixed-for-floating IRS was traded on SEFs and \$24.3 trillion was executed off-SEF. \$71.0 trillion (85.6%) of FRAs was executed on SEFs and \$11.9 trillion was traded off-SEF. \$17.6 trillion (30.2%) of OIS was executed on SEFs and \$40.7 trillion occurred off-SEF.

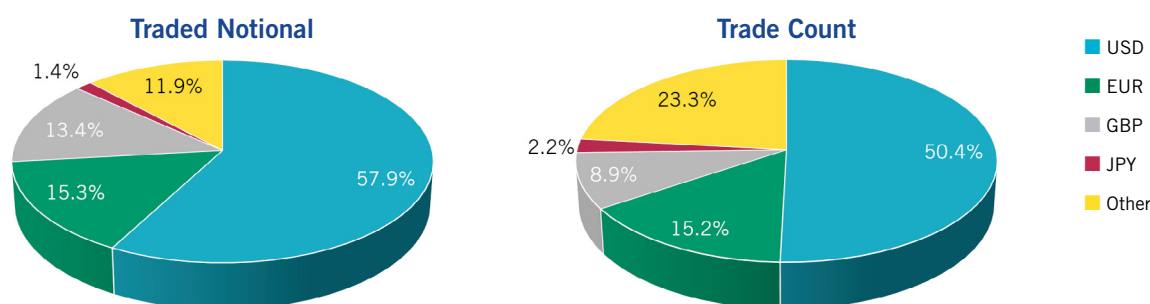
Chart 10: SEF and Off-SEF IRD Traded Notional by Product (US\$ trillions)


Source: DTCC and Bloomberg SDRs

IRD by Currency

IRD contracts denominated in US dollars were the most actively traded over the quarter. US dollar-denominated IRD contributed 57.9% of total IRD traded notional and 50.4% of total trade count in the fourth quarter of 2020. Euro-denominated transactions accounted for 15.3% of total IRD traded notional and 15.2% of total trade count. Sterling-denominated transactions totaled 13.4% and 8.9% of total IRD traded notional and trade count, respectively (see Chart 11).

Chart 11: IRD Traded Notional and Trade Count by Currency



Source: DTCC and Bloomberg SDRs

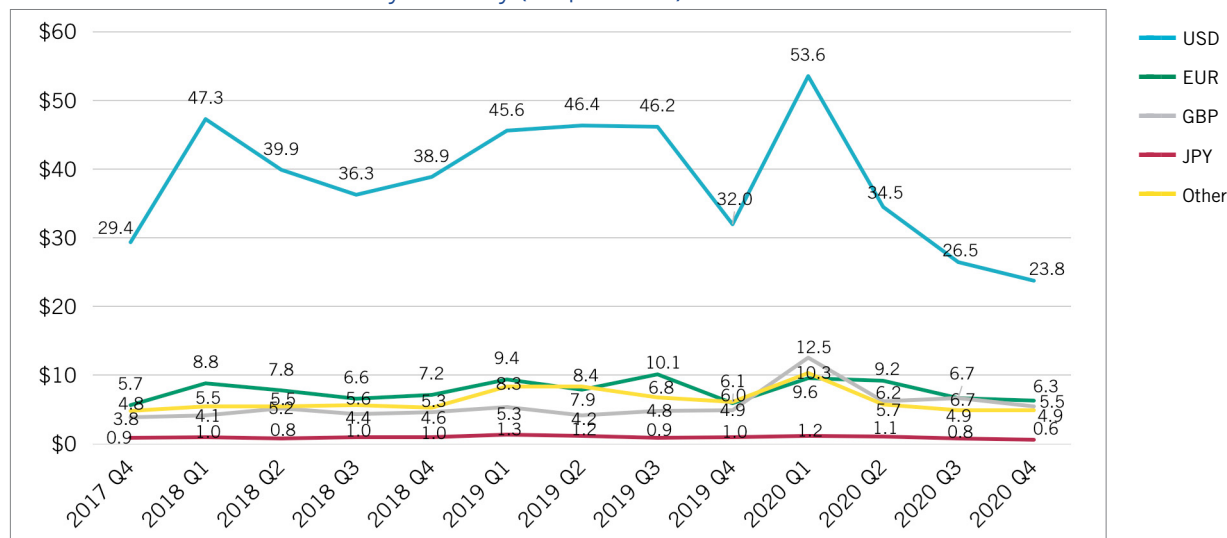
US dollar- and yen-denominated IRD traded notional decreased by 25.5% and 40.7%, respectively, while euro- and sterling-denominated IRD traded notional increased by 5.8% and 12.3%, respectively, in the fourth quarter of 2020 compared to the fourth quarter of 2019.

US dollar-denominated IRD traded notional totaled \$23.8 trillion in the fourth quarter of 2020 compared to \$32.0 trillion in the fourth quarter of 2019. Euro-denominated traded notional grew to \$6.3 trillion in the fourth quarter of 2020 versus \$6.0 trillion in the fourth quarter of 2019. Traded notional for sterling- and yen-denominated trades totaled \$5.5 trillion and \$595.5 billion, respectively, in the fourth quarter of 2020 (see Chart 12).

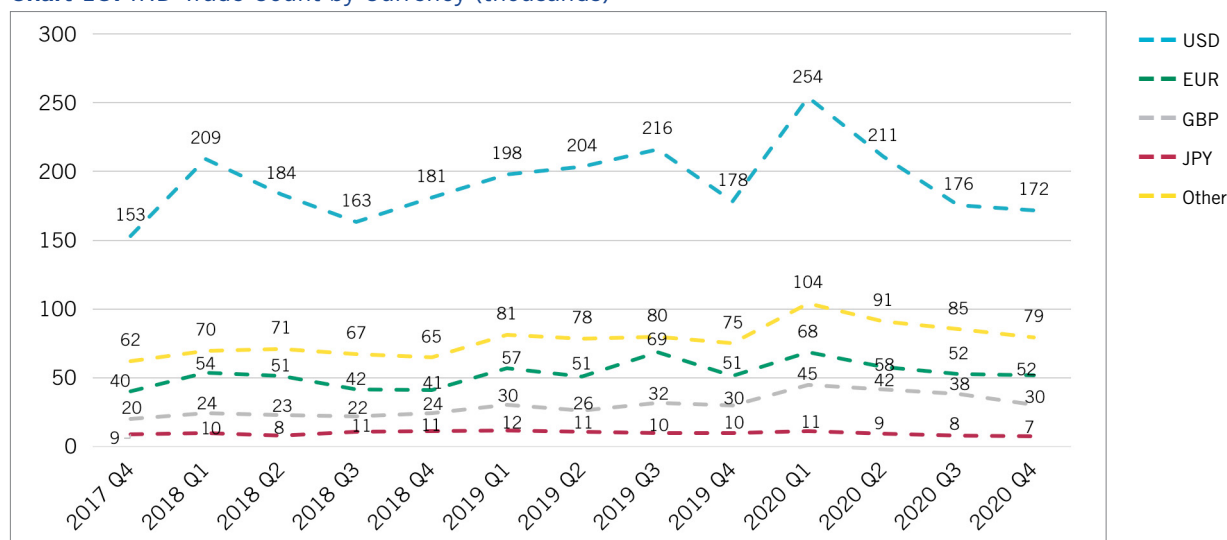
Trade count decreased by 3.7% to 171.7 thousand for US dollar-denominated IRD and by 24.7% to 7.4 thousand for yen-denominated trades. Trade count grew by 1.1% to 51.8 thousand for euro-denominated IRD and by 2.2% to 30.4 thousand for sterling-denominated trades (see Chart 13).

In the full year 2020, US dollar-denominated IRD traded notional decreased by 18.7% to \$138.4 trillion from \$170.1 trillion in the full year 2019. Euro-denominated traded notional decreased by 4.8% to \$31.8 trillion, yen-denominated traded notional decreased by 17.2% to \$3.6 trillion and sterling-denominated traded notional increased by 60.5% to \$30.9 trillion over the same period.

Trade count increased by 2.0% for US dollar-denominated trades, 1.3% for euro-denominated trades and 31.0% for sterling-denominated trades in the full year 2020. Trade count decreased by 14.7% for yen-denominated trades over the same period.

Chart 12: IRD Traded Notional by Currency (US\$ trillions)


Source: DTCC and Bloomberg SDRs

Chart 13: IRD Trade Count by Currency (thousands)


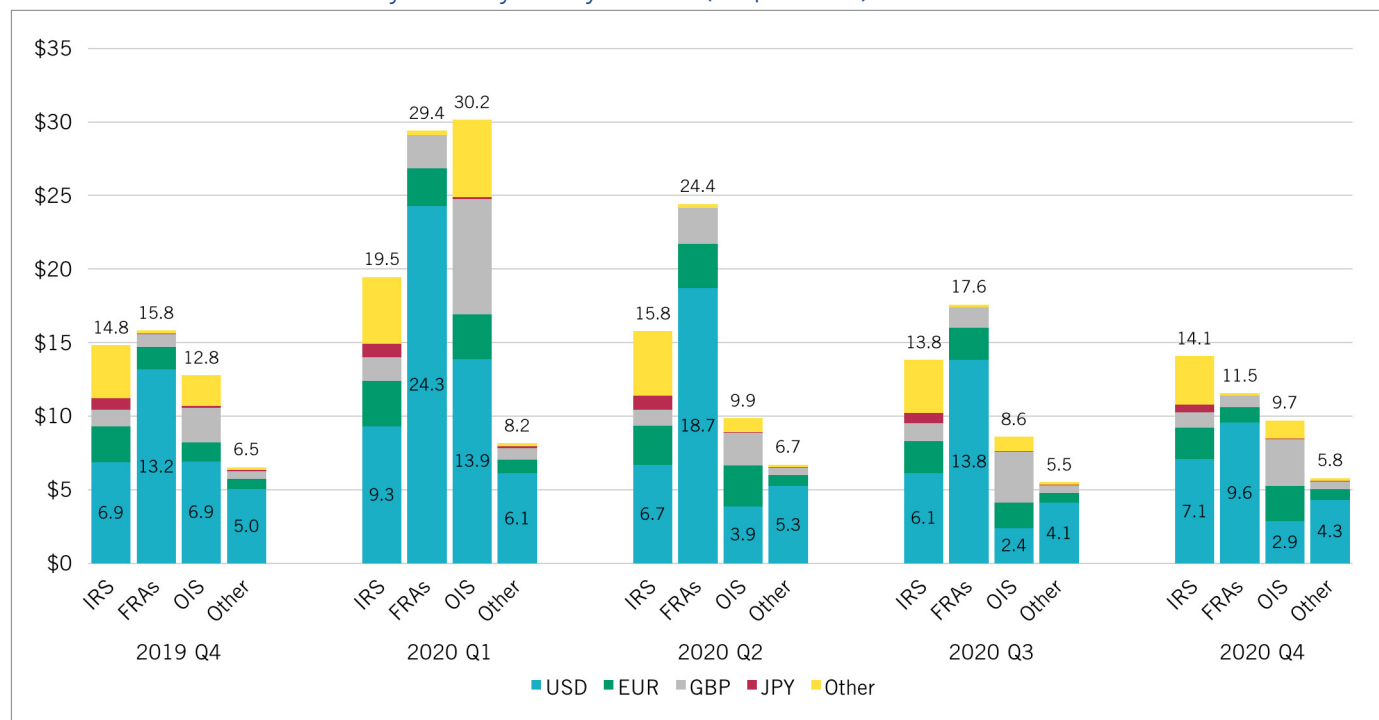
Source: DTCC and Bloomberg SDR

US dollar-denominated fixed-for-floating IRS traded notional rose by 3.1% to \$7.1 trillion in the fourth quarter of 2020 versus \$6.9 trillion in the fourth quarter of 2019. Euro-denominated fixed-for-floating IRS declined by 11.1% over the same period, from \$2.4 trillion to \$2.2 trillion. Sterling- and yen-denominated IRS traded notional totaled \$1.0 trillion and \$499.8 billion, respectively, in the fourth quarter of 2020 compared to \$1.1 trillion and \$797.5 billion in the fourth quarter of 2019 (see Chart 14).

US dollar-denominated FRA traded notional decreased by 27.4% to \$9.6 trillion in the fourth quarter of 2020 from \$13.2 trillion in the fourth quarter of 2019. Euro-denominated FRAs fell by 32.1% to \$1.0 trillion over the same period. Sterling-denominated FRAs decreased by 9.5% to \$0.8 trillion in the fourth quarter of 2020 from \$0.9 trillion in the fourth quarter of 2019.

US dollar-denominated OIS traded notional decreased by 58.5% to \$2.9 trillion in the fourth quarter of 2020 from \$6.9 trillion in the fourth quarter of 2019, while euro-denominated OIS increased by 83.5% to \$2.4 trillion from \$1.3 trillion over the same period. Sterling-denominated OIS increased by 34.3% to \$3.2 trillion in the fourth quarter of 2020 from \$2.3 trillion in the fourth quarter of 2019.

Chart 14: IRD Traded Notional by Currency and by Product (US\$ trillions)

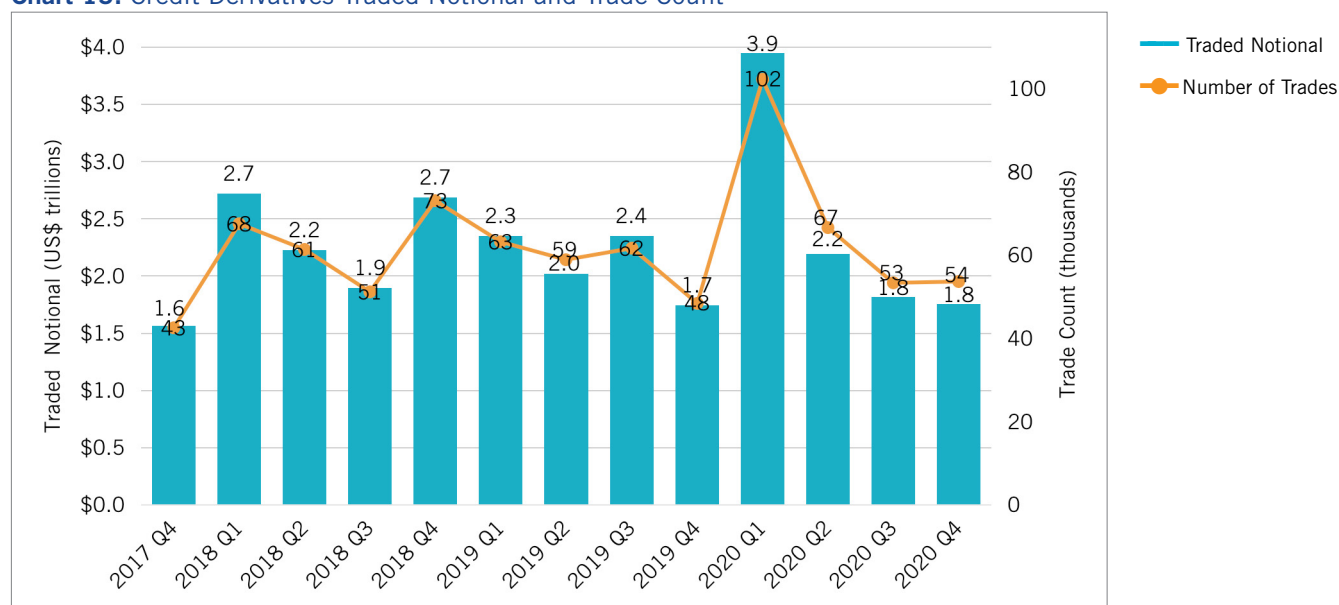


Source: DTCC and Bloomberg SDRs

CREDIT DERIVATIVES

Credit derivatives traded notional increased by 0.6% to \$1.8 trillion in the fourth quarter of 2020 from \$1.7 trillion in the fourth quarter of 2019¹². The number of trades increased by 10.7% to 53.7 thousand from 48.5 thousand over the same period (see Chart 15).

Chart 15: Credit Derivatives Traded Notional and Trade Count



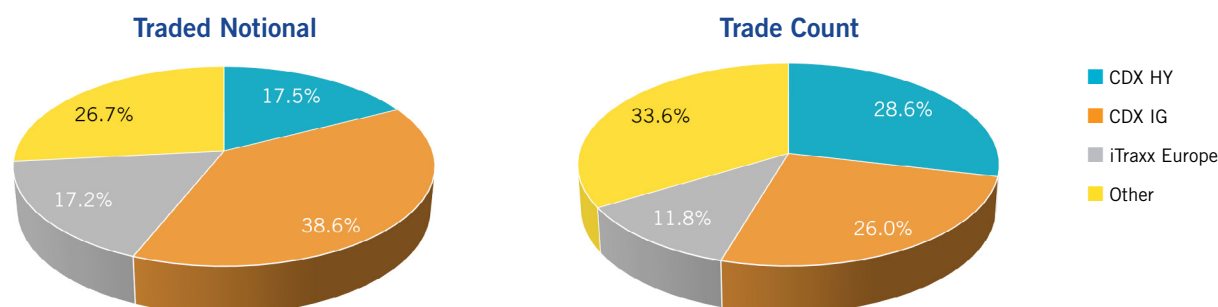
Source: DTCC and Bloomberg SDRs

In the full year 2020, credit derivatives traded notional increased by 14.8% to \$9.7 trillion from \$8.5 trillion in the full year 2019. Credit derivatives trade count increased by 18.9% to 276.1 thousand from 232.1 thousand over the same period.

Credit Derivatives Product Taxonomy

In the fourth quarter of 2020, CDX HY and CDX IG represented 17.5% and 38.6% of total traded notional and 28.6% and 26.0% of total trade count, respectively. iTraxx Europe accounted for 17.2% of total traded notional and 11.8% of total trade count (see Chart 16).

Chart 16: Credit Derivatives Traded Notional and Trade Count by Product



Source: DTCC and Bloomberg SDRs

¹² Credit derivatives mostly comprise CDS indices, but also include CDS index tranches, credit swaptions, exotic products, total return swaps and insignificant amount of single-name CDS

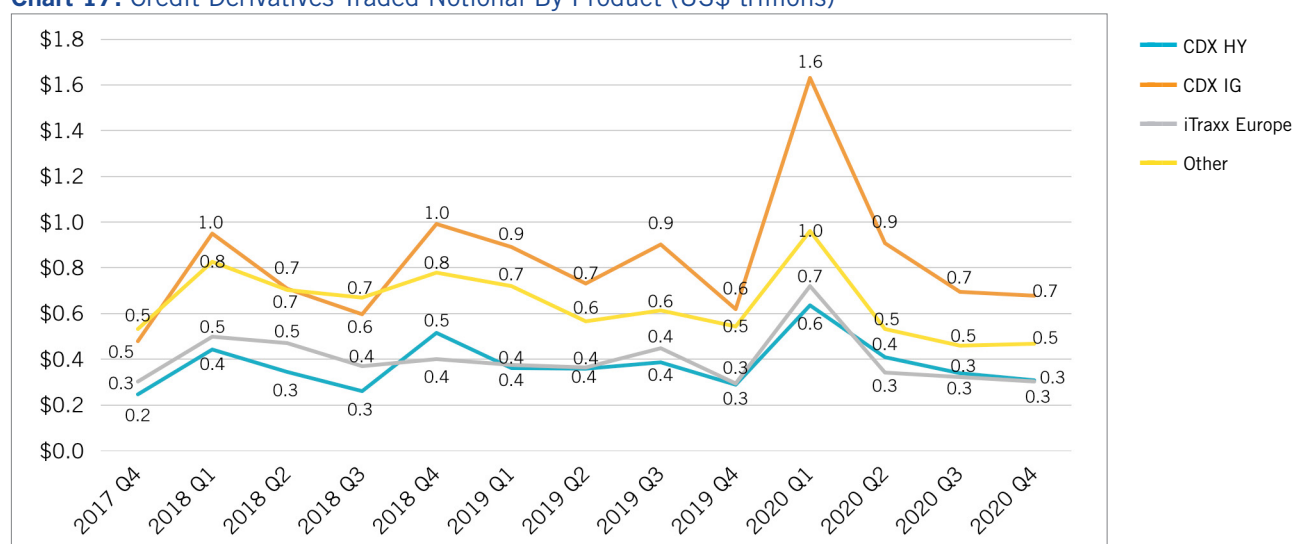
CDX HY and CDX IG traded notional increased by 6.1% and 9.7%, respectively, in the fourth quarter of 2020 compared to the fourth quarter of 2019. CDX HY increased to \$307.5 billion from \$289.7 billion, and CDX IG rose to \$678.2 billion from \$618.2 billion. Trade count increased by 11.7% for CDX HY and 18.3% for CDX IG over the same period (see Chart 17 and Chart 18).

iTraxx Europe traded notional increased by 2.9% to \$302.6 billion in the fourth quarter of 2020 from \$294.1 billion in the fourth quarter of 2019. Trade count rose by 8.2% to 6.3 thousand over the same period.

In the full year 2020, CDX HY traded notional increased by 21.3% to \$1.7 trillion from \$1.4 trillion in the full year 2019. CDX IG traded notional increased by 24.4% over the same period to \$3.9 trillion from \$3.1 trillion. Trade count for CDX HY and CDX IG rose by 19.7% and 30.3%, respectively.

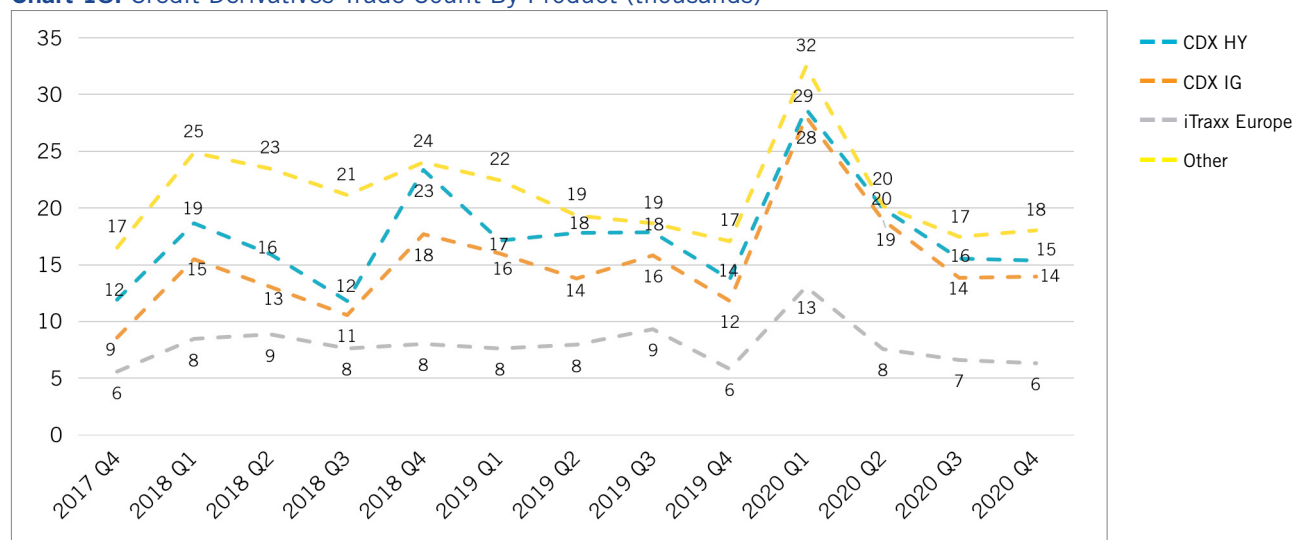
iTraxx Europe traded notional increased by 13.7% to \$1.7 trillion in the full year 2020 compared to \$1.5 trillion in the full year 2019. Trade count increased by 9.3% over the same period.

Chart 17: Credit Derivatives Traded Notional By Product (US\$ trillions)



Source: DTCC and Bloomberg SDRs

Chart 18: Credit Derivatives Trade Count By Product (thousands)



Source: DTCC and Bloomberg SDRs

Credit Derivatives Average Daily Traded Notional, Trade Count and Trade Size

Average daily traded notional of CDX HY and CDX IG increased by 2.8% and 9.7%, respectively, between the fourth quarter of 2019 and the fourth quarter of 2020, and totaled \$4.8 billion and \$10.8 billion. Average daily trade count of CDX HY grew by 8.2% and totaled 240, while CDX IG rose by 18.3% and totaled 222. Average trade size of CDX HY and CDX IG was \$19.3 million and \$48.0 million, respectively (see Table 2).

iTraxx Europe average daily traded notional increased by 2.9% to \$4.7 billion and average daily trade count rose by 8.2% to 99. iTraxx Europe average trade size dropped by 4.4% to \$47.0 million in the fourth quarter of 2020 compared to \$49.1 million in the fourth quarter of 2019.

Table 2: Credit Derivatives Average Daily Traded Notional, Daily Trade Count and Trade Size

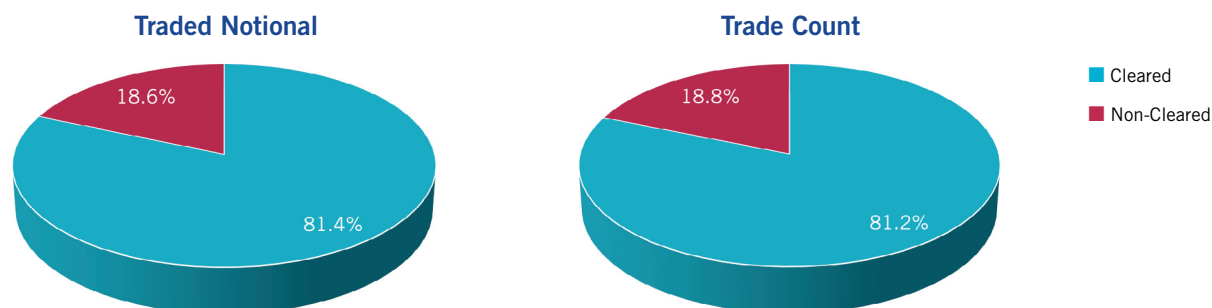
	Average Daily Traded Notional (US\$ billions)			Average Daily Trade Count			Average Trade Size (US\$ millions)		
	CDX HY	CDX IG	iTraxx Europe	CDX HY	CDX IG	iTraxx Europe	CDX HY	CDX IG	iTraxx Europe
2020 Q4	4.8	10.8	4.7	240	222	99	19.3	48.0	47.0
2019 Q4	4.7	9.8	4.6	222	187	91	20.2	51.6	49.1
2020 Q4 vs. 2019 Q4	2.8%	9.7%	2.9%	8.2%	18.3%	8.2%	-4.1%	-6.9%	-4.4%
Full Year 2020	6.7	15.6	6.6	315	298	132	20.0	49.9	47.5
Full Year 2019	5.6	12.5	5.9	266	229	121	20.1	53.3	47.0
Full Year 2020 vs. Full Year 2019	19.9%	24.3%	13.2%	18.3%	30.1%	8.9%	-0.2%	-6.4%	1.1%

Source: DTCC and Bloomberg SDRs

Credit Derivatives Central Clearing

Cleared credit derivatives transactions represented 81.4% of traded notional and 81.2% of trade count in the fourth quarter of 2020 (see Chart 19)¹³. Traded notional and trade count of cleared credit derivatives transactions was \$1.4 trillion and 43.6 thousand, respectively.

Chart 19: Credit Derivatives Cleared Traded Notional and Trade Count



Source: DTCC and Bloomberg SDRs

¹³ These rates were estimated. Please see Footnote 6

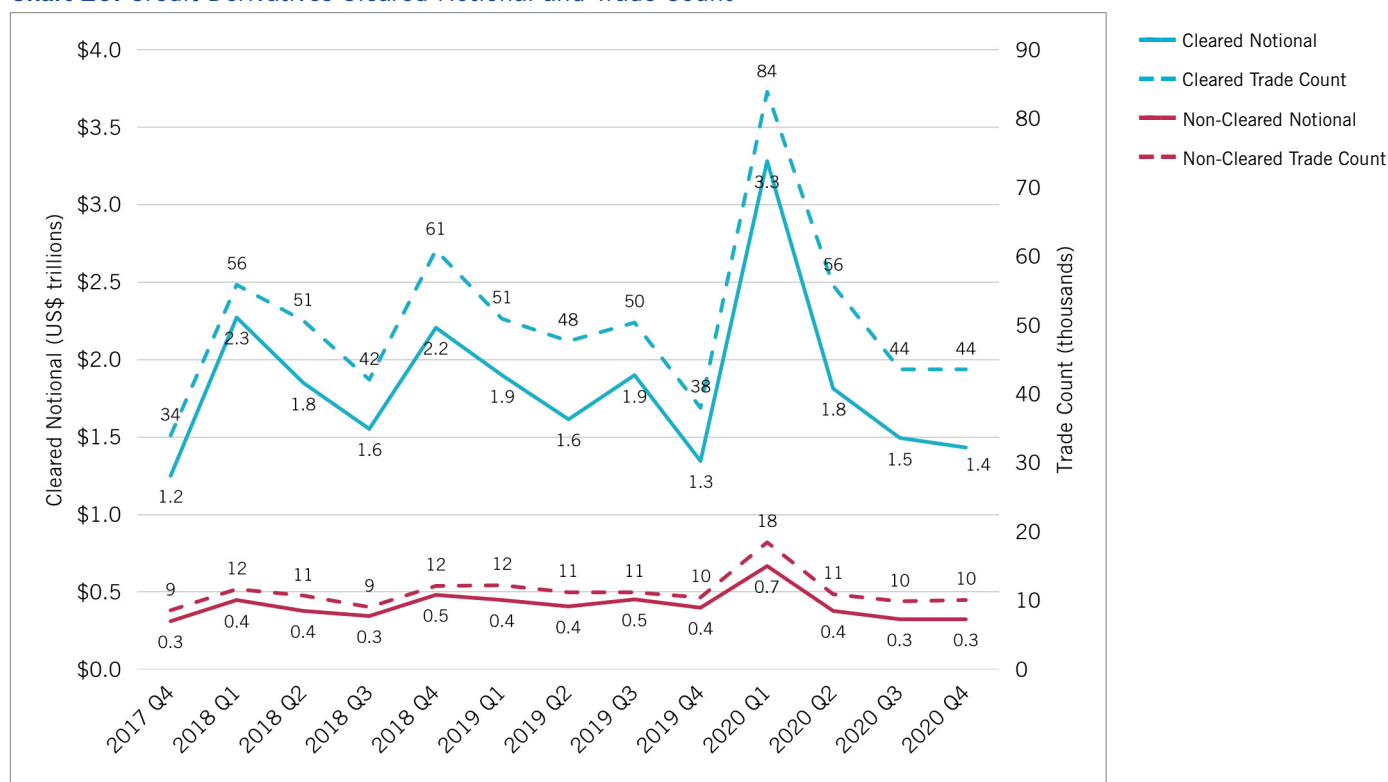
Credit derivatives cleared notional increased by 6.2% to \$1.4 trillion in the fourth quarter of 2020 from \$1.3 trillion in the fourth quarter of 2019. Cleared trade count rose by 14.6% to 43.6 thousand from 38.0 thousand over the same period (see Chart 20).

Non-cleared notional decreased by 18.5% to \$399.8 billion in the fourth quarter of 2020 from \$326.0 billion in the fourth quarter of 2019. Non-cleared trade count fell by 3.3% over the same period.

In the full year 2020, credit derivatives cleared notional increased by 18.7% to \$8.0 trillion from \$6.8 trillion in the full year 2019. Cleared trade count grew by 21.2% to 226.7 thousand from 187.0 thousand over the same period.

Non-cleared notional fell to \$1.7 trillion in the full year 2020, a 0.8% decrease compared to \$1.7 trillion in the full year 2019. Non-cleared trade count rose by 9.5% to 49.4 thousand from 45.1 thousand over the same period.

Chart 20: Credit Derivatives Cleared Notional and Trade Count

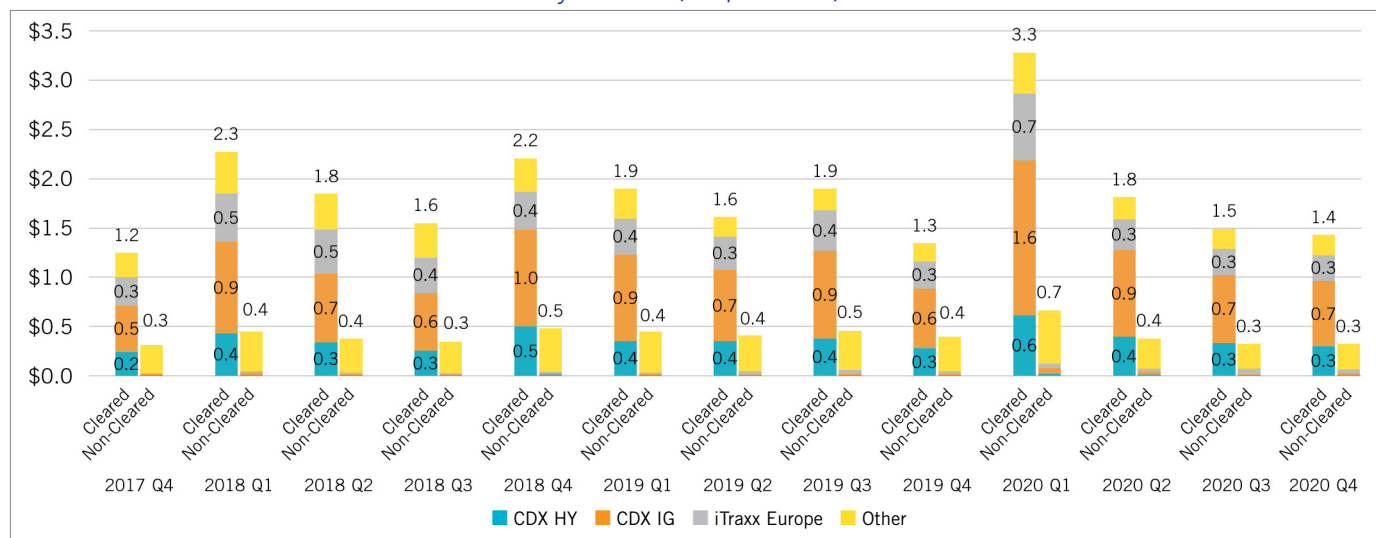


Source: DTCC and Bloomberg SDRs

In the fourth quarter of 2020, \$298.6 billion (97.1%) of CDX HY and \$662.0 billion (97.6%) of CDX IG traded notional was cleared, while \$8.9 billion and \$16.1 billion, respectively, was non-cleared. Cleared notional of iTraxx Europe totaled \$263.3 billion (87.0%) in the fourth quarter of 2020, while non-cleared notional was \$39.3 billion. \$207.2 billion (44.2%) of other credit derivatives traded notional was cleared and \$261.7 billion was non-cleared (see Chart 21).

In the full year 2020, \$1.6 trillion (96.9%) of CDX HY and \$3.8 trillion (97.4%) of CDX IG traded notional was cleared and \$53.0 billion and \$102.4 billion, respectively, was non-cleared.

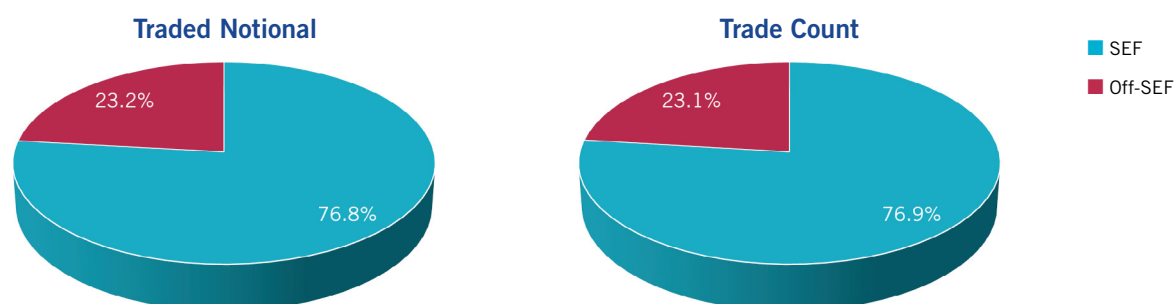
Cleared notional of iTraxx Europe totaled \$1.5 trillion (89.3%) in the full year 2020. \$1.1 trillion (43.9%) of other credit derivatives traded notional was cleared and \$1.4 trillion was non-cleared.

Chart 21: Credit Derivatives Cleared Notional by Product (US\$ trillions)

Source: DTCC and Bloomberg SDRs

Credit Derivatives Trading Venue

SEF-traded credit derivatives represented 76.8% of total traded notional and 76.9% of total trade count in the fourth quarter of 2020 (see Chart 22)¹⁴. Total credit derivatives traded notional executed on SEFs was \$1.3 trillion, while \$0.4 trillion was executed off-SEF. 41.3 thousand transactions were executed on SEFs and 12.4 thousand transactions were off-SEF.

Chart 22: SEF and Off-SEF Credit Derivatives Traded Notional and Trade Count

Source: DTCC and Bloomberg SDRs

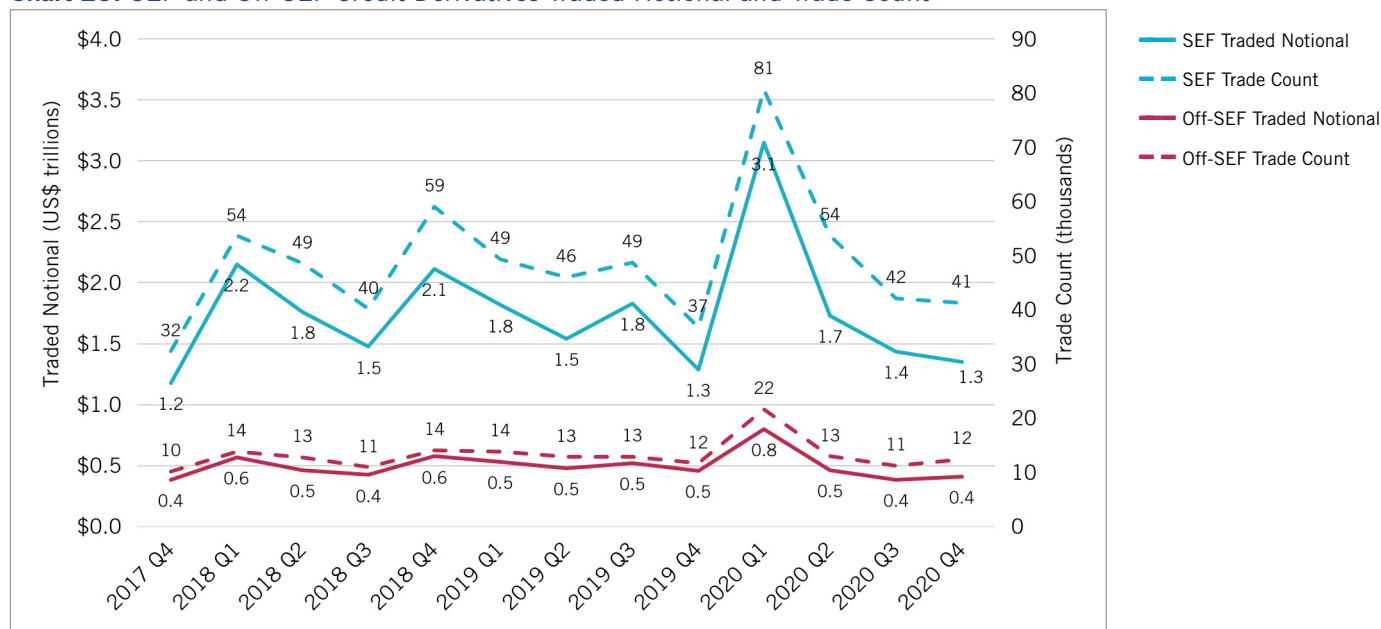
Credit derivatives traded notional executed on SEFs increased by 4.8% to \$1.3 trillion in the fourth quarter of 2020 from \$1.3 trillion in the fourth quarter of 2019. The number of trades executed on SEFs increased by 12.2% over the same period (see Chart 23).

Credit derivatives traded notional executed off-SEF decreased by 11.1% to \$408.1 billion in the fourth quarter of 2020 from \$459.1 billion in the fourth quarter of 2019. The number of off-SEF transactions increased by 6.2% over the same period.

In the full year 2020, traded notional executed on SEFs grew by 18.3% to \$7.7 trillion from \$6.5 trillion in the full year 2019. Trade count rose by 20.4% to 217.8 thousand from 180.9 thousand over the same period.

Credit derivatives traded notional executed off-SEF increased by 3.2% to \$2.1 trillion in the full year 2020. The number of off-SEF transactions increased by 13.8% over the same period.

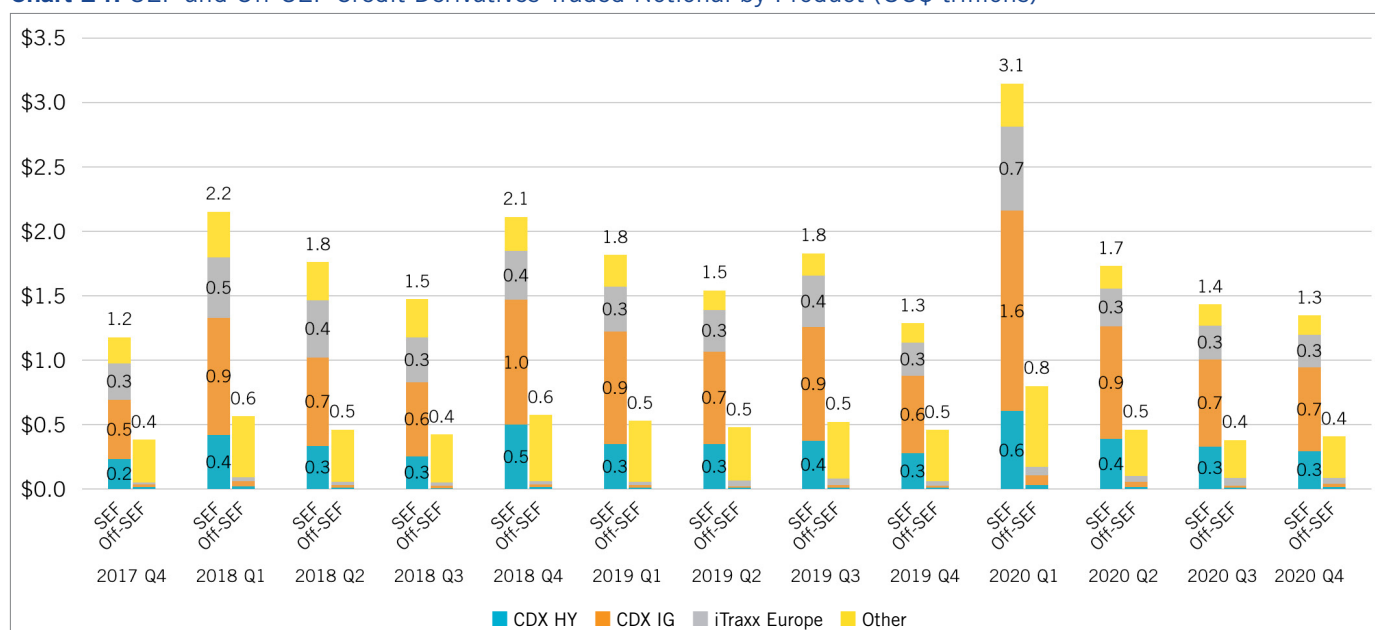
¹⁴ These rates were estimated. Please see Footnote 7

Chart 23: SEF and Off-SEF Credit Derivatives Traded Notional and Trade Count

Source: DTCC and Bloomberg SDRs

In the fourth quarter of 2020, \$293.2 billion (95.4%) of CDX HY and \$652.7 billion (96.2%) of CDX IG notional was traded on SEFs, and \$14.2 billion and \$25.5 billion, respectively, was executed off-SEF. \$253.6 billion (83.8%) of iTraxx Europe traded notional was executed on SEFs and \$49.1 billion occurred off-SEF. Only \$149.6 billion (31.9%) of traded notional for other credit derivatives was executed on SEFs and \$319.2 billion was traded off-SEF (see Chart 24).

In the full year 2020, \$1.6 trillion (95.7%) of CDX HY, \$3.8 trillion (96.0%) of CDX IG and \$1.5 trillion (87.0%) of iTraxx Europe notional was traded on SEFs. \$818.7 billion (33.8%) of other credit derivatives traded notional was executed on SEFs and \$1.6 trillion was traded off-SEF.

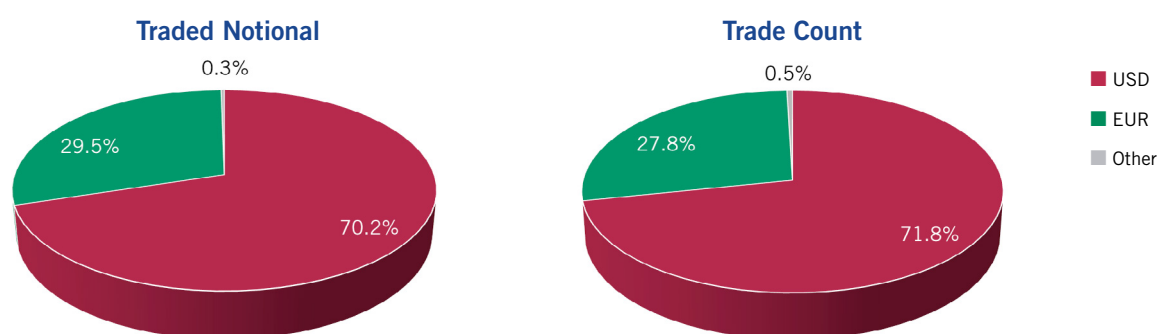
Chart 24: SEF and Off-SEF Credit Derivatives Traded Notional by Product (US\$ trillions)

Source: DTCC and Bloomberg SDRs

Credit Derivatives by Currency

Credit derivatives contracts denominated in US dollars represented 70.2% and 71.8% of traded notional and trade count, respectively, in the fourth quarter of 2020. Euro-denominated transactions accounted for 29.5% and 27.8% of traded notional and trade count, respectively (see Chart 25).

Chart 25: Credit Derivatives Traded Notional and Trade Count by Currency

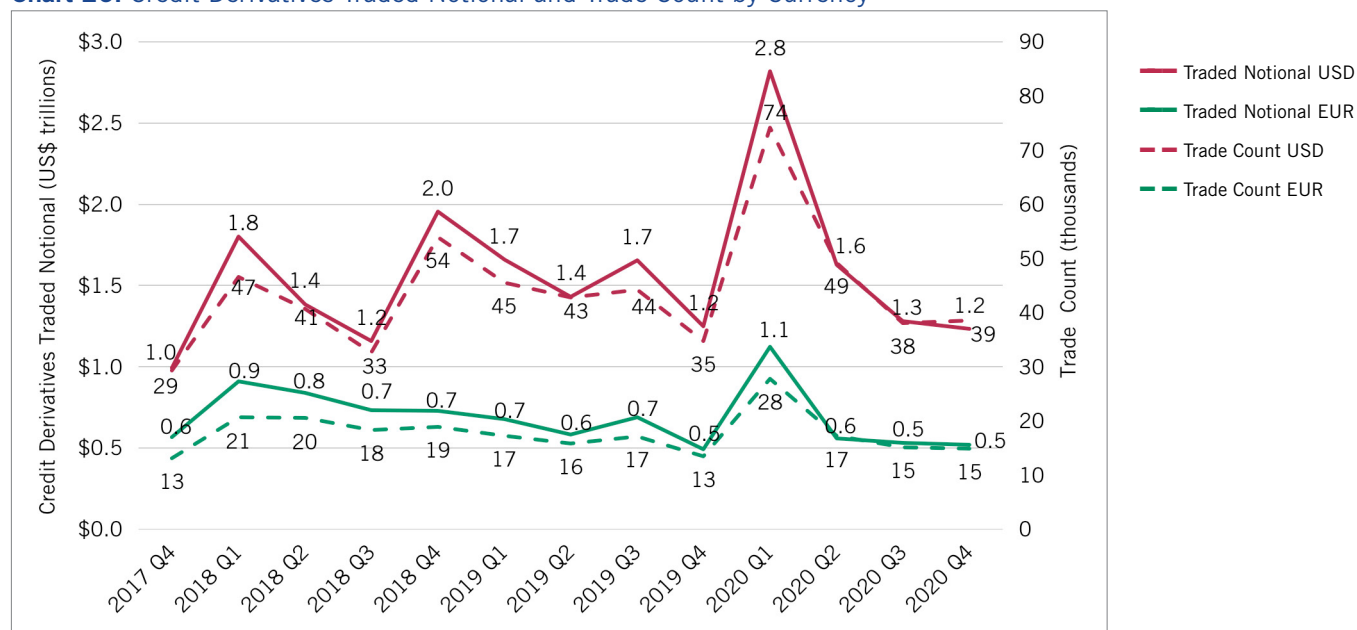


Source: DTCC and Bloomberg SDRs

US dollar-denominated traded notional decreased by 1.3% to \$1.2 trillion in the fourth quarter of 2020 from \$1.2 trillion in the fourth quarter of 2019. Euro-denominated traded notional increased by 5.6% to \$519.1 billion in the fourth quarter of 2020 compared to the fourth quarter of 2019. Trade count rose by 10.9% for US dollar-denominated trades and 11.0% for euro-denominated trades over the same period (see Chart 26).

In the full year 2020, US dollar-denominated traded notional increased by 16.1% to \$7.0 trillion from \$6.0 trillion in the full year 2019. Euro-denominated traded notional increased by 12.1% to \$2.7 trillion from \$2.4 trillion over the same period. Trade count rose by 19.6% and 18.0% for US dollar- and euro-denominated transactions, respectively, in the full year 2020 versus the full year 2019. For other currencies, traded notional and trade count declined by 28.5% and 14.3%, respectively, over the same period.

Chart 26: Credit Derivatives Traded Notional and Trade Count by Currency



Source: DTCC and Bloomberg SDRs



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- ***Evolution of OTC Derivatives Markets Since the Financial Crisis, January 2021***

<https://www.isda.org/a/8jjTE/Evolution-of-OTC-Derivatives-Markets-Since-the-Financial-Crisis.pdf>

- ***Overview of ESG-related Derivatives Products and Transactions, January 2021***

<https://www.isda.org/a/qRpTE/Overview-of-ESG-related-Derivatives-Products-and-Transactions.pdf>

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