

# SwapsInfo Fourth Quarter 2016 Review

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The ISDA SwapsInfo Quarterly Review provides analysis of interest rate derivatives (IRD) and credit default swap (CDS) index 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.

Interest rate derivatives and CDS index notional volume and trade count data is taken from the ISDA SwapsInfo website ([swapsinfo.org](http://swapsinfo.org)), using information from the Depository Trust & Clearing Corporation and Bloomberg swap data repositories (SDRs).

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## KEY HIGHLIGHTS FOR FULL-YEAR AND FOURTH QUARTER OF 2016

IRD notional volume and trade count grew in 2016 versus the previous year. Notional volume rose to \$166.2 trillion, marking a 16.9% increase over 2015, when volume totaled \$142.3 trillion. IRD trade count also grew between 2016 and the previous year, rising by 4.5%, from 1,056,020 to 1,103,465 transactions. During the last quarter of 2016, IRD notional volume figures rose by 15.0%, from \$34.8 trillion to \$40.0 trillion, versus the same quarter in 2015. Trade count grew by 13.7%, increasing from 247,864 to 281,821, versus the fourth quarter of 2015.

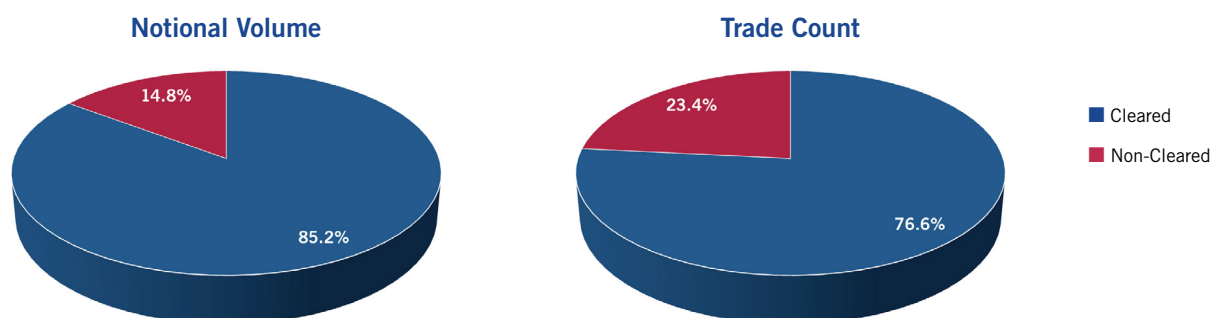
- A key trend over the past year was the increase in the amount of cleared IRD volume and trade count. Cleared transactions represented 85.2% of total notional volume and 76.6% of trade count in the fourth quarter. Cleared volumes ticked higher in 2016 versus the previous year, growing by 25.2%, while trade count grew by 14.1% compared with 2015. Cleared volume also rose in the fourth quarter of 2016, increasing by 22.4%, versus the final quarter of 2015. Over the same period, cleared trade count grew by 22.3%. Conversely, non-cleared volume and trade count fell by all respective measures.
  - Growth in SEF-traded IRD was evident in 2016. However, the proportion of SEF-traded volume remained fairly constant, accounting for slightly more than half the market. Notional volume transacted on a SEF, as well as volume transacted away from an electronic venue, increased in 2016 over the previous year. The former grew by 11.8%, while the latter expanded by 23.7% versus 2015. On a quarterly basis, SEF volume grew by 6.9%, while off-SEF volume increased by 26.2% compared to the final quarter of 2015.
  - More frequent IRD trading on SEFs was seen in 2016 compared to 2015, with the number of SEF transactions rising by 9.1%. During this time, off-SEF trade count was mostly unchanged. However, both SEF and off-SEF trade count increased on a quarterly basis, growing by 16.8% and 10.2%, respectively, in the final three months of 2016 versus the same period in 2015.
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CDS index notional volume and trade count also increased in 2016 versus 2015, albeit at a slower pace than IRD. Notional volume increased by 1.2%, rising from \$7.1 trillion to \$7.2 trillion. Trade count totaled 232,410 over the year, marking an increase of 5.3% from 220,653 trades in 2015. Declines were seen across both measures on a quarterly basis. CDS index notional volume fell by 9.7% in the fourth quarter of 2016, from \$1.7 trillion to \$1.5 trillion, versus the final three months of 2015. Likewise, trade count also contracted, with the number of trades falling from 55,269 to 48,577 over the same period.

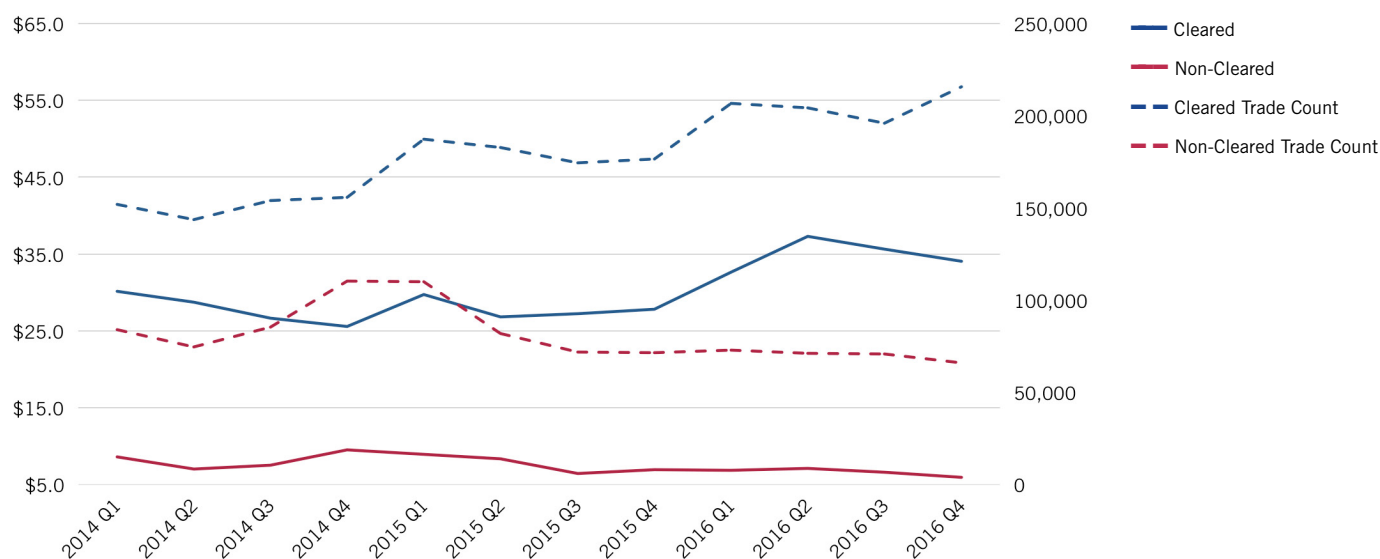
- A large percentage of CDS index volume and trade count was cleared in the final quarter of 2016: 78.3% of notional volume and 81.3% of transactions. Cleared notional volume grew by 3.8% and trade count increased by 6.7% from 2015 to 2016. On a quarterly basis, these measures were lower. Cleared volume declined by 10.4% versus the final quarter of 2015, while trade count fell by 9.0% over the same period.
- A greater percentage of CDS index volume, roughly three-quarters, was transacted on a SEF compared to IRD. SEF-traded notional volume increased in 2016 versus the previous year, growing by 6.0%. During this time, off-SEF transactions dwindled lower, with volume falling by 11.3%. SEF volume decreased in the fourth quarter of 2016 versus the same period in 2015, falling by 13.1%, while off-SEF notionals rose by 1.4%.
- Changes in SEF trade count tracked notional volume trends, with SEF transactions increasing in 2016 by 8.0% versus the previous year. Off-SEF transactions were 3.1% lower at this time. During the final quarter of 2016, the number of transactions declined from the comparative quarter of 2015, regardless of execution venue. The number of SEF-traded contracts decreased by 13.2%, while off-SEF trade count was 8.2% lower.

## IRD STATISTICS: CENTRAL CLEARING DASHBOARD

The percentage of IRD notional volume and trade count cleared during the last quarter of 2016 is shown in the pie charts below. 85.2%, or \$34.1 trillion of \$40.0 trillion transacted in the quarter, was centrally cleared, representing 76.6% of trades (215,825 of 281,821).



### Central Clearing: IRD Notional Volume (US\$ trillions) and Trade Count (thousands) 2014Q1 – 2016Q4















Source: DTCC and Bloomberg SDRs

**Notional Volume:** Cleared volumes (solid blue line, main axis) ticked higher in 2016 versus the previous year, growing by 25.2%, from \$111.6 trillion to \$139.7 trillion. Non-cleared volume (solid red line, main axis) fell by 13.4% over the same period, from \$30.7 trillion to \$26.6 trillion. Cleared volume also rose in the fourth quarter of 2016 versus the last quarter of 2015, increasing by 22.4%, from \$27.8 trillion to \$34.1 trillion. Non-cleared volume fell by 14.6%, from \$6.9 trillion to \$5.9 trillion, over the same period.

**Trade Count:** Changes in trade count mimicked notional volume trends, with cleared trade count (dashed blue line, secondary axis) increasing in 2016. The measure grew by 14.1%, from 720,874 to 822,765, versus 2015. During this time, non-cleared trade count (dashed red line, secondary axis) fell by 16.2%, from 335,146 to 280,700. Cleared trade count also increased on a quarterly basis, rising by 22.3%, from 176,432 to 215,825. Non-cleared trade count fell by 7.6% over the same period, from 71,432 to 65,996.

## IRD STATISTICS: CENTRAL CLEARING TRENDS

Changes in cleared and non-cleared average daily volume, trade count and trade size statistics are compared in the table below on an annual and quarterly basis.

Quarterly Change		Annual Change		Cleared Statistics
	24.3%		25.2%	Average daily IRD cleared notional volume increased on an annual and quarterly basis. Comparing average daily cleared IRD volume in 2016 to the previous year reveals a 25.2% increase, from \$429.2 billion to \$537.1 billion. Average daily cleared notional volume increased over the last three months of 2016 by 24.3%, from \$421.6 billion to \$524.1 billion, versus the fourth quarter of 2015.
	24.2%		14.1%	The number of centrally cleared IRD contracts increased in line with notional volume. The average daily cleared IRD trade count transacted in 2016 was 3,164, marking a 14.1% increase versus the 2015 average of 2,773. During the three months ending December 2016, trade count averaged 3,320 transactions per day. This figure was 24.2% higher compared to the last quarter of 2015, when the average was roughly 2,673.
	3.5%		12.1%	The average trade size of cleared transactions has also continued to increase. On an annual basis, average IRD cleared transaction size has grown by 12.1%, from \$143.7 million to \$161.1 million. Likewise, average trade size has grown by 3.5%, from \$143.6 million in the fourth quarter of 2015 to \$148.7 million in the last three months of 2016.
Non-Cleared Statistics				
	-13.2%		-13.4%	There has been a consistent downshift in non-cleared IRD average daily notional volume. In 2016, this average was 13.4% lower than the previous year, falling from \$117.5 billion to \$101.8 billion. During the final three months of 2016, average daily non-cleared IRD notional volume fell by 13.2%, from \$105.2 billion to \$91.2 billion per day, versus the comparable quarter in 2015.
	-6.2%		-16.3%	Non-cleared trade counts have also drifted lower. The average number of non-cleared daily transactions fell by 16.3% over the year, from 1,284 to 1,075. Trade count fell by 6.2%, from 1,082 to 1,015 trades per day, during the fourth quarter versus the final quarter of 2015.
	-7.5%		1.8%	Non-cleared IRD trade size was modestly larger in 2016 versus 2015. Average daily transactions were 1.8% larger in 2016, increasing from \$92.5 million to \$94.2 million. On a quarterly basis, average trade size decreased by 7.5%, falling from \$95.7 million in the fourth quarter of 2015 to \$88.5 million in the same period a year later.

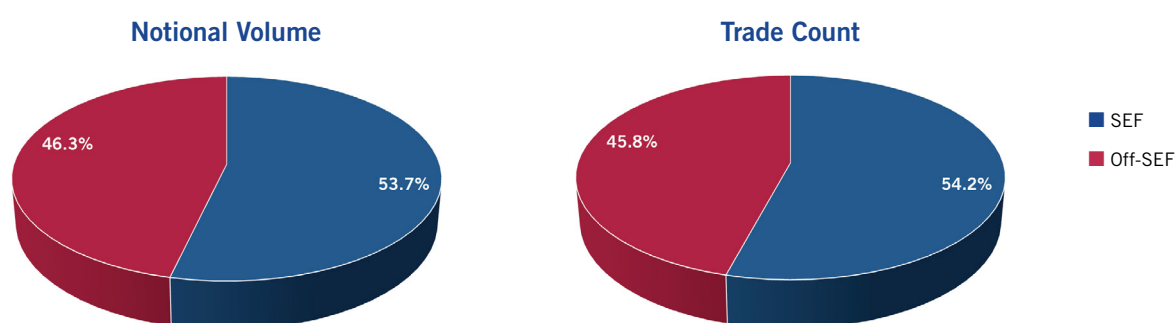
## IRD STATISTICS: CENTRAL CLEARING DATA

Average Daily Notional Volume, Trade Count and Trade Size Quarterly Statistics

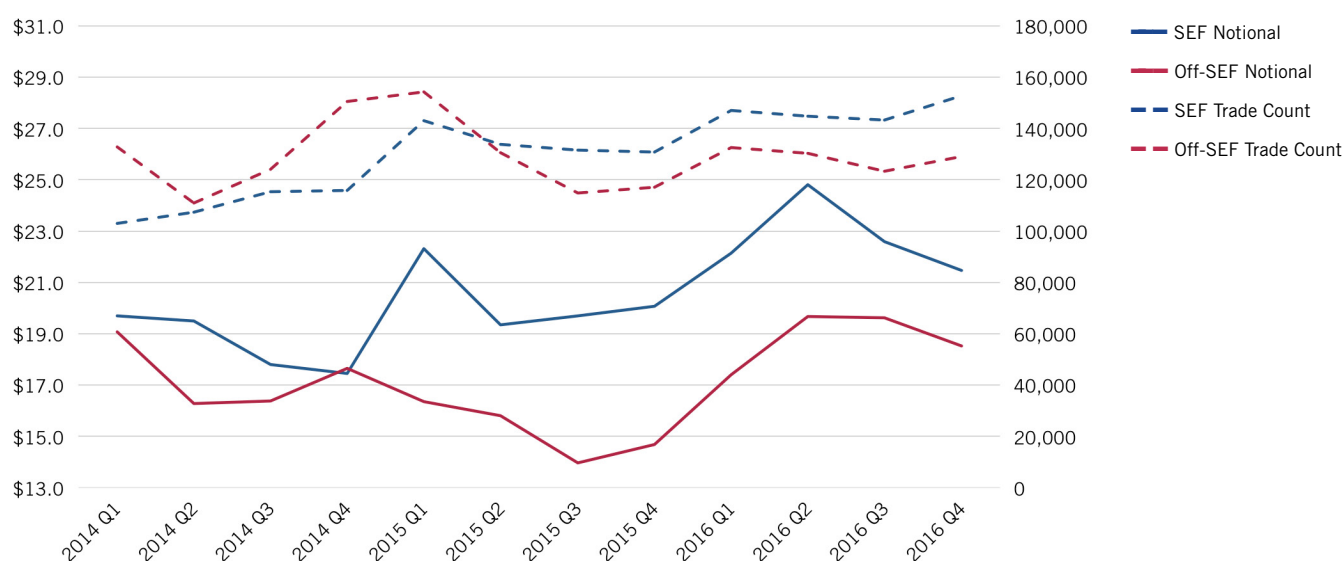
			Total	Cleared	Non-Cleared	
Average Daily Notional Volume (\$US billions)	2014	2014 Q1	605,611,751,521	478,723,706,003	134,368,103,424	
		2014 Q2	550,427,249,407	442,012,993,342	108,414,256,066	
		2014 Q3	517,893,964,763	403,742,220,994	114,151,743,769	
		2014 Q4	531,643,144,149	387,436,795,920	144,206,348,229	
	2015	2015 Q1	604,139,316,795	472,075,366,224	139,440,128,169	
		2015 Q2	540,892,736,334	412,168,734,114	128,724,002,220	
		2015 Q3	510,048,294,383	412,635,626,216	97,412,668,167	
		2015 Q4	526,727,736,726	421,574,115,403	105,153,621,323	
	2016	2016 Q1	608,407,328,635	510,084,775,422	106,170,011,297	
		2016 Q2	684,213,607,401	574,389,160,739	109,824,446,662	
		2016 Q3	639,534,365,771	539,582,299,495	99,952,066,275	
		2016 Q4	615,285,047,242	524,059,446,225	91,225,601,017	
	Average Daily Trade Count	2014	2014 Q1	3,684	2,412	1,310
			2014 Q2	3,360	2,210	1,150
			2014 Q3	3,628	2,335	1,293
			2014 Q4	4,035	2,361	1,674
2015		2015 Q1	4,645	2,975	1,717	
		2015 Q2	4,070	2,811	1,259	
		2015 Q3	3,732	2,642	1,091	
		2015 Q4	3,756	2,673	1,082	
2016		2016 Q1	4,302	3,231	1,120	
		2016 Q2	4,236	3,140	1,096	
		2016 Q3	4,041	2,970	1,071	
		2016 Q4	4,336	3,320	1,015	
Average Trade Size (\$US millions)		2014	2014 Q1	152,777,578	183,424,007	100,761,610
			2014 Q2	152,516,422	182,203,418	94,725,823
			2014 Q3	139,413,303	165,727,397	90,673,610
			2014 Q4	126,750,870	152,909,744	85,392,532
	2015	2015 Q1	123,587,015	147,535,479	81,770,426	
		2015 Q2	128,241,277	137,018,801	103,057,806	
		2015 Q3	130,844,654	146,846,739	89,427,728	
		2015 Q4	130,562,270	143,643,840	95,669,375	
	2016	2016 Q1	134,591,717	151,031,649	93,568,084	
		2016 Q2	152,540,471	169,873,799	99,740,386	
		2016 Q3	153,566,099	174,531,663	94,970,683	
		2016 Q4	134,286,780	148,707,022	88,500,963	

## IRD STATISTICS: TRADING VENUE DASHBOARD

Although total IRD notional volume and the percentage of centrally cleared transactions have increased, the proportion of swaps that trade on a SEF has remained mostly unchanged. Slightly more than half of notional volume and trade count is currently transacted on an electronic venue. During the fourth quarter of 2016, 53.7% of volume, or \$21.5 trillion of \$40.0 trillion, and 54.2% of trade count, representing 152,768 of 281,821 transactions, was executed on a SEF.



### Trading Venue: IRD Notional Volume (US\$ trillions) and Trade Count (thousands) 2014Q1 – 2016Q4















Source: DTCC and Bloomberg SDRs

**Notional Volume:** SEF-traded volumes (solid blue line, main axis) ticked higher in 2016, growing by 11.8%, from \$81.4 trillion to \$91.0 trillion in the previous year. Off-SEF volume (solid red line, main axis) also rose, increasing by 23.7%, from \$60.8 trillion to \$75.2 trillion, during this time. SEF volume was also larger in the fourth quarter of 2016, increasing by 6.9%, from \$20.1 trillion to \$21.5 trillion, versus the final quarter of 2015. Over the same period, off-SEF volume rose by 26.2%, from \$14.7 trillion to \$18.5 trillion.

**Trade Count:** Changes in trade count mostly followed notional volume trends, with SEF transactions (dashed blue line, secondary axis) increasing in 2016 by 9.1%, from 539,049 to 588,064, versus 2015. During this time, off-SEF trade count (dashed red line, secondary axis) fell modestly by 0.3%, from 516,971 to 515,401. SEF transactions also increased on a quarterly basis, growing by 16.8%, from 130,780 to 152,768. Off-SEF trade count rose by 10.2%, from 117,084 in the fourth quarter of 2015 to 129,053 in the final three months of 2016.

## IRD STATISTICS: TRADING VENUE TRENDS

Changes in SEF and off-SEF average daily volume and trade count are compared in the table below on an annual and quarterly basis.

Quarterly Change		Annual Change		SEF Statistics
	8.6%		11.8%	SEF-traded average daily notional volume has grown over the past year. In 2016, notional volume of roughly \$350.0 billion traded each day, an increase of 11.8% over the previous year, when average daily IRD SEF-traded volume was approximately \$313.2 billion. During the final quarter of the year, average daily SEF-traded volume grew by 8.6%, from \$304.3 billion to \$330.3 billion, relative to the last quarter of 2015.
	18.6%		9.1%	The number of contracts transacted on a SEF also increased in 2016, growing by 9.1%, from 2,073 to 2,262 trades per day, versus the previous year. Higher growth was observed when comparing the final quarters of 2016 and 2015, with the average number of trades per day on a SEF increasing by 18.6%, from 1,982 to 2,350.
	-6.0%		3.7%	The average SEF transaction size modestly increased over the past year. Average trade size rose by 3.7%, from \$133.9 million to \$138.8 million, between 2015 and 2016. During the fourth quarter of 2016, however, average trade size fell by 6.0%, from \$134.8 billion to \$126.7 billion, versus the final quarter of 2015.
Off-SEF Statistics				
	28.1%		23.7%	While off-SEF volume remains lower than SEF volume, average daily off-SEF notional volume increased more than the volume traded on a SEF during 2016. Average daily non-SEF volume rose by 23.7% on an annual basis, from \$233.0 billion to \$288.2 billion. Growth was even higher on a quarterly basis, with off-SEF volume increasing by 28.1% between the fourth quarter of 2015 and the same period a year later, from \$222.4 billion to \$285.0 billion.
	11.9%		-0.3%	Off-SEF trade counts were mostly unchanged compared to 2015. However, the average number of daily transactions shifted higher during the fourth quarter. Year-over-year, average off-SEF IRD trade count fell by 0.3%, from 1,981 to 1,975 trades per day. During the final three months of 2016, average daily trade count increased by 11.9%, from 1,774 to 1,985, versus the comparable quarter in 2015.
	14.2%		22.9%	Average off-SEF trade sizes were larger than transactions occurring on a SEF in 2016, growing by 22.9%, from \$118.0 million in 2015 to \$145.0 million last year. On a quarterly basis, average trade size rose by 14.2%, from \$122.1 million in the fourth quarter of 2015 to \$139.5 million in the same period in 2016.



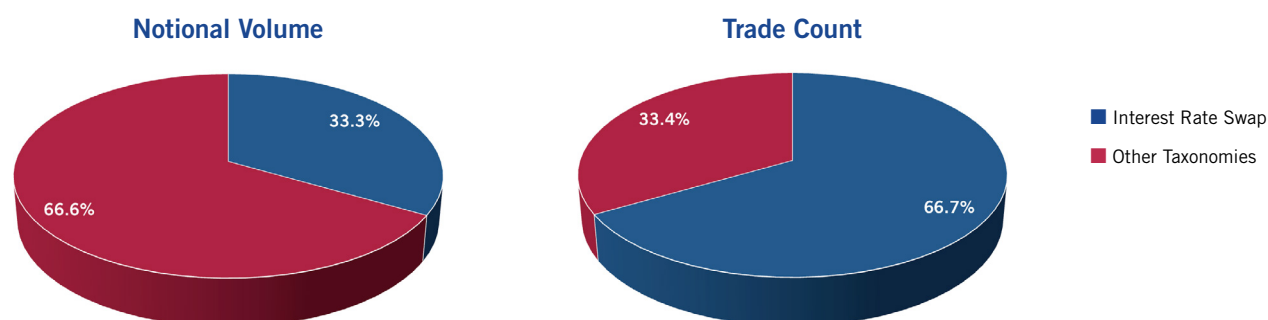
## IRD STATISTICS: TRADING VENUE DATA

Average Daily Notional Volume, Trade Count and Trade Size Quarterly Statistics

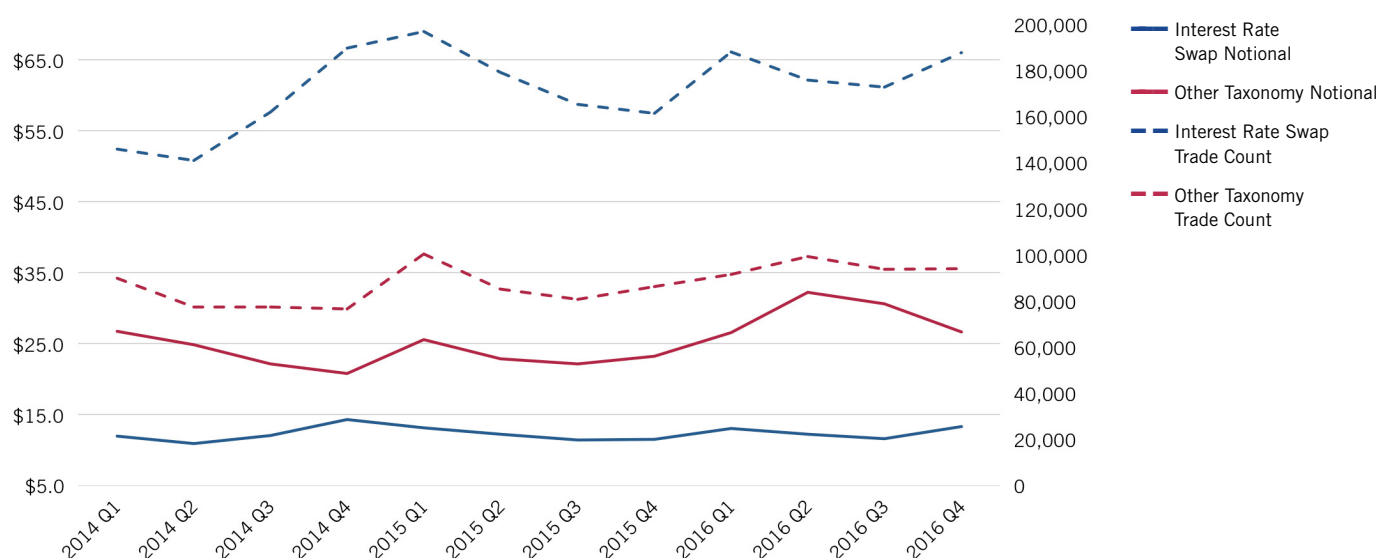
			Total	SEF	Off-SEF	
Average Daily Notional Volume (\$US billions)	2014	2014 Q1	605,611,751,521	312,484,598,672	298,009,724,703	
		2014 Q2	550,427,249,407	299,810,132,829	250,617,116,578	
		2014 Q3	517,893,964,763	269,753,339,203	248,140,625,560	
		2014 Q4	531,643,144,149	264,280,178,098	267,362,966,051	
	2015	2015 Q1	604,139,316,795	354,141,955,300	255,530,829,546	
		2015 Q2	540,892,736,334	297,645,161,158	243,247,575,176	
		2015 Q3	510,048,294,383	298,456,241,038	211,592,053,345	
		2015 Q4	526,727,736,726	304,287,471,171	222,440,265,555	
	2016	2016 Q1	608,407,328,635	345,875,827,042	267,852,668,163	
		2016 Q2	684,213,607,401	381,749,224,273	302,464,383,128	
		2016 Q3	639,534,365,771	342,220,959,808	297,313,405,963	
		2016 Q4	615,285,047,242	330,334,818,171	284,950,229,071	
	Average Daily Trade Count	2014	2014 Q1	3,684	1,635	2,075
			2014 Q2	3,360	1,653	1,707
			2014 Q3	3,628	1,749	1,879
			2014 Q4	4,035	1,755	2,280
2015		2015 Q1	4,645	2,270	2,411	
		2015 Q2	4,070	2,059	2,011	
		2015 Q3	3,732	1,992	1,740	
		2015 Q4	3,756	1,982	1,774	
2016		2016 Q1	4,302	2,297	2,039	
		2016 Q2	4,236	2,230	2,006	
		2016 Q3	4,041	2,172	1,869	
		2016 Q4	4,336	2,350	1,985	
Average Trade Size (\$US millions)		2014	2014 Q1	152,777,578	164,580,423	140,682,308
			2014 Q2	152,516,422	156,310,096	143,373,541
			2014 Q3	139,413,303	140,236,539	135,563,525
			2014 Q4	126,750,870	132,819,001	117,674,773
	2015	2015 Q1	123,587,015	137,602,237	106,899,084	
		2015 Q2	128,241,277	128,422,659	121,150,736	
		2015 Q3	130,844,654	134,762,771	121,457,268	
		2015 Q4	130,562,270	134,796,929	122,128,094	
	2016	2016 Q1	134,591,717	136,898,500	130,209,189	
		2016 Q2	152,540,471	149,742,786	149,211,392	
		2016 Q3	153,566,099	141,866,199	160,976,634	
		2016 Q4	134,286,780	126,706,658	139,503,516	

## IRD STATISTICS: TAXONOMY DASHBOARD

Single currency fixed-to-floating interest rate swap (“interest rate swap”) volume accounted for roughly one-third of IRD notional volume, or \$13.3 trillion of \$40.0 trillion, during the fourth quarter of 2016. At this time, trade count represented 66.7% of the total, or 187,803 of 281,821 transactions.



### Taxonomy: IRD Notional Volume (US\$ trillions) and Trade Count (thousands) 2014Q1 – 2016Q4















Source: DTCC and Bloomberg SDRs

**Notional Volume:** Interest rate swap volume (solid blue line, main axis) rose modestly in 2016, increasing by 3.6%, from \$48.4 trillion in 2015 to \$51.2 trillion. Over the year, volume linked to other taxonomies (solid red line, main axis) grew by 23.7%, from \$93.8 trillion to \$116.1 trillion. On a quarterly basis, interest rate swap volume grew by 15.4%, from \$11.6 trillion in the fourth quarter of 2015 to \$13.3 trillion in the final three months of 2016. Volume in other taxonomies increased by 14.9% over the same period, from \$23.2 trillion to \$26.7 trillion.

**Trade Count:** The number of interest rate swap transactions occurring between 2015 and 2016 increased by 3.1%, from 702,911 to 724,540 (blue dashed line, secondary axis). Other taxonomies (red dashed line, secondary axis) also saw growth in trade count over the year, increasing by 7.3%, from 353,109 to 378,925. During the last quarter of 2016, interest rate swap trade count grew by 16.3%, from 161,438 to 187,803, versus the final three months of 2015. Transactions involving other taxonomies rose by 8.8%, from 86,426 to 94,018 trades, over the same period.

## IRD STATISTICS: TAXONOMY TRENDS

Changes in interest rate swap and other taxonomy average daily volume and trade count are compared in the table below on an annual and quarterly basis.

Quarterly Change		Annual Change		Interest Rate Swap Statistics
	17.2%		4.0%	Average daily interest rate swap notional volume has grown over the past year. From 2015 to 2016, notionals increased by 4.0%, from \$185.5 billion to \$193.0 billion. Between the fourth quarter of 2015 and the final three months of 2016, average daily notional volume rose by 17.2%, from \$175.1 billion to \$205.2 billion.
	18.1%		3.5%	The average number of interest rate swap contracts transacted each day also increased in 2016, growing by 3.5%, from 2,693 to 2,787, versus the previous year. Double-digit growth occurred between the fourth quarter of 2015 and the final quarter of 2016, with the average number of daily transactions rising by 18.1%, from 2,446 to 2,889.
	-0.7%		0.7%	As average daily volume and trade count rose, trade size remained mostly unchanged. The average interest rate swap trade size transacted in 2016 was 0.7% larger than in 2015, increasing from \$68.4 million to \$68.9 million. On a quarterly basis, trade size declined by 0.7%, from \$70.4 million in the fourth quarter of 2015 to \$70.0 million in the final quarter of 2016.
Other Taxonomy Statistics				
	16.6%		23.7%	Average daily volume growth in other taxonomies outpaced interest rate swaps in 2016. Volume grew by 23.7%, from \$359.6 billion to \$444.7 billion, on an annual basis for the group. During the fourth quarter of 2016, average daily notional volume increased by 16.6%, from \$351.6 billion to \$410.1 billion, versus the comparative quarter in 2015.
	10.5%		7.3%	Average trade counts of other taxonomies rose by 7.3% in 2016 versus the previous year, growing from 1,353 to 1,452. Comparing quarter-over-quarter data reveals a 10.5% increase in the number of daily transactions, which rose from 1,309 in the fourth quarter of 2015 to 1,446 in the final quarter of 2016.
	5.3%		16.6%	The average daily trade size of other taxonomies grew more and remained larger than interest rate swaps. Over the past year, trades were 16.6% bigger for other taxonomies, increasing from an average \$254.2 million in 2015 to \$296.3 million in 2016. During the final three month of 2016, average trade size increased by 5.3%, from \$255.5 million to \$269.0 million, relative to the fourth quarter of 2015.

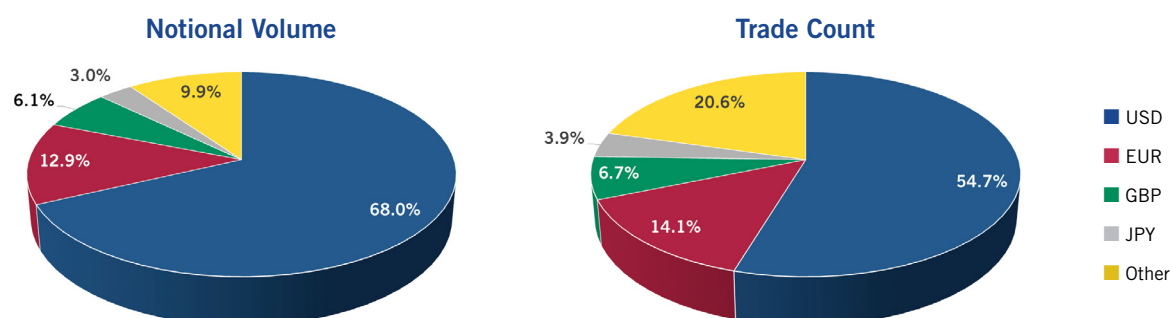
## IRD STATISTICS: TAXONOMY DATA

Average Daily Notional Volume, Trade Count and Trade Size Quarterly Statistics

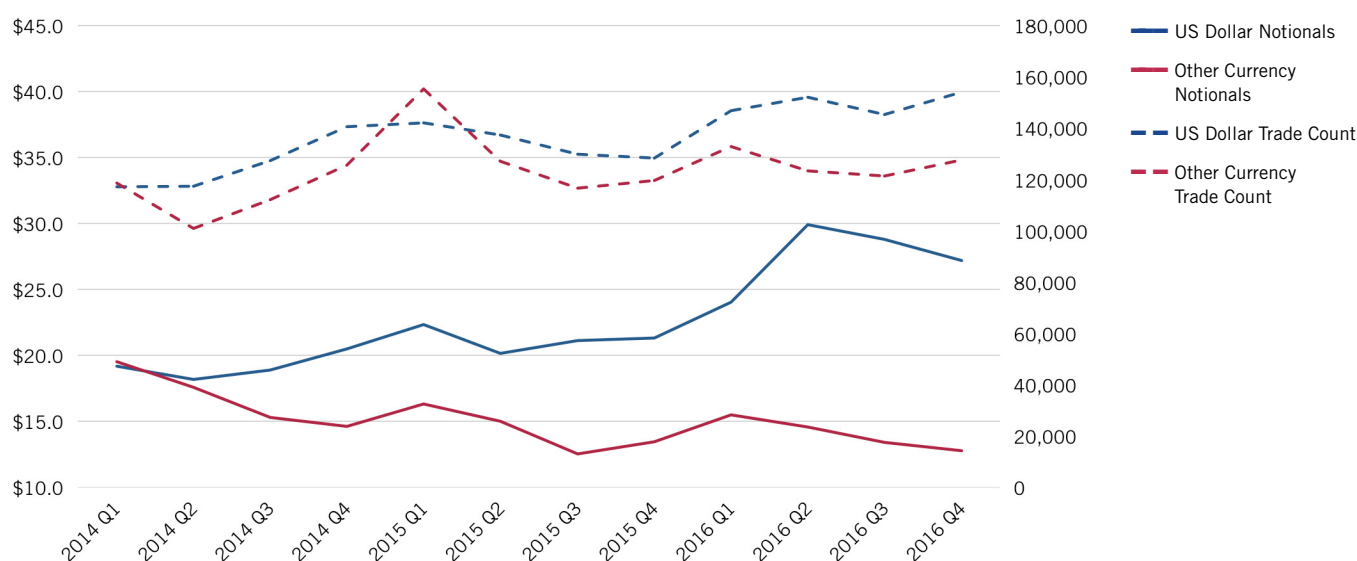
			Total	Interest Rate Swaps	Other Taxonomies	
Average Daily Notional Volume (\$US billions)	2014	2014 Q1	605,611,751,521	187,175,857,717	418,435,893,804	
		2014 Q2	550,427,249,407	168,126,950,730	382,300,298,677	
		2014 Q3	517,893,964,763	182,646,633,366	335,247,331,396	
		2014 Q4	531,643,144,149	216,890,347,281	314,752,796,869	
	2015	2015 Q1	604,139,316,795	205,129,417,885	399,009,898,910	
		2015 Q2	540,892,736,334	188,302,051,011	352,590,685,323	
		2015 Q3	510,048,294,383	173,894,457,120	336,153,837,263	
		2015 Q4	526,727,736,726	175,129,308,925	351,598,427,801	
	2016	2016 Q1	608,407,328,635	203,448,250,149	408,089,051,565	
		2016 Q2	684,213,607,401	188,061,677,319	496,151,930,082	
		2016 Q3	639,534,365,771	175,554,880,387	463,979,485,383	
		2016 Q4	615,285,047,242	205,195,333,538	410,089,713,704	
	Average Daily Trade Count	2014	2014 Q1	3,684	2,281	1,404
			2014 Q2	3,360	2,169	1,190
			2014 Q3	3,628	2,454	1,174
			2014 Q4	4,035	2,875	1,160
2015		2015 Q1	4,645	3,075	1,570	
		2015 Q2	4,070	2,757	1,312	
		2015 Q3	3,732	2,507	1,226	
		2015 Q4	3,756	2,446	1,309	
2016		2016 Q1	4,302	2,937	1,410	
		2016 Q2	4,236	2,706	1,530	
		2016 Q3	4,041	2,620	1,421	
		2016 Q4	4,336	2,889	1,446	
Average Trade Size (\$US millions)		2014	2014 Q1	152,777,578	80,972,890	276,710,191
			2014 Q2	152,516,422	77,422,482	302,661,172
			2014 Q3	139,413,303	74,522,357	276,083,429
			2014 Q4	126,750,870	74,316,272	249,588,501
	2015	2015 Q1	123,587,015	66,001,125	233,725,466	
		2015 Q2	128,241,277	67,964,379	258,862,351	
		2015 Q3	130,844,654	69,166,187	268,153,704	
		2015 Q4	130,562,270	70,434,347	255,539,666	
	2016	2016 Q1	134,591,717	69,140,987	277,398,539	
		2016 Q2	152,540,471	69,464,639	308,381,174	
		2016 Q3	153,566,099	67,091,571	329,968,205	
		2016 Q4	134,286,780	69,952,611	269,003,769	

## IRD STATISTICS: CURRENCY DASHBOARD

IRD average daily volume and trade count trends continued to be influenced by US dollar-denominated trading. During the fourth quarter of 2016, these trades accounted for 68.0% and 54.7% of the total, respectively. Euro-denominated transactions accounted for a far smaller percentage of notional volume (12.9%) and trade count (14.1%).



### Currency: IRD Notional Volume (US\$ trillions) and Trade Count (thousands) 2014Q1 – 2016Q4















Source: DTCC and Bloomberg SDRs

**Notional Volume:** US dollar swap volume (solid blue line, main axis) increased between 2015 and 2016, growing by 29.5% over the year, from \$84.9 trillion to \$109.9 trillion. Non-dollar swap volume (solid red line, main axis) declined during this time. On an annual basis, non-dollar swap volume fell by 1.8%, from \$57.3 trillion to \$56.3 trillion. Double-digit growth of US dollar swaps also took place between the fourth quarter of 2015 and the final three months of 2016, when notional volume rose by 27.6%, from \$21.3 trillion to \$27.2 trillion. Non-dollar swap volume fell by 4.9% over the same period, from \$13.5 trillion to \$12.8 trillion.

**Trade Count:** US dollar swap transactions (dashed blue line, secondary axis) increased by 11.3% in 2016 versus the year before, from 537,409 to 598,263 trades. Over this period, the amount of non-dollar swap trades (dashed red line, secondary axis) fell by 2.6%, from 518,611 to 505,202. On a quarterly basis, US dollar swap trade count also increased, growing by 20.1% between the fourth quarter of 2015 and the same period a year later, from 128,285 to 154,122. During this period, the number of non-dollar transactions rose by 6.8%, from 119,579 to 127,699.

## IRD STATISTICS: CURRENCY TRENDS

Changes in the average daily volume and trade count of US dollar-denominated swaps and swaps linked to other currencies are compared in the table below on an annual and quarterly basis.

Quarterly Change		Annual Change		US Dollar Swap Statistics
	29.6%		29.5%	The frequency and size of US dollar swap trading increased during 2016. Average daily notional volume of US dollar-denominated swaps rose by 29.5% in 2016 versus the previous year, from \$326.6 billion to \$422.9 billion. Between the fourth quarters of 2015 and 2016, volume also rose. Average daily notional volume increased by 29.6% over this period, from \$327.8 billion to \$425.0 billion.
	22.0%		11.3%	The average daily number of contracts denominated in US dollars was 11.3% higher in 2016 than a year earlier, increasing from 2,067 to 2,301 trades per day. The average number of transactions also grew on a quarterly basis, rising by 22.0%, from 1,974 trades per day in the fourth quarter of 2015 to 2,408 in the final three months of 2016.
	11.2%		18.0%	US dollar swap average trade sizes were 18.0% larger in 2016. The average transaction size was \$145.6 million in 2015 compared to \$171.8 million in 2016. Trade size was also 11.2% bigger on a quarterly basis, increasing from \$150.5 million in the fourth quarter of 2015 to \$167.4 million in the same period last year.
Other Currency Statistics				
	-3.5%		-1.5%	While US dollar swap notionals rose, non-dollar average daily volume fell in 2016 by 1.5% compared to a year earlier, from \$219.6 billion to \$216.5 billion. Average daily notional volume also fell in the final three months of 2016 relative to the same period in 2015. At this time, volume decreased by 3.5%, from \$203.9 billion to \$196.8 billion.
	8.4%		-2.2%	Non-dollar average trade counts declined in tandem with notionals in 2016. The average number of trades executed per day was 2.2% lower than the previous year, falling from 1,987 to 1,943. On a quarter-over-quarter basis, average daily trade count rose, growing by 8.4%. The number of contracts transacted increased from 1,812 in the fourth quarter of 2015 to 1,965 in the final quarter of 2016.
	-8.0%		1.8%	As notional volume and the number of transactions decreased in 2016, average trade size increased slightly. Average trade size was 1.8% larger than a year ago, rising from \$106.8 million in 2015 to \$108.6 million. However, transactions were 8.0% smaller during the final quarter of 2016 versus the comparative quarter in 2015, falling from \$105.5 million to \$97.1 million.

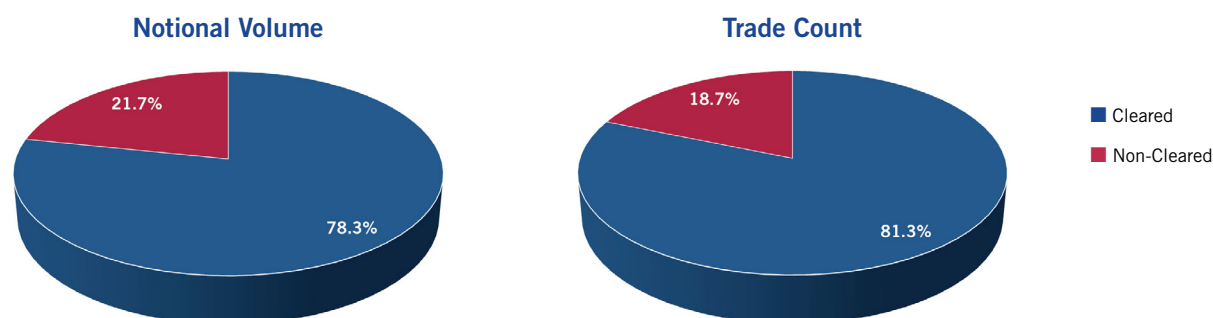
## IRD STATISTICS: CURRENCY DATA

Average Daily Notional Volume, Trade Count and Trade Size Quarterly Statistics

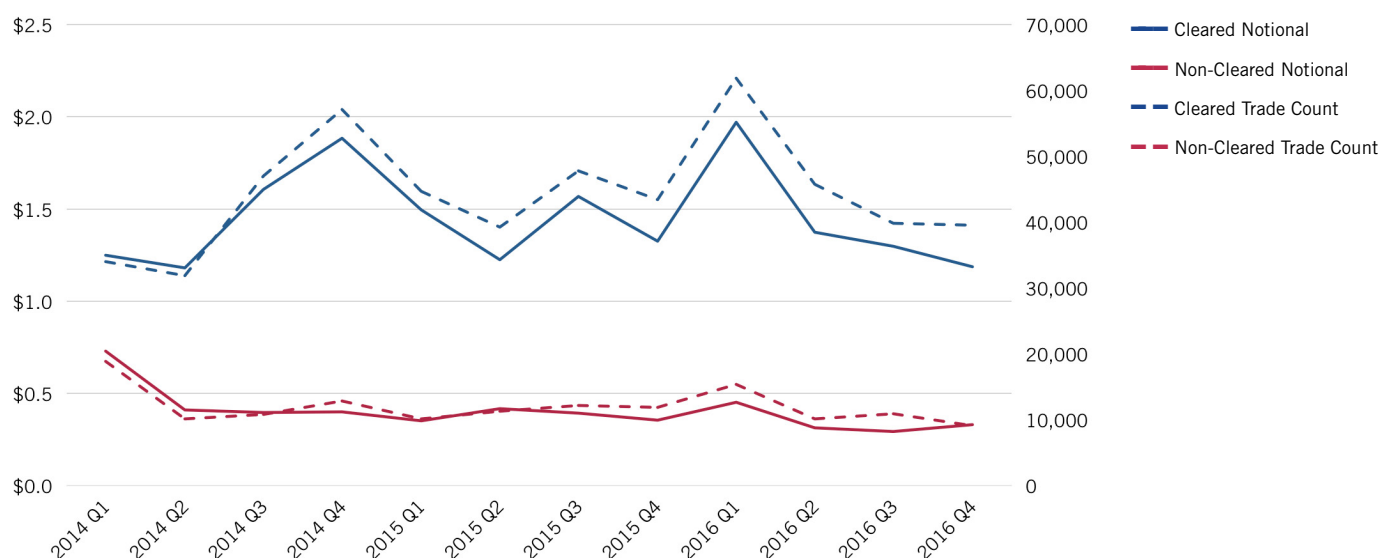
			Total	US Dollar Swaps	Other Currencies	
Average Daily Notional Volume (\$US billions)	2014	2014 Q1	605,611,751,521	300,190,042,012	305,421,709,509	
		2014 Q2	550,427,249,407	279,760,368,782	270,666,880,626	
		2014 Q3	517,893,964,763	286,280,198,173	231,613,766,590	
		2014 Q4	531,643,144,149	310,329,146,329	221,313,997,820	
	2015	2015 Q1	604,139,316,795	349,320,783,754	254,818,533,041	
		2015 Q2	540,892,736,334	309,765,439,293	231,127,297,041	
		2015 Q3	510,048,294,383	320,053,067,644	189,995,226,739	
		2015 Q4	526,727,736,726	327,816,616,984	203,878,038,182	
	2016	2016 Q1	608,407,328,635	369,934,833,648	242,198,627,721	
		2016 Q2	684,213,607,401	460,027,350,909	224,186,256,492	
		2016 Q3	639,534,365,771	436,327,840,626	203,206,525,144	
		2016 Q4	615,285,047,242	424,994,921,317	196,828,509,330	
	Average Daily Trade Count	2014	2014 Q1	3,684	1,830	1,854
			2014 Q2	3,360	1,807	1,553
			2014 Q3	3,628	1,928	1,700
			2014 Q4	4,035	2,131	1,903
2015		2015 Q1	4,645	2,220	2,426	
		2015 Q2	4,070	2,113	1,956	
		2015 Q3	3,732	1,965	1,767	
		2015 Q4	3,756	1,974	1,812	
2016		2016 Q1	4,302	2,260	2,074	
		2016 Q2	4,236	2,338	1,898	
		2016 Q3	4,041	2,201	1,840	
		2016 Q4	4,336	2,408	1,965	
Average Trade Size (\$US millions)	2014	2014 Q1	152,777,578	147,940,485	153,465,292	
		2014 Q2	152,516,422	138,609,721	164,469,964	
		2014 Q3	139,413,303	140,391,417	135,248,880	
		2014 Q4	126,750,870	136,311,259	111,767,191	
	2015	2015 Q1	123,587,015	142,003,624	102,590,319	
		2015 Q2	128,241,277	138,422,077	114,720,615	
		2015 Q3	130,844,654	151,368,948	104,193,550	
		2015 Q4	130,562,270	150,531,999	105,494,963	
	2016	2016 Q1	134,591,717	151,232,985	114,644,330	
		2016 Q2	152,540,471	182,135,583	114,022,751	
		2016 Q3	153,566,099	186,147,730	108,849,776	
		2016 Q4	134,286,780	167,357,438	97,057,053	

## CDS INDEX STATISTICS: CENTRAL CLEARING DASHBOARD

Over three-quarters of CDS index notional volume and trade count was cleared in the final three months of 2016. At this time, 78.3% of notional volume, or \$1.2 trillion out of \$1.5 trillion, and 81.3% of transactions, or 39,483 out of 48,577, were centrally cleared.



### Central Clearing: CDS Index Notional Volume (US\$ trillions) and Trade Count (thousands) 2014Q1 – 2016Q4



Source: DTCC and Bloomberg SDRs













**Notional Volume:** Cleared volume (solid blue line, main axis) grew by 3.8%, from \$5.6 trillion to \$5.8 trillion, in 2016 versus a year earlier. Non-cleared volume (solid red line, main axis) continued to dwindle lower over this period, falling from \$1.5 trillion to \$1.4 trillion, a decline of 8.4%. On a quarterly basis, cleared volume declined by 10.4%, from \$1.3 trillion in the fourth quarter of 2015 to \$1.2 trillion during the final three months of 2016. Non-cleared notional volume also drifted lower, decreasing by 6.9%, from \$354.0 billion to \$329.7 billion, over the same period.

**Trade Count:** CDS index cleared trade count (dashed blue line, secondary axis) grew by 6.7%, from 175,159 transactions in 2015 to 186,915 trades the following year. Roughly the same amount of non-cleared contracts (dashed red line, secondary axis) were executed in 2015 versus 2016: 45,494 compared to 45,495. At the end of the final quarter in 2016, the number of centrally cleared and non-cleared transactions fell relative to the last quarter of 2015. Cleared trade count decreased by 9.0%, from 43,398 to 39,483, while non-cleared trading fell by 23.4%, from 11,871 to 9,094 transactions.



## CDS INDEX STATISTICS: CENTRAL CLEARING TRENDS

Changes in cleared and non-cleared average daily volume, trade count and trade size statistics are compared in the table below on an annual and quarterly basis.

Quarterly Change		Annual Change		Cleared Statistics
	-9.0%		3.8%	Average daily cleared CDS index notional volume increased in 2016, climbing by 3.8%, from \$21.8 billion to \$22.6 billion, versus 2015. However, average daily centrally cleared volume fell between the final quarters of 2015 and 2016, declining by 9.0%, from \$20.4 billion to \$18.5 billion.
	-7.6%		6.6%	The number of centrally cleared contracts increased in line with notional volume on an annual basis. Average daily cleared trade count was roughly 724 contracts in 2016, a 6.6% increase versus the 2015 average of 679. As notionals drifted lower on a quarterly basis, the number of contracts traded each day also fell. Trade count declined by 7.6%, falling from 669 to 617 transactions.
	1.5%		-3.4%	Cleared CDS index average trade size was 3.4% smaller in 2016 than the previous year. The average size of a cleared CDS index transaction in the year was roughly \$30.4 million versus \$31.5 million in 2015. During the final quarter of 2016, average trade size increased by 1.5%, rising from \$29.5 million to \$29.9 million relative to the final quarter of 2015.
Non-Cleared Statistics				
	-3.9%		-8.1%	Non-cleared CDS index average daily volume has continued to diminish. Notionals were 8.1% lower in 2016 versus 2015, falling from \$5.8 billion to \$5.4 billion. Average daily volume also declined quarter-over-quarter, shrinking by 3.9%, from \$5.4 billion in the fourth quarter of 2015 to \$5.2 billion during the last three months of 2016.
	-21.3%		0.0%	Non-cleared trade counts were mostly unchanged between 2015 and 2016, averaging around 176 trades per day. However, a decrease of 21.3% occurred between the fourth quarter of 2015 and the comparative quarter of 2016, as the average number of trades per day fell from 183 to 144.
	29.6%		-5.7%	Non-cleared CDS index trade size declined in 2016 on an annual basis, falling by 5.7%, from \$33.5 million to \$31.6 million. Average trade sizes grew by approximately 29.6% between the last quarter of 2015 and the final three months of 2016, increasing from \$29.5 million to \$38.3 million.

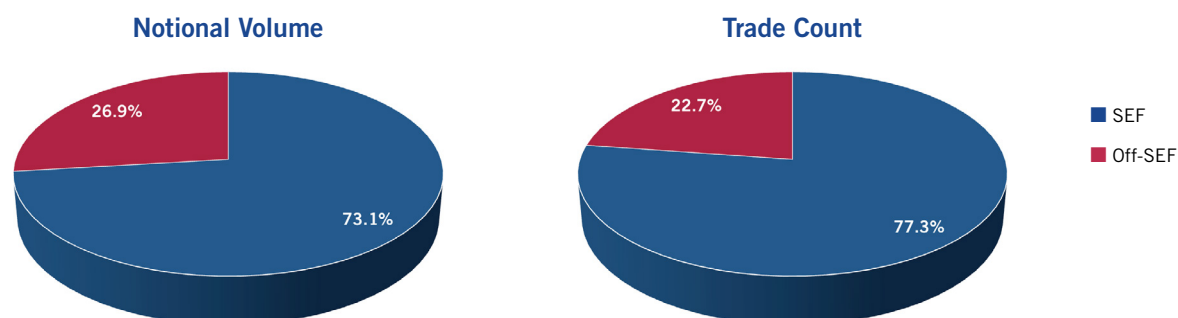
## CDS INDEX STATISTICS: CENTRAL CLEARING DATA

Average Daily Notional Volume, Trade Count and Trade Size Quarterly Statistics

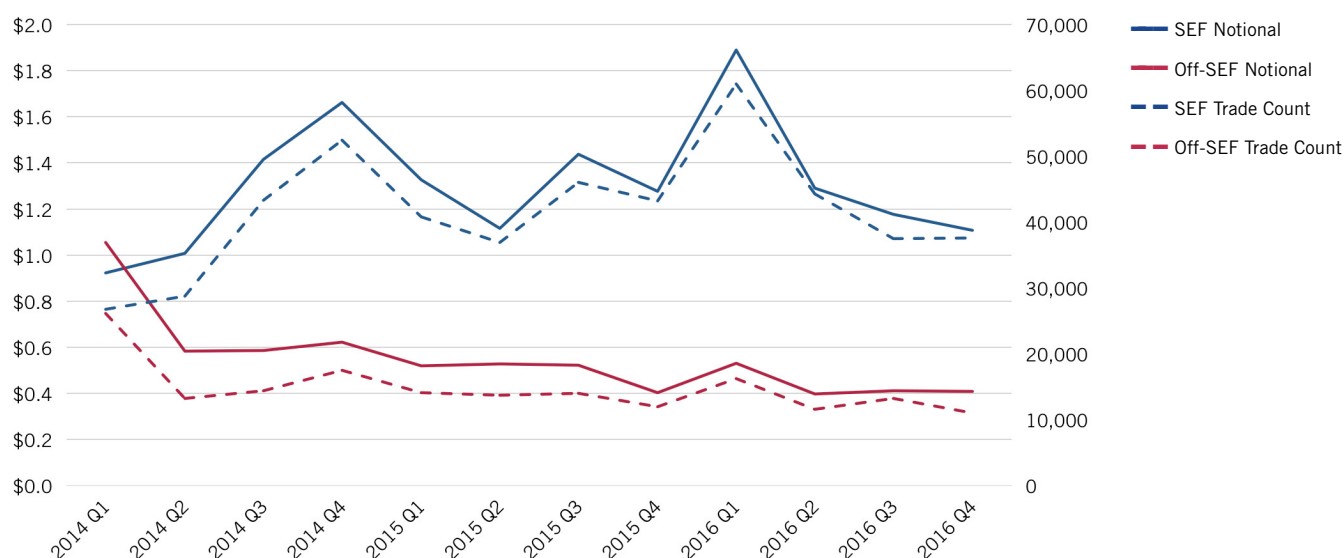
			Total	Cleared	Non-Cleared
Average Daily Notional Volume (\$US billions)	2014	2014 Q1	31,401,353,379	19,813,718,809	11,587,634,570
		2014 Q2	24,483,283,812	18,735,208,238	6,324,543,520
		2014 Q3	30,333,242,617	24,319,941,188	6,013,301,429
		2014 Q4	34,580,241,988	28,975,702,754	6,043,565,033
	2015	2015 Q1	29,309,088,023	23,747,798,778	5,561,289,245
		2015 Q2	25,263,002,314	19,146,405,698	6,411,156,703
		2015 Q3	29,672,107,176	23,731,604,732	5,940,502,444
		2015 Q4	25,811,264,664	20,365,193,820	5,446,070,845
	2016	2016 Q1	37,229,296,185	30,776,731,331	7,034,272,606
		2016 Q2	25,941,659,902	21,463,020,664	4,808,839,556
		2016 Q3	24,079,884,478	19,635,225,634	4,444,658,845
		2016 Q4	23,683,768,413	18,532,965,666	5,232,561,521
Average Daily Trade Count	2014	2014 Q1	840	540	300
		2014 Q2	646	506	156
		2014 Q3	875	711	164
		2014 Q4	1,060	878	195
	2015	2015 Q1	871	709	162
		2015 Q2	778	614	174
		2015 Q3	909	725	184
		2015 Q4	850	668	183
	2016	2016 Q1	1,188	967	240
		2016 Q2	859	714	156
		2016 Q3	768	604	165
		2016 Q4	759	617	144
Average Trade Size (\$US millions)	2014	2014 Q1	37,297,587	36,308,115	39,225,316
		2014 Q2	36,950,755	36,833,772	40,063,890
		2014 Q3	34,555,795	34,053,389	37,397,257
		2014 Q4	31,343,084	31,736,574	32,004,750
	2015	2015 Q1	33,405,637	33,087,120	35,399,066
		2015 Q2	32,074,098	31,510,442	36,522,648
		2015 Q3	32,073,752	31,966,070	32,807,897
		2015 Q4	29,422,929	29,491,227	29,520,861
	2016	2016 Q1	30,575,009	31,151,840	29,585,022
		2016 Q2	29,508,754	29,751,285	30,563,741
		2016 Q3	30,205,512	30,853,999	28,328,321
		2016 Q4	31,553,753	29,933,795	38,259,406

## CDS INDEX STATISTICS: TRADING VENUE DASHBOARD

A larger percentage of CDS index trades are transacted on a SEF compared to IRD. During the fourth quarter of 2016, 73.1% of notional volume, or \$1.1 trillion of \$1.5 trillion, was SEF-traded. An even larger share of trade count was dealt on a venue at this time: 77.3% of transactions, or 37,553 of 48,577 trades.



### Trading Venue: CDS Index Notional Volume (US\$ trillions) and Trade Count (thousands) 2014Q1 – 2016Q4















Source: DTCC and Bloomberg SDRs

**Notional Volume:** CDS index volume transacted on a SEF (solid blue line, main axis) edged higher in 2016 versus the previous year, with notional volume growing by 6.0%, from \$5.2 trillion to \$5.5 trillion. Meanwhile, off-SEF volume (solid red line, main axis) fell by 11.3%, from \$2.0 trillion to \$1.7 trillion, during this time. SEF volume decreased in the fourth quarter of 2016 relative to the same quarter of 2015, falling by 13.1%, from \$1.3 trillion to \$1.1 trillion. Over the same period, off-SEF notional volume rose by 1.4%, from \$401.7 billion to \$407.3 billion.

**Trade Count:** Changes in trade count tracked notional volume trends as SEF transactions (dashed blue line, secondary axis) increased by 8.0% between 2015 and 2016, from 166,880 to 180,309. Off-SEF transactions (dashed red line, secondary axis) fell by 3.1% over the year, from 53,773 to 52,101. During the final quarter of 2016, the number of transactions declined from the comparative quarter of 2015, regardless of execution venue. The number of SEF-traded contracts decreased by 13.2%, falling from 43,254 to 37,553, while off-SEF trade count was 8.2% lower, declining from 12,015 to 11,024.

## CDS INDEX STATISTICS: TRADING VENUE TRENDS

Changes in SEF and off-SEF average daily volume and trade count are compared in the table below on an annual and quarterly basis.

Quarterly Change		Annual Change		SEF Statistics
	-11.8%		6.0%	SEF-traded average daily notional volume has grown over the past year. In 2016, \$21.2 billion worth of CDS index trades occurred on a SEF each day on average, an increase of 6.0% over the previous year when daily volume was approximately \$20.0 billion. During the final quarter of the year, however, average daily SEF volume contracted by 11.8%, falling from \$19.6 billion in the fourth quarter of 2015 to \$17.3 billion in the same period in 2016.
	11.7%		8.0%	The number of contracts transacted on a SEF also increased in 2016, growing by 8.0%, from 647 to 699 trades per day, versus the previous year. The average number of daily CDS index transactions on a SEF fell in lockstep with notional volume on a quarterly basis. Trade count declined by 11.7%, from 665 trades per day in the fourth quarter of 2015 to 587 in the fourth quarter of 2016.
	2.7%		-2.6%	The average SEF transaction size was 2.6% smaller in 2016 versus the previous year, falling from \$30.4 million to \$29.6 million. Average CDS index trade size did, however, increase by 2.7% between the final three months of 2015 and the comparative quarter a year later, from \$28.6 million to \$29.4 million.
Off-SEF Statistics				
	4.6%		-11.3%	Average daily off-SEF volume was nearly three times lower than SEF-traded volume in 2016. During the year, off-SEF CDS index notionals were 11.3% smaller than 2015, averaging \$6.8 billion versus \$7.6 billion per day. Average daily volume off-SEF picked up in the final quarter of the year versus the fourth quarter of 2015, as notional volume increased by 4.6%, from \$6.2 billion to \$6.5 billion.
	-5.4%		-3.4%	Fewer transactions were traded off-SEF in 2016 versus the previous year. Average off-SEF daily trade count fell by 3.4%, from 208 to 201 trades per day. Comparing the last quarter of 2016 to the final three months of 2015 reveals a similar pattern. The number of off-SEF transactions fell by 5.4%, from 185 to 175.
	18.0%		-6.5%	Average trade sizes executed away from a SEF were smaller in 2016. Off-SEF trade size fell by 6.5% over the year, falling from \$36.5 million to \$34.2 million per trade. Meanwhile, quarterly trends revealed a growth pattern. Contract size increased by 18.0%, rising from \$33.0 million in the final quarter of 2015 to \$38.9 million in the final quarter of 2016.

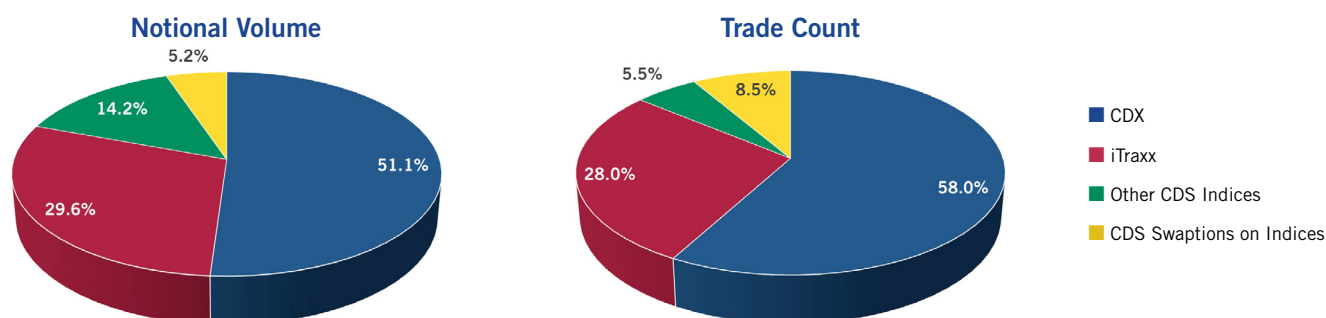
## CDS INDEX STATISTICS: TRADING VENUE DATA

Average Daily Notional Volume, Trade Count and Trade Size Quarterly Statistics

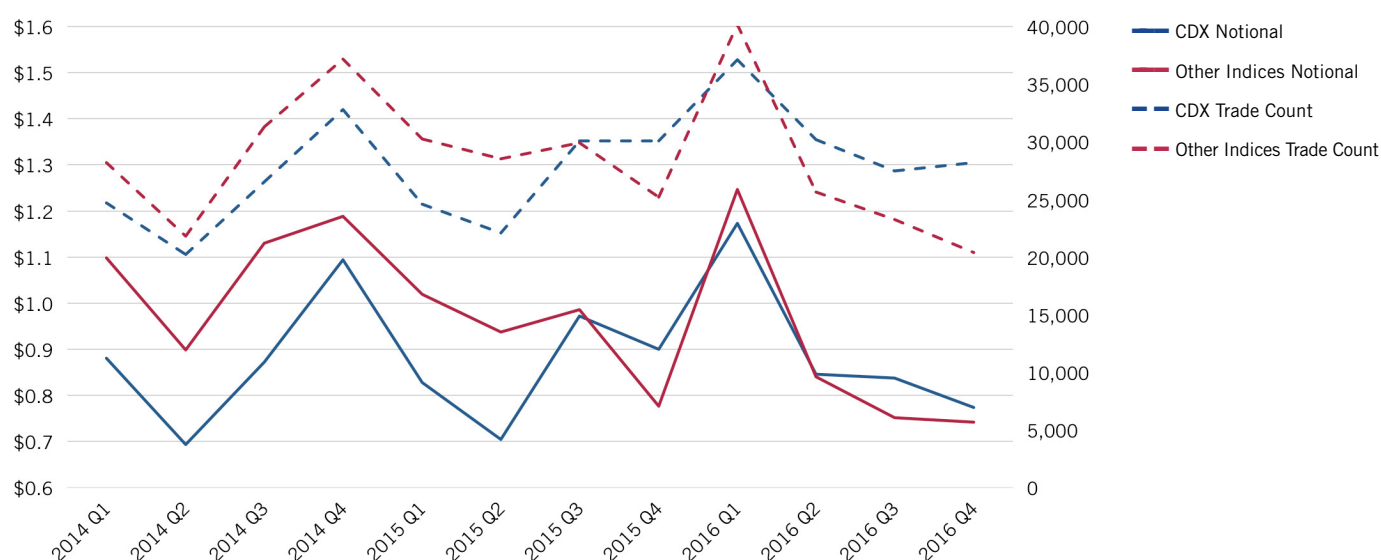
			Total	SEF	Off-SEF	
Average Daily Notional Volume (\$US billions)	2014	2014 Q1	31,401,353,379	14,642,986,746	16,758,366,633	
		2014 Q2	24,483,283,812	15,995,695,319	8,979,763,734	
		2014 Q3	30,333,242,617	21,450,902,331	8,882,340,287	
		2014 Q4	34,580,241,988	25,553,155,844	9,414,255,171	
	2015	2015 Q1	29,309,088,023	21,045,221,821	8,263,866,202	
		2015 Q2	25,263,002,314	17,419,081,361	8,111,906,820	
		2015 Q3	29,672,107,176	21,765,061,886	7,907,045,290	
		2015 Q4	25,811,264,664	19,630,694,295	6,180,570,369	
	2016	2016 Q1	37,229,296,185	29,499,265,083	8,183,865,949	
		2016 Q2	25,941,659,902	20,155,212,580	6,096,527,515	
		2016 Q3	24,079,884,478	17,825,789,940	6,254,094,538	
		2016 Q4	23,683,768,413	17,319,118,548	6,465,676,053	
	Average Daily Trade Count	2014	2014 Q1	840	425	415
			2014 Q2	646	456	204
			2014 Q3	875	657	219
			2014 Q4	1,060	807	265
2015		2015 Q1	871	647	224	
		2015 Q2	778	576	210	
		2015 Q3	909	697	212	
		2015 Q4	850	665	185	
2016		2016 Q1	1,188	953	250	
		2016 Q2	859	691	179	
		2016 Q3	768	568	200	
		2016 Q4	759	587	175	
Average Trade Size (\$US millions)		2014	2014 Q1	37,297,587	33,528,215	40,846,158
			2014 Q2	36,950,755	34,880,762	43,369,154
			2014 Q3	34,555,795	32,455,354	40,952,906
			2014 Q4	31,343,084	30,362,818	35,646,877
	2015	2015 Q1	33,405,637	32,028,057	37,693,692	
		2015 Q2	32,074,098	30,569,841	37,932,301	
		2015 Q3	32,073,752	30,434,700	37,516,958	
		2015 Q4	29,422,929	28,604,202	32,971,024	
	2016	2016 Q1	30,575,009	30,601,755	32,375,741	
		2016 Q2	29,508,754	28,817,329	33,743,292	
		2016 Q3	30,205,512	29,622,384	31,834,894	
		2016 Q4	31,553,753	29,389,520	38,897,630	

## CDS INDEX STATISTICS: TAXONOMY DASHBOARD

CDX indices accounted for the largest share of CDS index notional volume and trade count in the last quarter of 2016. CDX indices made up 51.1% of notional volume, or \$774.1 billion of \$1.5 trillion. In terms of trade count, CDX indices represented 58.0% of the total in the quarter, or 28,184 of 48,577 trades.



### Taxonomy: CDS Index Notional Volume (US\$ trillions) and Trade Count (thousands) 2014Q1 – 2016Q4



Source: DTCC and Bloomberg SDRs













**Notional Volume:** CDX index notional volume<sup>1</sup> (solid blue line, main axis) rose by 6.6% in 2016, climbing from \$3.4 trillion in 2015 to \$3.6 trillion. Volume linked to other CDS indices and swaptions on indices (solid red line, main axis) fell by 3.7% over the same period, from \$3.7 trillion to \$3.6 trillion. Declines across groups were observed during the fourth quarter of 2016 versus the final three months of 2015. CDX index notional volume fell by 14.0% over the period, from \$900.5 billion to \$774.1 billion, while other indices contracted by 4.6%, from \$777.3 billion to \$741.7 billion.

**Trade Count:** The number of CDX index transactions occurring between 2015 and 2016 increased by 15.1%, from 106,840 to 122,973 (blue dashed line, secondary axis). Other indices (red dashed line, secondary axis) also saw declines in aggregate trade count over the year, falling by 3.8%, from 113,813 to 109,437 trades. During the last quarter of 2016, CDX index trade count fell by 6.3%, from 30,078 in the last three months of 2015 to 28,184 in the fourth quarter of 2016. Transactions involving other taxonomies declined by 19.0% over the same period, from 25,191 to 20,393.

<sup>1</sup> CDX notional volume and trade count includes all untranched CDX indices present in the DTCC and Bloomberg swap data repositories

## INDEX CDS STATISTICS: TAXONOMY TRENDS

Changes in CDX index and other CDS index average daily volume and trade count are compared in the table below on an annual and quarterly basis.

Quarterly Change		Annual Change		CDX Index Statistics
	-14.0%		6.6%	Average daily notional volume of CDX indices has grown over the past year. Between 2015 and 2016, average daily notional volume increased by 6.6%, from \$13.5 billion to \$14.3 billion. Between the fourth quarter of 2015 and the final three months of 2016, average notional volume fell by 14.0%, from \$14.3 billion to \$12.3 billion.
	-6.3%		15.2%	The average daily number of CDX index contracts also increased in 2016 versus the prior year, growing by 15.2%, from 422 to 486 trades per day. During the fourth quarter of 2016, average daily transactions fell by 6.3%, from 477 in the fourth quarter of 2015 to 447 in the same quarter of 2016.
	-6.4%		-8.3%	As average daily volume and trade count rose, trade size decreased over the year. Average CDX index trade size was 8.3% smaller in 2016 than in 2015, decreasing from \$31.2 million to \$28.7 million. On a quarterly basis, trade size declined by 6.4%, from \$29.1 million in the fourth quarter of 2015 to \$27.3 million in the last three months of 2016.
Other Index Statistics				
	-1.6%		-3.4%	Average daily volume of non-CDX indices declined as a group in 2016 versus 2015. Volume fell by 3.4% over the year, from \$14.4 billion to \$13.9 billion. Likewise, average daily notional volume was lower in the fourth quarter of 2016 versus the comparative quarter in 2015, falling by 1.6%, from \$12.0 billion to \$11.8 billion.
	-16.5%		-3.4%	Average trade counts of other CDS index taxonomies declined in lockstep with notionals, also falling by 3.4% in the year, from 439 to 424 trades each day. Larger declines were recorded between the final quarter of 2015 and the last quarter of 2016. During this time, the number of daily trades dropped by 16.5%, from 388 to 324.
	22.1%		2.0%	Average trade size of non-CDX index taxonomies grew modestly over 2016, increasing from \$32.2 million to \$32.9 million, a rise of 2.0% for the group. Comparing the fourth quarter of 2015 and the final three months of 2016 reveals a 22.1% increase in average trade size. At this time, trade size rose from \$30.1 million to \$36.7 million.

## CDS INDEX STATISTICS: TAXONOMY DATA

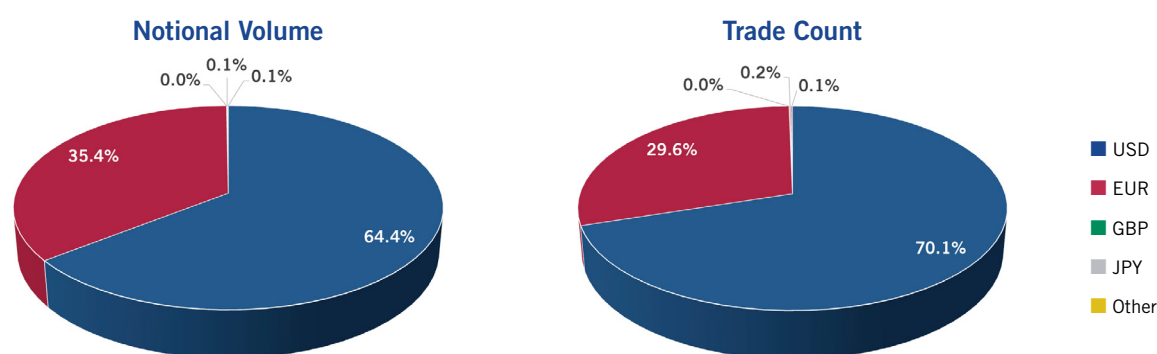
Average Daily Notional Volume, Trade Count and Trade Size Quarterly Statistics

			Total	CDX Index	Other Indices	
Average Daily Notional Volume (\$US billions)	2014	2014 Q1	31,401,353,379	13,966,064,709	17,435,288,670	
		2014 Q2	24,483,283,812	10,998,752,515	13,822,954,451	
		2014 Q3	30,333,242,617	13,619,046,247	17,126,894,741	
		2014 Q4	34,580,241,988	17,367,132,536	18,002,524,567	
	2015	2015 Q1	29,309,088,023	13,345,945,595	16,174,982,834	
		2015 Q2	25,263,002,314	11,003,121,470	14,429,159,635	
		2015 Q3	29,672,107,176	15,186,607,055	14,945,700,335	
		2015 Q4	25,811,264,664	14,293,329,935	11,957,729,496	
	2016	2016 Q1	37,229,296,185	18,916,514,047	19,485,630,955	
		2016 Q2	25,941,659,902	13,210,652,406	12,934,248,302	
		2016 Q3	24,079,884,478	13,077,575,973	11,398,598,686	
		2016 Q4	23,683,768,413	12,287,363,876	11,772,337,369	
	Average Daily Trade Count	2014	2014 Q1	840	392	448
			2014 Q2	646	321	335
			2014 Q3	875	414	474
			2014 Q4	1,060	520	563
2015		2015 Q1	871	397	480	
		2015 Q2	778	345	438	
		2015 Q3	909	470	453	
		2015 Q4	850	477	388	
2016		2016 Q1	1,188	598	627	
		2016 Q2	859	472	395	
		2016 Q3	768	429	352	
		2016 Q4	759	447	324	
Average Trade Size (\$US millions)		2014	2014 Q1	37,297,587	34,360,172	39,236,934
			2014 Q2	36,950,755	34,086,357	40,623,759
			2014 Q3	34,555,795	32,535,918	36,041,759
			2014 Q4	31,343,084	31,525,687	31,443,282
	2015	2015 Q1	33,405,637	32,573,392	33,610,561	
		2015 Q2	32,074,098	31,762,371	32,746,998	
		2015 Q3	32,073,752	31,645,199	32,610,300	
		2015 Q4	29,422,929	29,115,999	30,053,326	
	2016	2016 Q1	30,575,009	30,957,260	30,988,833	
		2016 Q2	29,508,754	27,719,000	32,026,563	
		2016 Q3	30,205,512	28,869,125	31,892,427	
		2016 Q4	31,553,753	27,254,915	36,708,628	

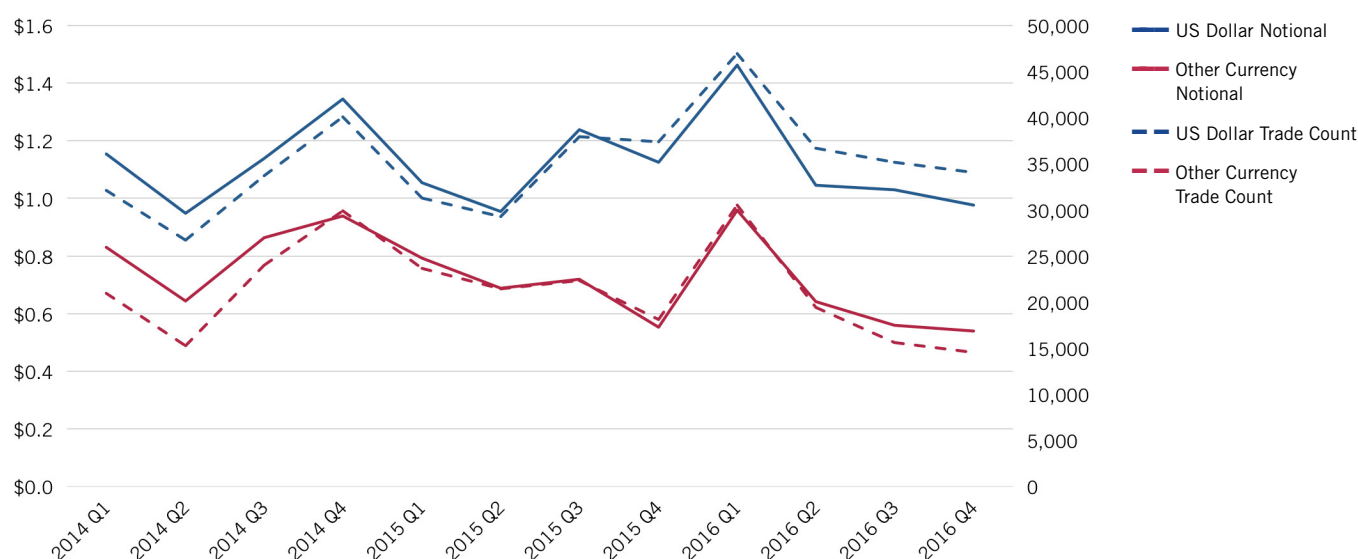


## CDS INDEX STATISTICS: CURRENCY DASHBOARD

CDS index average daily volume and trade count trends continued to be influenced by US dollar-denominated trading. During the fourth quarter of 2016, these trades comprised for 64.4% and 70.1% of the total, respectively. Euro-denominated transactions accounted for the second-largest percentage of notional volume (35.4%) and trade count (29.6%).



### Currency: CDS index Notional Volume (US\$ trillions) and Trade Count (thousands) 2014Q1 – 2016Q4















Source: DTCC and Bloomberg SDRs

**Notional Volume:** US dollar-denominated CDS index volume (solid blue line, main axis) increased between 2015 and 2016, growing by 3.3%, from \$4.4 trillion to \$4.5 trillion. Non-dollar index volume (solid red line, main axis) declined during this time, falling by 2.1%, from \$2.8 trillion to \$2.7 trillion. US dollar notionals fell to \$977 billion in the final quarter of 2016, representing a 13.1% decline from the same quarter in 2015, when notionals reached \$1.1 trillion. Non-dollar notionals fell by 2.6%, from \$553.6 billion to \$539.1 billion over the same period.

**Trade Count:** US dollar CDS index transactions (dashed blue line, secondary axis) increased by 12.5% between 2015 and 2016, from 135,815 to 152,837 trades. Over this period, the amount of non-dollar index trades (dashed red line, secondary axis) fell by 6.4%, from 85,601 to 80,165. On a quarterly basis, US dollar CDS index trade count decreased by 8.9%, from 37,351 in the fourth quarter of 2015 to 34,037 in the fourth quarter of 2016. During this time, the number of non-dollar index transactions also fell, from 18,148 to 14,546, representing a 19.8% drop.

## CDS INDEX STATISTICS: CURRENCY TRENDS

Changes in the average daily volume and trade count of US dollar-denominated CDS indices and CDS indices linked to other currencies are compared in the table below on an annual and quarterly basis.

Quarterly Change		Annual Change		US Dollar CDS Index Statistics
	-10.4%		3.7%	US dollar-denominated CDS index average daily notional volume grew by 3.7% in 2016 versus the year before, from \$16.9 billion to \$17.6 billion. However, volume fell between the fourth quarter of 2015 and 2016. Average notionals decreased by 10.4% over this period, from \$17.3 billion to \$15.5 billion.
	-6.1%		13.1%	The average number of US dollar CDS index trades transacted each day in 2016 was 13.1% higher than a year earlier, increasing from 526 to 595. The average daily trade count declined on a quarterly basis, dropping by 6.1%, from 575 in the fourth quarter of 2015 to 540 in the same period in 2016.
	-0.1%		-8.6%	CDS indices denominated in US dollars were traded in smaller size in 2016 versus 2015. Average trade size was 8.6% smaller, shrinking from \$31.5 million in 2015 to \$28.7 million in 2016. Average trade size was mostly unchanged during the fourth quarters of 2015 and 2016, hovering at around \$28.8 million per transaction.
Other Currency CDS Index Statistics				
	0.5%		-1.4%	While US dollar-denominated CDS index notional volume rose, non-dollar average daily volume was 1.4% lower in 2016 versus 2015, at \$10.5 billion versus \$10.6 billion. In the final three months of 2016, daily transactions of CDS indices denominated in other currencies were 0.5% higher relative to the same period in 2015, rising from \$8.5 billion to \$8.6 billion.
	-17.2%		-5.7%	Non-US dollar average trade counts fell in tandem with notionals in 2016. The average number of trades executed per day was 5.7% lower than the previous year, falling from 331 to 312. A sharper decline was observed on a quarterly basis, as the average number of trades fell from 279 in the fourth quarter of 2015 to 231 in the same period a year later, a decline of 17.2%.
	27.2%		7.6%	CDS indices denominated in other currencies were dealt in larger average trade sizes in 2016 versus the previous year. Average trade size increased by 7.6%, growing from \$31.3 million in 2015 to \$33.7 million in 2016. During the final three months of 2016, average trade size was 27.2% larger than the final quarter of 2015, rising from \$29.2 million to \$37.2 million.

## CDS INDEX STATISTICS: CURRENCY DATA

Average Daily Notional Volume, Trade Count and Trade Size Quarterly Statistics

			Total	US Dollar CDS Index	Other Currencies
Average Daily Notional Volume (\$US billions)	2014	2014 Q1	31,401,353,379	18,302,401,629	13,178,640,066
		2014 Q2	24,483,283,812	14,589,854,876	10,052,543,148
		2014 Q3	30,333,242,617	17,258,818,766	13,076,192,391
		2014 Q4	34,580,241,988	20,678,769,838	14,434,568,180
	2015	2015 Q1	29,309,088,023	16,722,524,879	12,590,563,144
		2015 Q2	25,263,002,314	14,898,660,493	10,600,135,069
		2015 Q3	29,672,107,176	18,767,883,306	10,912,162,870
		2015 Q4	25,811,264,664	17,300,025,800	8,517,646,556
	2016	2016 Q1	37,229,296,185	22,852,048,812	14,967,206,687
		2016 Q2	25,941,659,902	16,333,819,188	9,863,563,047
		2016 Q3	24,079,884,478	15,599,971,013	8,611,288,719
		2016 Q4	23,683,768,413	15,503,742,390	8,556,419,172
Average Daily Trade Count	2014	2014 Q1	840	510	333
		2014 Q2	646	411	239
		2014 Q3	875	511	364
		2014 Q4	1,060	616	460
	2015	2015 Q1	871	497	376
		2015 Q2	778	457	330
		2015 Q3	909	574	339
		2015 Q4	850	575	279
	2016	2016 Q1	1,188	734	477
		2016 Q2	859	573	299
		2016 Q3	768	533	241
		2016 Q4	759	540	231
Average Trade Size (\$US millions)	2014	2014 Q1	37,297,587	34,767,036	39,940,202
		2014 Q2	36,950,755	34,728,409	41,692,470
		2014 Q3	34,555,795	32,826,397	35,616,309
		2014 Q4	31,343,084	31,902,807	31,071,895
	2015	2015 Q1	33,405,637	32,769,482	33,061,876
		2015 Q2	32,074,098	32,553,060	32,265,457
		2015 Q3	32,073,752	31,754,862	30,757,777
		2015 Q4	29,422,929	28,797,550	29,239,556
	2016	2016 Q1	30,575,009	29,978,355	31,069,103
		2016 Q2	29,508,754	28,417,678	31,898,080
		2016 Q3	30,205,512	27,829,619	34,759,148
		2016 Q4	31,553,753	28,757,985	37,178,736



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