

SwapsInfo Third Quarter 2016 Review

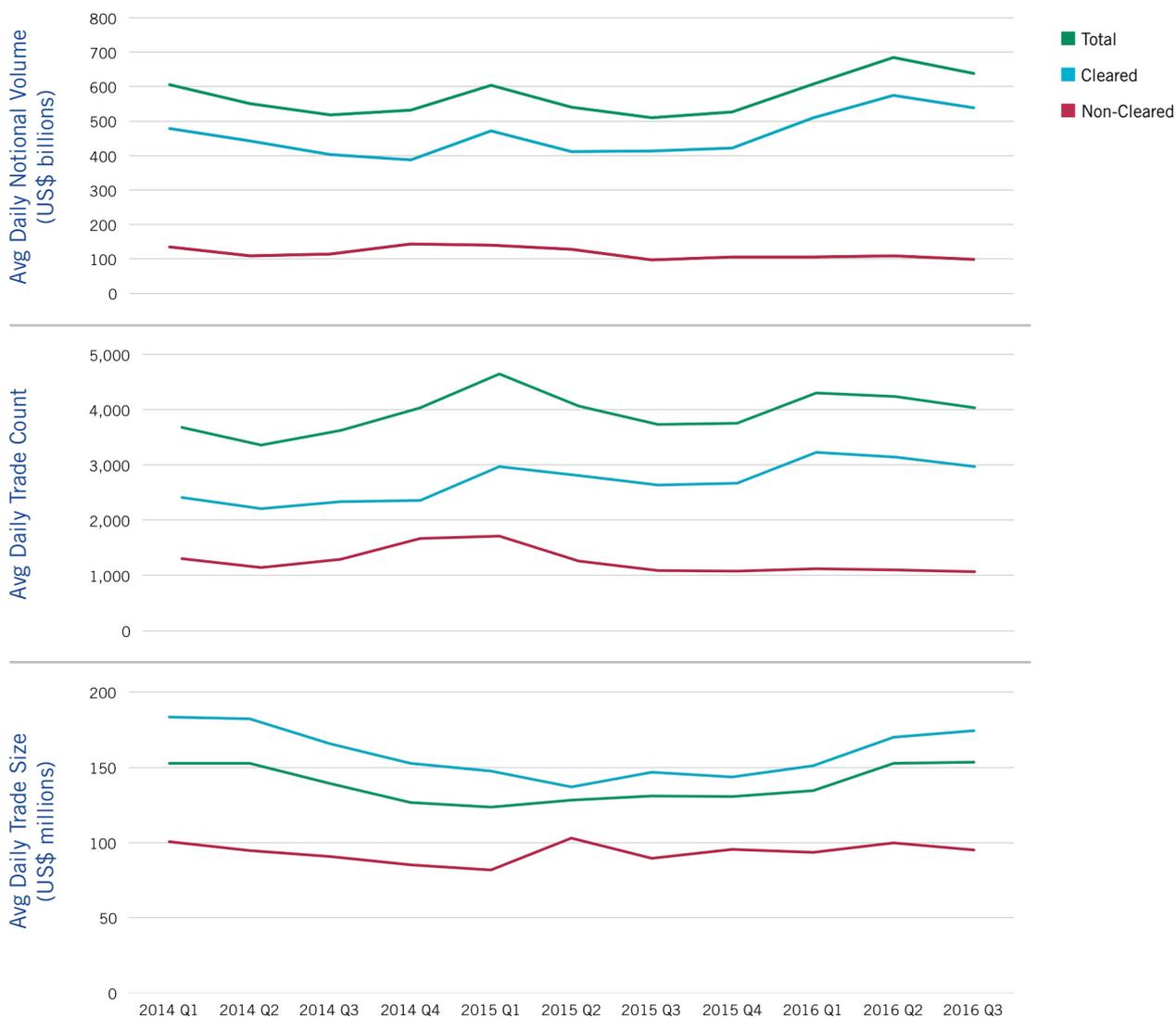
The ISDA SwapsInfo Quarterly Review provides analysis on interest rate derivatives (IRD) and credit default swap (CDS) index trading activity. The report provides a breakdown of publicly available data to analyze the impact of regulatory change on swap execution facility (SEF) and bilateral trading volumes, 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 site (swapsinfo.org), using data from the Depository Trust & Clearing Corporation and Bloomberg swap data repositories (SDRs).

KEY HIGHLIGHTS OF THE 2016 THIRD QUARTER INCLUDE:

- Average daily notional trading volume for interest rate derivatives rose by 25.3% to \$639.3 billion in the third quarter of 2016 compared with the corresponding period in 2015. Total average daily IRD trade counts increased by 8.1%, and average IRD trade size rose by 17.4% at this time.
 - Clearing accounted for 73.6% of average daily IRD trade counts and 84.4% of average daily notional volume in the third quarter of 2016.
 - More than half of average daily IRD trading activity was executed on a SEF during the third quarter: 53.8% by trade count and 53.5% by notional volume.
 - IRD average daily trade counts decreased by 4.7% compared with the second quarter of 2016. Average daily notional volume decreased by 6.6%, with average trade size modestly rising by 0.7% over the same period.
 - In the CDS index market, total average daily CDS index notional volume fell by 18.9% versus the third quarter of 2015 to \$24.1 billion, while trade counts decreased by 15.7%. CDS index average daily trade size declined by 5.5% over the same period.
 - Clearing accounted for 78.6% of average daily CDS index trade counts and 81.6% of average daily notional volume in the third quarter of 2016.
 - SEF trading accounted for 73.9% of average daily CDS index trade counts and 74.1% of average daily notional volume.
 - Average daily CDS index trade counts decreased by 10.8% and notional volume fell by 7.2% compared to the second quarter of 2016. CDS index average daily trade size increased by 2.6% over the same period.
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IRD STATISTICS: CLEARED, NON-CLEARED, TOTAL



Total IRD average daily notional volume rose during the third quarter of 2016 to \$639.3 billion, an increase of 5.6% from the first quarter of 2014. Likewise, average daily trade counts rose by 9.6%, while average trade size increased by 0.5% during this time.

Top Chart: Daily average cleared notional volume increased by 12.7%, from \$478.7 billion to \$539.6 billion, between the first quarter of 2014 and the third quarter of 2016. During this time, non-cleared notional volume fell by 25.8%, from \$134.4 billion to \$99.7 billion.

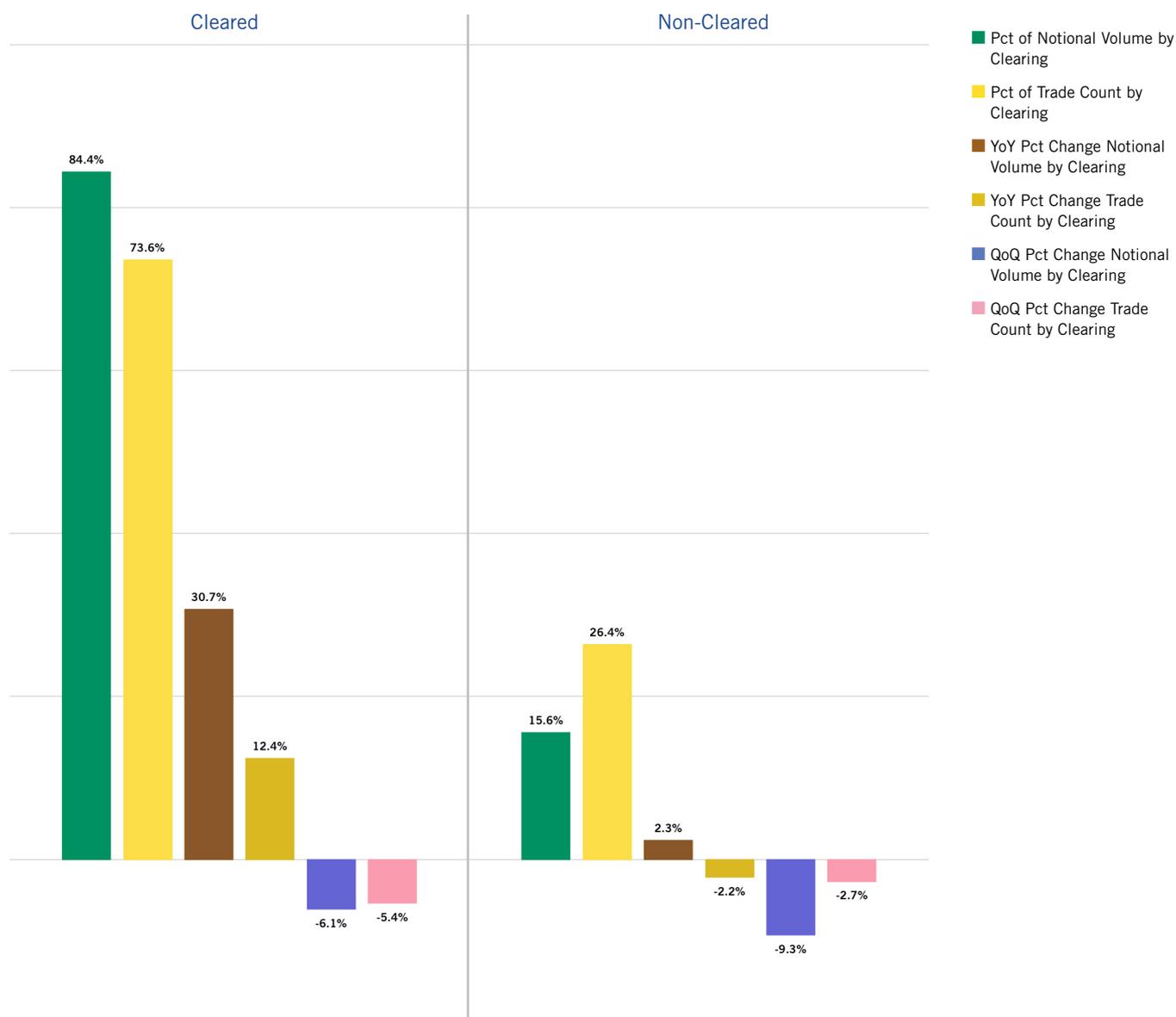
Middle Chart: The average number of cleared IRD transacted each day also rose. Since the start of the series, cleared trade counts increased by 23.1%, from 2,412 to 2,970 trades per day. Non-cleared IRD trade count fell by 18.5% (from 1,310 to 1,068) over the series.

Bottom Chart: Average trade size for cleared IRD transactions fell by 4.8% to \$174.5 million per trade between the first quarter of 2014 and the third quarter of 2016. The non-cleared average trade size also declined, falling by 5.7% to \$95.0 million per trade.

IRD STATISTICS: CLEARED, NON-CLEARED, TOTAL

		Cleared	Non-Cleared	Total	
Avg Daily Notional Volume by Clearing (US\$ billions)	2014	2014 Q1	478,723,706,003	134,381,559,742	605,625,207,839
		2014 Q2	442,023,342,918	108,450,058,934	550,473,401,852
		2014 Q3	403,753,996,921	114,136,170,380	517,890,167,301
		2014 Q4	387,447,065,533	144,260,918,212	531,707,983,745
	2015	2015 Q1	472,080,350,012	139,450,992,822	604,155,087,365
		2015 Q2	412,171,949,400	128,730,373,750	540,902,323,150
		2015 Q3	412,705,507,011	97,433,811,311	510,139,318,323
		2015 Q4	421,664,073,499	105,206,569,818	526,870,643,318
	2016	2016 Q1	510,109,057,860	106,161,065,725	608,422,291,926
		2016 Q2	574,459,456,461	109,885,715,694	684,345,172,155
		2016 Q3	539,561,944,485	99,710,326,597	639,272,271,082
	Avg Daily Trade Count by Clearing	2014	2014 Q1	2,412	1,310
2014 Q2			2,210	1,150	3,360
2014 Q3			2,336	1,293	3,628
2014 Q4			2,361	1,675	4,036
2015		2015 Q1	2,975	1,717	4,646
		2015 Q2	2,811	1,259	4,070
		2015 Q3	2,642	1,092	3,734
		2015 Q4	2,674	1,083	3,757
2016		2016 Q1	3,232	1,121	4,303
		2016 Q2	3,140	1,097	4,237
		2016 Q3	2,970	1,068	4,038
Avg Daily Trade Size Clearing (US\$ millions)		2014	2014 Q1	183,424,007	100,739,351
	2014 Q2		182,181,110	94,714,060	152,491,548
	2014 Q3		165,693,596	90,681,639	139,404,621
	2014 Q4		152,869,361	85,374,953	126,718,796
	2015	2015 Q1	147,507,404	81,788,103	123,579,665
		2015 Q2	136,998,615	103,050,416	128,228,060
		2015 Q3	146,839,411	89,356,779	130,811,075
		2015 Q4	143,654,215	95,662,415	130,555,417
	2016	2016 Q1	151,007,015	93,520,347	134,558,173
		2016 Q2	169,871,185	99,700,203	152,518,292
		2016 Q3	174,539,227	94,967,719	153,598,963

IRD STATISTICS: CLEARED, NON-CLEARED, TOTAL

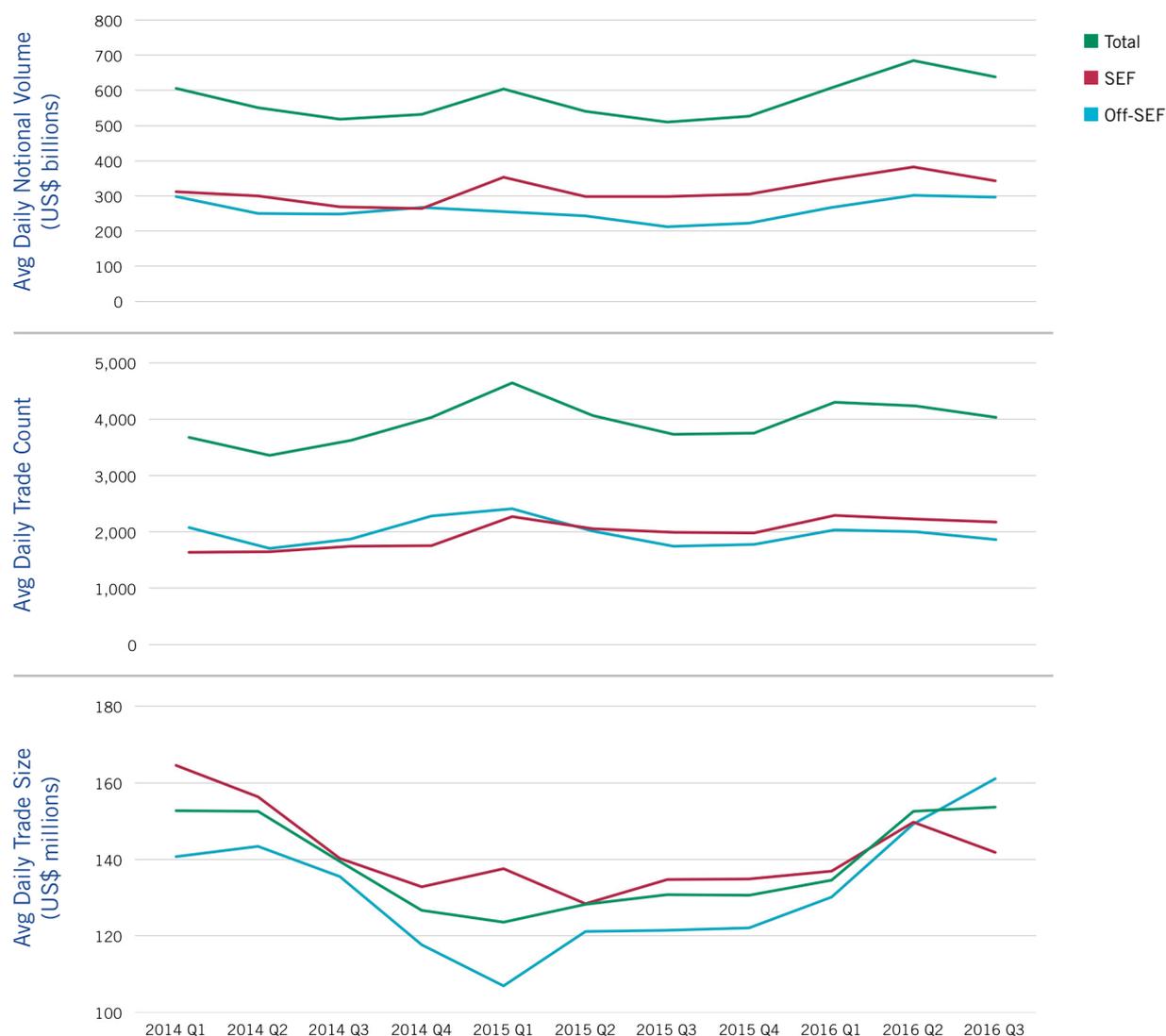


Left Panel: During the third quarter of 2016, cleared trades accounted for the majority of total average daily IRD volume: 84.4% of notionals and 73.6% of trade count, as shown by the green and yellow bars in the left panel.

Cleared average daily notional volume increased by 30.7% (from \$412.7 billion to \$539.6 billion, brown bar) when compared to the third quarter of 2015, while trade count rose by 12.4% (from 2,642 to 2,970, tan bar). While yearly figures rose, quarterly figures declined. Cleared notionals fell by 6.1% (from \$574.5 billion to \$539.6 billion, purple bar), while trade count was 5.4% lower (3,140 to 2,970, pink bar) versus the second quarter of 2016.

Right Panel: Changes in non-cleared trading are described in the right panel. Notional volume and trade count showed modest changes over the year, rising by 2.3% (from \$97.4 billion to \$99.7 billion, brown bar) and falling by 2.2% (from 1,092 to 1,068, tan bar), respectively. On a quarterly basis, non-cleared IRD notional volume declined by 9.3% (from \$109.9 billion to \$99.7 billion, purple bar), while trade count fell by 2.7% (from 1,097 to 1,068, pink bar).

IRD STATISTICS: SEF, OFF-SEF, TOTAL



Top Chart: SEF-traded IRD daily average notional volume grew by 9.5% between the first quarter of 2014 and the third quarter of 2016, from \$312.5 billion to \$342.3 billion, while notional volume executed off-venue was fairly stable, declining by only 0.3%, from \$298.0 billion to \$297.0 billion.

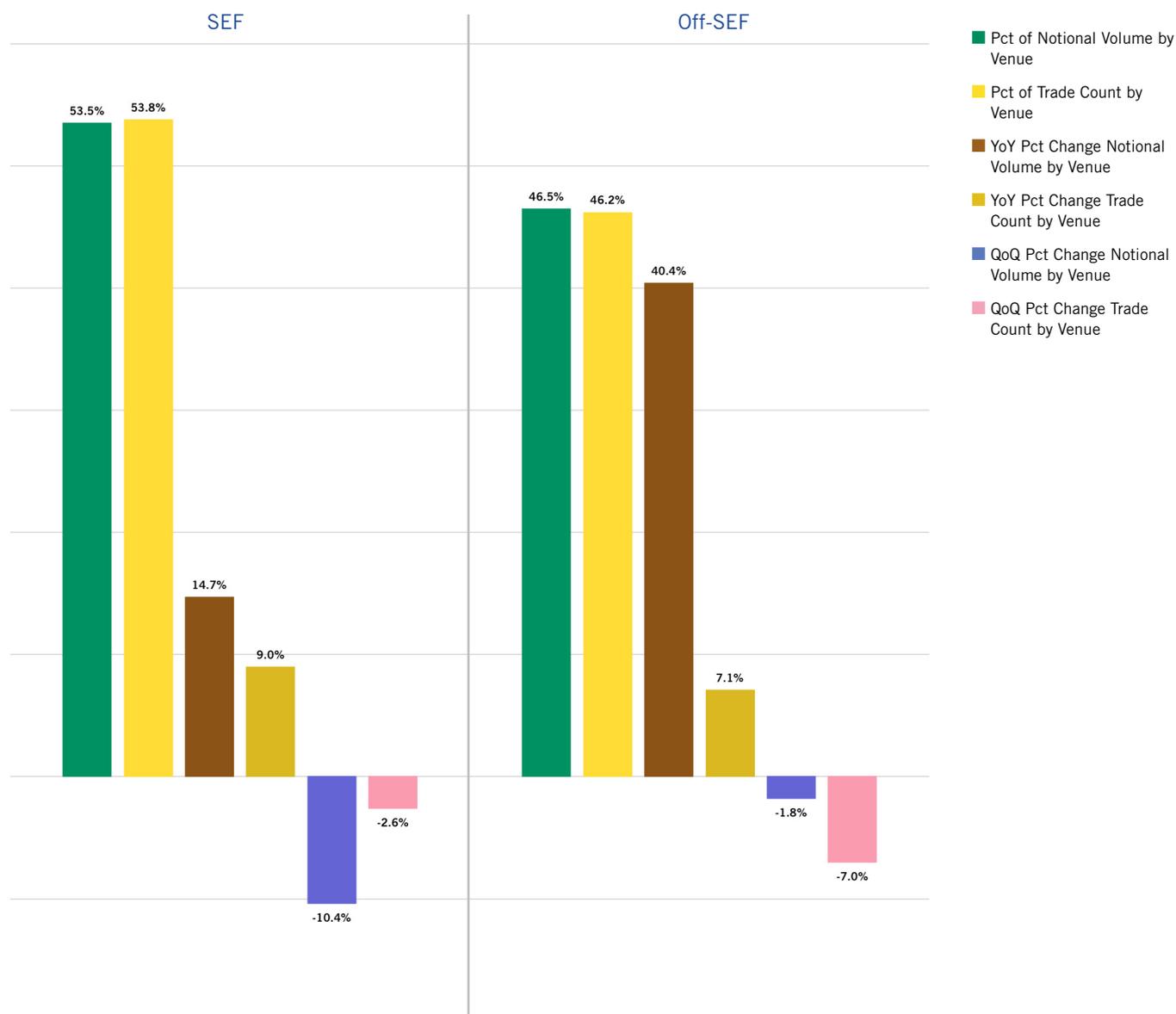
Middle Chart: The average number of trades transacted each day on an electronic venue also rose over time as IRD notionals increased. SEF-traded transactions rose by 32.8%, from 1,635 to 2,172 trades per day. Bilateral trade counts fell by 10.1% over the series, from 2,075 to 1,866 trades per day.

Bottom Chart: SEF-transacted average trade sizes have dropped by 13.8% since the first quarter of 2014 and reached \$141.9 million per trade in the third quarter of 2016. Off-venue trade sizes increased by 14.5% over the series, from \$140.7 million to \$161.1 million per trade.

IRD STATISTICS: SEF, OFF-SEF, TOTAL

		Off-SEF	SEF	Total	
Avg Daily Notional Volume by Venue (US\$ billions)	2014	2014 Q1	298,021,676,668	312,486,126,904	605,625,207,839
		2014 Q2	250,653,427,139	299,819,974,713	550,473,401,852
		2014 Q3	248,127,566,383	269,762,600,918	517,890,167,301
		2014 Q4	267,418,884,738	264,289,099,006	531,707,983,745
	2015	2015 Q1	255,544,994,296	354,143,586,610	604,155,087,365
		2015 Q2	243,258,011,169	297,644,311,981	540,902,323,150
		2015 Q3	211,618,081,144	298,521,237,179	510,139,318,323
		2015 Q4	222,487,037,295	304,383,606,023	526,870,643,318
	2016	2016 Q1	267,872,405,568	345,870,978,332	608,422,291,926
		2016 Q2	302,529,356,109	381,815,816,046	684,345,172,155
		2016 Q3	297,017,033,555	342,255,237,527	639,272,271,082
	Avg Daily Trade Count by Venue	2014	2014 Q1	2,075	1,635
2014 Q2			1,708	1,653	3,360
2014 Q3			1,879	1,749	3,628
2014 Q4			2,280	1,756	4,036
2015		2015 Q1	2,411	2,270	4,646
		2015 Q2	2,011	2,059	4,070
		2015 Q3	1,742	1,992	3,734
		2015 Q4	1,775	1,982	3,757
2016		2016 Q1	2,040	2,298	4,303
		2016 Q2	2,007	2,230	4,237
		2016 Q3	1,866	2,172	4,038
Avg Daily Trade Size Venue (US\$ millions)		2014	2014 Q1	140,662,027	164,579,639
	2014 Q2		143,346,071	156,288,384	152,491,548
	2014 Q3		135,576,289	140,202,701	139,404,621
	2014 Q4		117,652,597	132,772,826	126,718,796
	2015	2015 Q1	106,899,054	137,585,824	123,579,665
		2015 Q2	121,147,743	128,398,984	128,228,060
		2015 Q3	121,384,468	134,767,414	130,811,075
		2015 Q4	122,109,270	134,808,862	130,555,417
	2016	2016 Q1	130,179,663	136,863,020	134,558,173
		2016 Q2	149,173,802	149,740,776	152,518,292
		2016 Q3	161,064,256	141,860,306	153,598,963

IRD STATISTICS: SEF, OFF-SEF, TOTAL

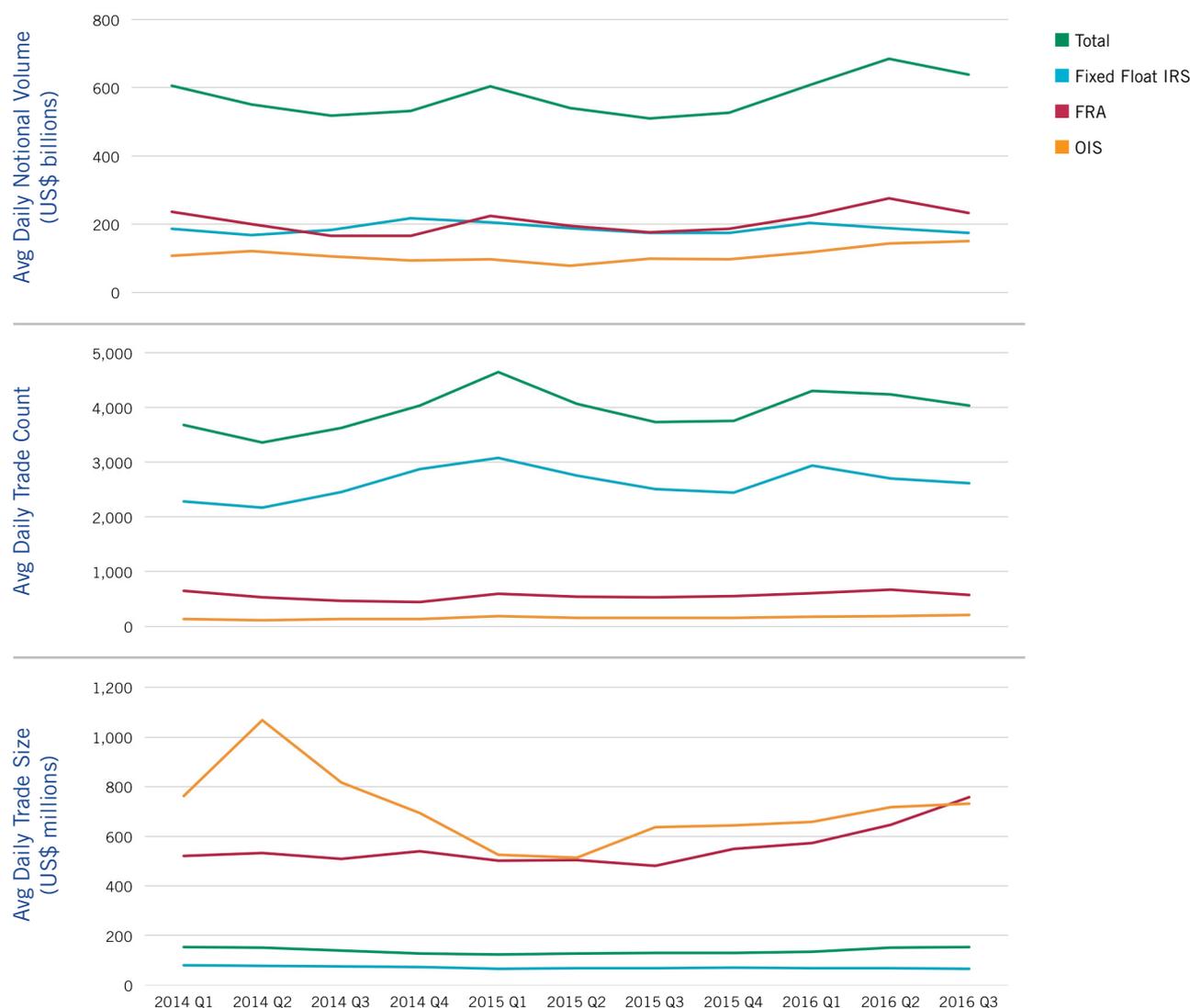


Left Panel: During the third quarter of 2016, trades occurring on SEFs accounted for over half of total IRD volume: 53.5% of notionals and 53.8% of trade count, as shown by the green and yellow bars in the left panel.

SEF average daily notional volume increased by 14.7%, from \$298.5 billion to \$342.3 billion (brown bar) when compared to the third quarter of 2015, while trade count climbed by 9.0%, from 1,992 to 2,172 trades per day (tan bar). Although yearly figures rose, SEF notionals and trade count declined by 10.4% (from \$381.8 billion to \$342.3 billion, purple bar) and by 2.6% (from 2,230 to 2,172, pink bar), respectively, on a quarterly basis.

Right Panel: Changes in off-SEF trends mimic the behavior of SEFs and are shown in the right panel. Notional volume and trade count figures rose, climbing by 40.4% (from \$211.6 billion to \$297.0 billion, brown bar) and by 7.1% (from 1,742 to 1,866, tan bar), respectively, versus the same period a year earlier. On a quarterly basis, off-venue swap notionals declined by 1.8% (from \$302.5 billion to \$297.0 billion, purple bar), while trade count fell by 7.0% (from 2,007 to 1,866, pink bar).

IRD STATISTICS: BY TAXONOMY



Top Chart: Overnight indexed swap (OIS) daily average notional volume rose by 41.2%, from \$107.0 billion to \$151.1 billion, between the first quarter of 2014 and the third quarter of 2016. During this time, fixed-floating interest rate swaps (IRS) and forward rate agreement (FRA) notional volume fell by 6.3% (from \$187.2 billion to \$175.4 billion) and by 1.5% (\$236.8 billion to \$233.3 billion), respectively.

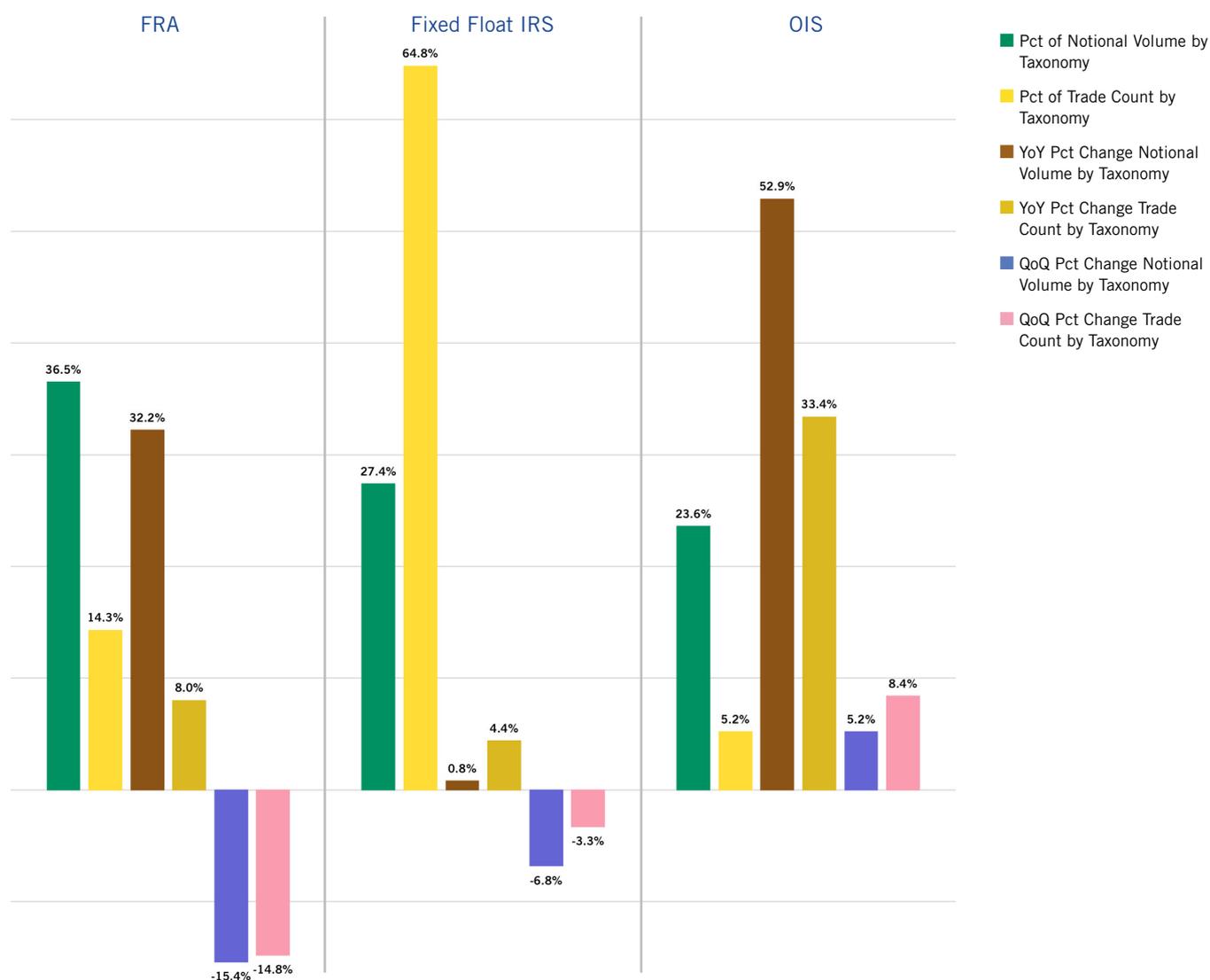
Middle Chart: The average number of trades transacted each day also increased for OIS, as well as fixed-floating IRS. OIS trade counts rose by 51.1%, from 139 to 210 trades per day, while fixed-floating IRS trade count grew by 14.7%, from 2,281 to 2,617. FRA trade counts declined by 11.1%, from 648 to 576 trades per day on average.

Bottom Chart: Daily average trade size jumped by 45.7% for FRA trades over the series, from \$520.3 million to \$758.1 million per trade. Average trade sizes fell by 17.1% for fixed-floating IRS (from \$81.0 million to \$67.1 million) and by 3.9% for OIS (from \$761.7 million to \$732.0 million) by the same measure.

IRD STATISTICS: BY TAXONOMY

		Fixed Float IRS	FRA	OIS	Total	
Avg Daily Notional Volume by Taxonomy (US\$ billions)	2014	2014 Q1	187,181,411,036	236,793,511,511	106,991,066,103	605,625,207,839
		2014 Q2	168,139,321,222	200,595,798,997	122,007,344,234	550,473,401,852
		2014 Q3	182,651,508,839	166,178,923,444	105,050,790,203	517,890,167,301
		2014 Q4	216,901,637,892	165,523,925,330	93,197,202,947	531,707,983,745
	2015	2015 Q1	205,144,970,162	224,964,106,502	96,652,418,224	604,155,087,365
		2015 Q2	188,306,702,956	195,465,638,340	78,093,758,973	540,902,323,150
		2015 Q3	173,912,732,161	176,497,353,115	98,815,040,293	510,139,318,323
		2015 Q4	175,143,388,729	186,679,843,418	96,765,611,567	526,870,643,318
	2016	2016 Q1	203,474,318,882	224,831,055,143	118,225,158,145	608,422,291,926
		2016 Q2	188,102,958,070	275,733,308,219	143,596,519,836	684,345,172,155
		2016 Q3	175,365,747,235	233,276,863,878	151,077,531,348	639,272,271,082
	Avg Daily Trade Count by Taxonomy	2014	2014 Q1	2,281	648	139
2014 Q2			2,170	536	113	3,360
2014 Q3			2,454	470	131	3,628
2014 Q4			2,876	444	138	4,036
2015		2015 Q1	3,076	600	187	4,646
		2015 Q2	2,758	548	161	4,070
		2015 Q3	2,507	534	158	3,734
		2015 Q4	2,446	550	154	3,757
2016		2016 Q1	2,937	612	180	4,303
		2016 Q2	2,707	677	194	4,237
		2016 Q3	2,617	576	210	4,038
Avg Daily Trade Size Taxonomy (US\$ millions)		2014	2014 Q1	80,968,760	520,287,075	761,714,261
	2014 Q2		77,414,116	532,485,790	1,066,577,169	152,491,548
	2014 Q3		74,513,333	509,693,801	815,890,562	139,404,621
	2014 Q4		74,301,798	539,558,747	692,768,460	126,718,796
	2015	2015 Q1	65,995,592	501,082,504	524,306,012	123,579,665
		2015 Q2	67,954,109	505,011,136	513,649,216	128,228,060
		2015 Q3	69,150,385	480,824,084	635,780,122	130,811,075
		2015 Q4	70,423,126	549,140,468	643,857,451	130,555,417
	2016	2016 Q1	69,131,495	573,580,052	657,252,603	134,558,173
		2016 Q2	69,458,202	647,138,490	716,406,524	152,518,292
		2016 Q3	67,091,728	758,071,219	732,013,269	153,598,963

IRD STATISTICS: BY TAXONOMY

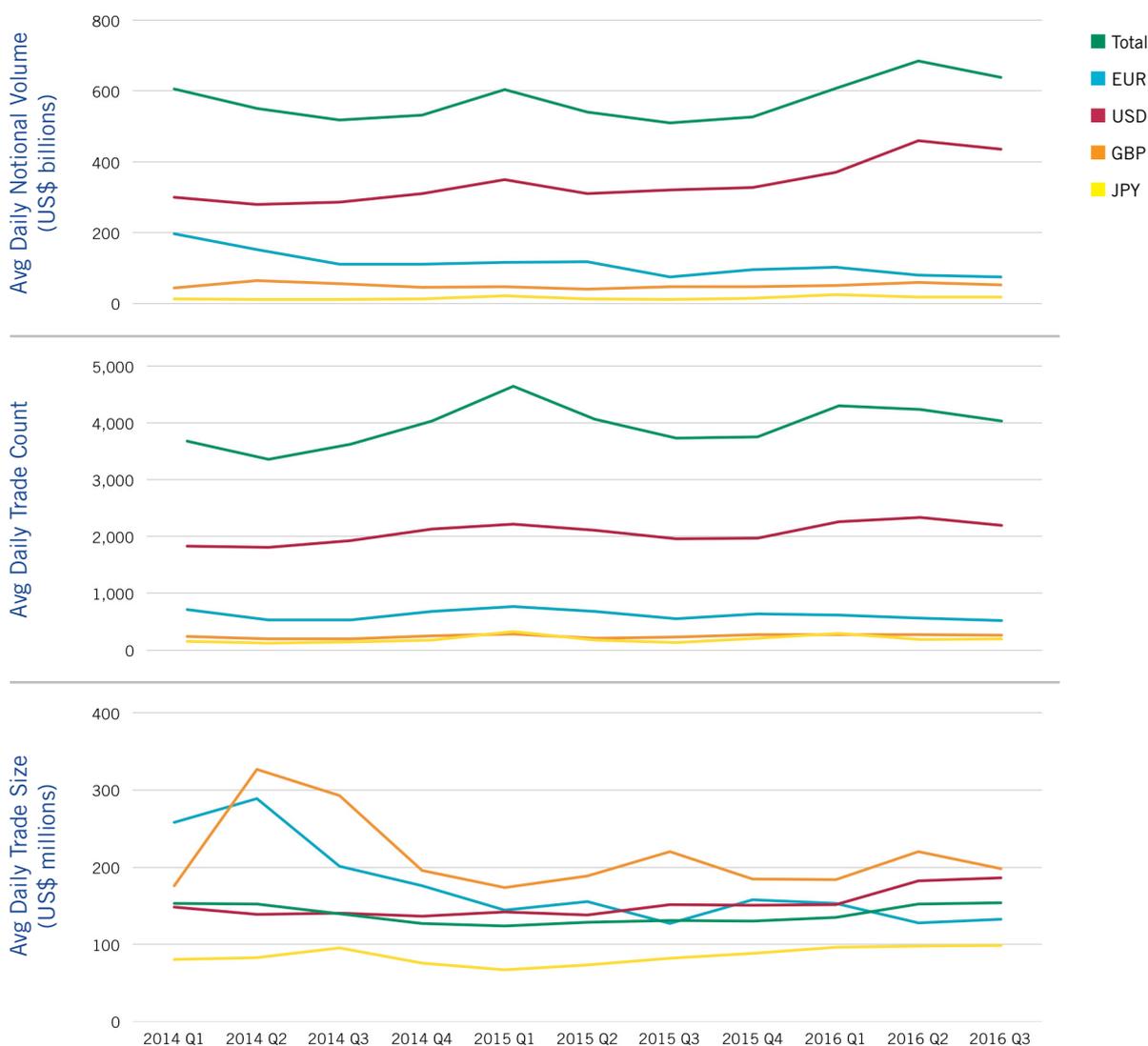


Left Panel: FRAs accounted for the largest share of IRD volume (36.5%, green bar) in the third quarter of 2016, but only 14.3% of trade count (yellow bar). While FRA volume increased year-over-year for both measures, rising by 32.2% (from \$176.5 billion to \$233.3 billion, brown bar) and by 8.0% (from 534 to 576, tan bar), respectively, quarterly volume declined. Since the second quarter of 2016, notional volume fell by 15.4% (from \$275.7 billion to \$233.3 billion, purple bar) and trade count was 14.8% lower (from 677 to 576, pink bar).

Middle Panel: Fixed-floating IRS represented the second largest portion of IRD notional volume by taxonomy (27.4%, green bar), but accounted for the largest share of trade count (64.8%, yellow bar). Fixed-floating swaps realized modest yearly increases to notionals and trade count, growing by only 0.8% (from \$173.9 billion to \$175.4 billion, brown bar) and by 4.4% (from 2,507 to 2,617, tan bar), respectively. Since the second quarter of the year, volume and trade count fell by 6.8% (from \$188.1 billion to \$175.4 billion, purple bar) and by 3.3% (from 2,707 to 2,617, pink bar), respectively.

Right Panel: OIS made up the smallest portion of IRD market share (23.6% by volume, green bar) and 5.2% by trade count (yellow bar). Since the third quarter of 2015, OIS volume increased by 52.9% (from \$98.8 billion to \$151.1 billion, brown bar) and trade count increased by 33.4% (from 158 to 210, tan bar). These measures also grew since the second quarter of 2016, rising by 5.2% (from \$143.6 billion to \$151.1 billion, purple bar) and by 8.4% (from 194 to 210, pink bar), respectively.

IRD STATISTICS: BY CURRENCY



Top Chart: Daily average notional volume rose for three of the four G-4 currencies between the first quarter of 2014 and the third quarter of 2016. Euro-denominated IRD volume fell by 62.3%, from \$196.9 billion to \$74.2 billion. During this time, US dollar IRD volume rose by 45.3% (from \$300.2 billion to \$436.2 billion), sterling volume increased by 19.1% (from \$44.4 billion to \$52.8 billion) and yen volume increased by 36.3% (from \$13.2 billion to \$18.1 billion).

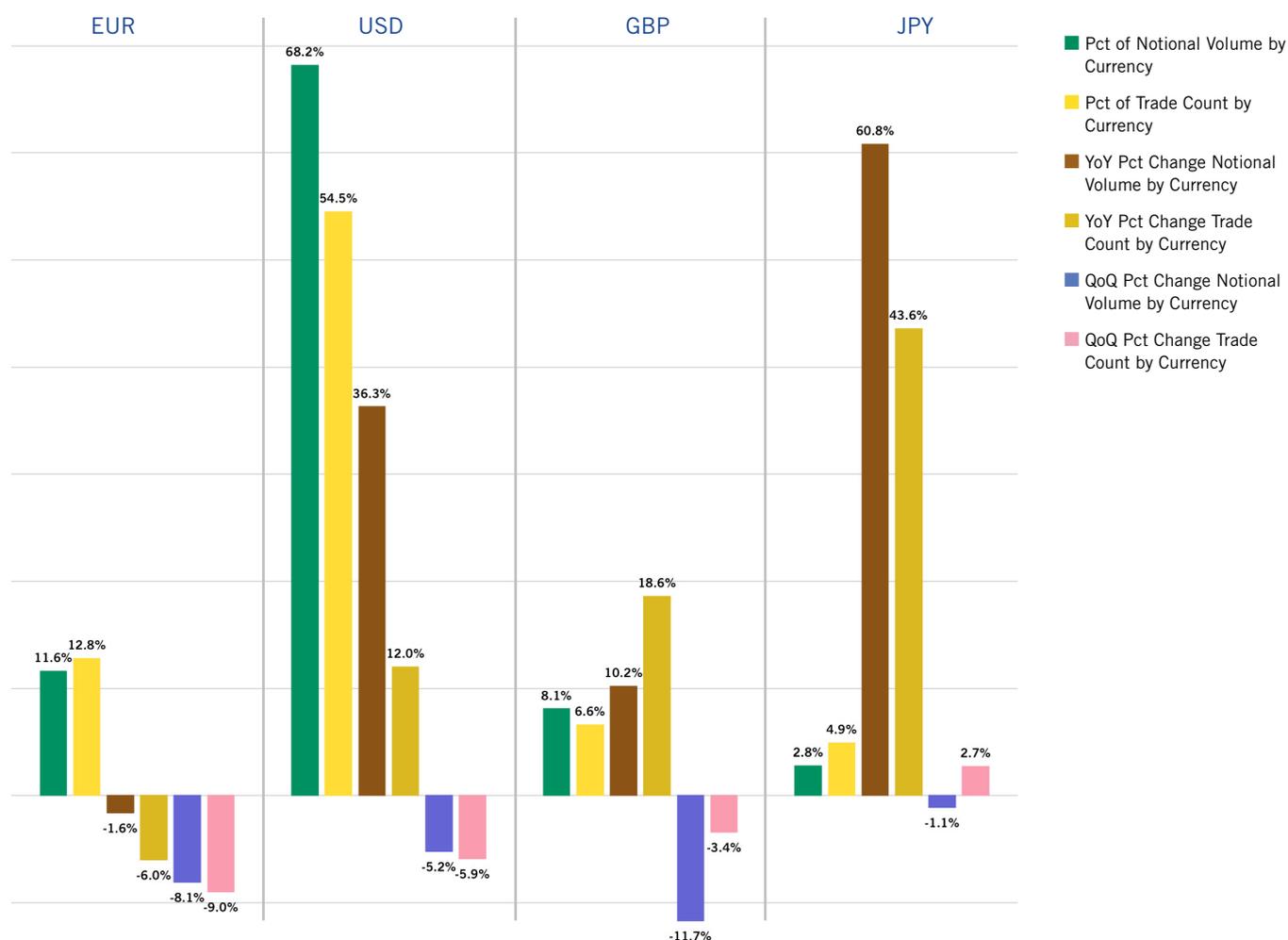
Middle Chart: Changes in trade count by currency mimicked notional volume during this time. Euro-denominated average daily trade count fell from 716 to 517 trades per day, a decline of 27.8%. US dollar-denominated trade count grew by 20.3% (from 1,830 to 2,201), sterling increased by 8.5% (from 248 to 269) and yen rose by 27.9% (from 154 to 197).

Bottom Chart: IRD average daily trade size tracked volume and trade count trends over the series. Euro-denominated trade sizes were 48.5% smaller (from \$258.0 million to \$132.8 million), while trades sizes were larger across US dollar (by 25.8%, from \$147.9 million to \$186.1 million), sterling (by 12.4%, from \$176.2 million to \$198.0 million) and yen (by 22.9%, from \$80.3 million to \$98.6 million) swaps.

IRD STATISTICS: BY CURRENCY

		EUR	USD	GBP	JPY	Total	
Avg Daily Notional Volume by Currency (US\$ billions)	2014	2014 Q1	196,898,324,548	300,193,496,056	44,352,657,143	13,245,701,855	605,625,207,839
		2014 Q2	152,257,632,163	279,780,259,606	65,144,827,106	10,675,217,842	550,473,401,852
		2014 Q3	110,398,313,390	286,265,537,724	55,242,951,422	12,140,216,151	517,889,887,000
		2014 Q4	111,045,306,280	310,373,944,354	46,174,148,894	13,540,536,235	531,707,983,745
	2015	2015 Q1	116,690,444,240	349,330,465,137	47,943,022,351	20,871,642,789	604,155,087,365
		2015 Q2	118,329,673,521	309,772,804,990	40,281,855,646	13,190,249,102	540,902,323,150
		2015 Q3	75,458,604,301	320,061,362,528	47,924,500,457	11,229,965,869	510,139,142,021
		2015 Q4	96,083,210,076	327,843,444,149	48,250,572,878	15,594,483,312	526,870,643,318
	2016	2016 Q1	102,629,484,194	369,947,947,931	50,869,973,175	25,409,144,905	608,422,291,926
		2016 Q2	80,748,279,101	460,059,744,087	59,819,521,034	18,260,446,225	684,345,172,155
		2016 Q3	74,239,562,627	436,242,933,074	52,803,479,871	18,059,232,881	639,272,271,082
	Avg Daily Trade Count by Currency	2014	2014 Q1	716	1,830	248	154
2014 Q2			534	1,807	202	124	3,360
2014 Q3			535	1,928	197	144	3,628
2014 Q4			681	2,132	256	174	4,036
2015		2015 Q1	774	2,219	282	324	4,646
		2015 Q2	680	2,113	209	176	4,070
		2015 Q3	550	1,966	227	137	3,734
		2015 Q4	637	1,974	272	210	3,757
2016		2016 Q1	615	2,260	276	293	4,303
		2016 Q2	568	2,338	279	192	4,237
		2016 Q3	517	2,201	269	197	4,038
Avg Daily Trade Size Currency (US\$ millions)		2014	2014 Q1	258,004,167	147,929,751	176,206,269	80,259,630
	2014 Q2		289,139,076	138,611,832	326,730,176	83,196,723	152,491,548
	2014 Q3		201,355,591	140,409,529	293,075,075	95,308,593	139,406,447
	2014 Q4		175,813,300	136,290,659	195,771,468	75,677,489	126,718,796
	2015	2015 Q1	144,446,367	142,013,023	173,310,174	66,867,419	123,579,665
		2015 Q2	155,480,544	138,424,215	188,862,040	73,359,307	128,228,060
		2015 Q3	127,105,678	151,366,986	220,293,765	82,384,692	130,812,265
		2015 Q4	157,515,866	150,477,088	184,479,590	88,652,120	130,555,417
	2016	2016 Q1	152,733,311	151,230,290	183,731,167	95,877,881	134,558,173
		2016 Q2	127,700,002	182,124,643	220,211,602	98,029,545	152,518,292
		2016 Q3	132,785,700	186,121,824	198,039,133	98,618,741	153,598,963

IRD STATISTICS: BY CURRENCY



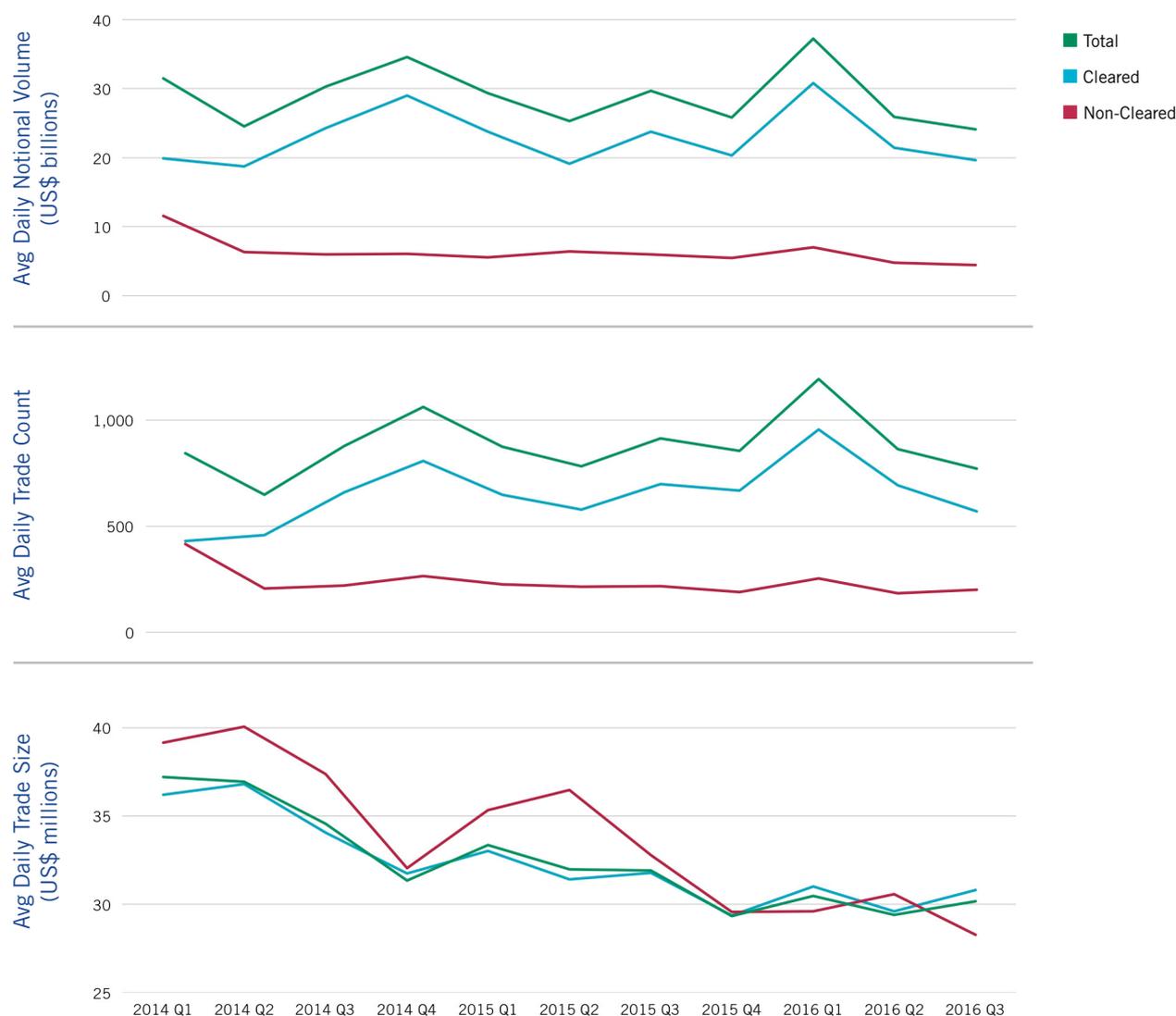
Left Panel: Euro-denominated swaps accounted for the second largest percentage of G-4 average daily volume and trade count (11.6% and 12.8%, respectively) in the third quarter of 2016. These measures declined versus the prior year by 1.6% (from \$75.5 billion to \$74.2 billion, brown bar) and by 6.0% (from 550 to 517, tan bar). They also declined on a quarterly basis, with notional volume contracting by 8.1% (from \$80.7 billion to \$74.2 billion, purple bar) and trade count decreasing by 9.0% (from 568 to 517, pink bar).

Center Left Panel: US dollar-denominated IRD made up the majority of average daily notional volume and trade count – 68.2% and 54.5% (green, yellow bars), respectively. Since the third quarter of 2015, daily notional volume has increased by 36.3% (from \$320.0 billion to \$436.2 billion, brown bar) and trade count grew by 12.0% (from 1,966 to 2,201, tan bar). These measures fell since the second quarter of 2016, by 5.2% (from \$460.1 billion to \$436.2 billion, purple bar) and by 5.9% (from 2,338 to 2,201, pink bar).

Center Right Panel: Sterling IRD represented 8.1% of notionals (green bar) and 6.6% of trade count (yellow bar). Like US dollar IRD, volume and trade count increased over the year – by 10.2% (from \$47.9 billion to \$52.8 billion, brown bar) and by 18.6% (from 227 to 269, tan bar) – but fell since the second quarter of 2016, by 11.7% (from \$59.8 billion to \$52.8 billion, purple bar) and by 3.4% (from 279 to 269, pink bar).

Right Panel: Yen swaps represented the smallest percentage of average daily volume and trade count among the G-4 currencies, making up 2.8% (green bar) and 4.9% (yellow bar), respectively. On an annual basis, volume rose by 60.8% (from \$11.2 billion to \$18.1 billion, brown bar), while trade count increased by 43.6% (from 137 to 197, tan bar). Volume decreased modestly since the second quarter of 2016, falling by 1.1% (from \$18.3 billion to \$18.1 billion, purple bar) as trade count rose by 2.7% (from 192 to 197, pink bar).

INDEX CDS STATISTICS: CLEARED, NON-CLEARED, TOTAL



Total CDS index average daily volume fell during the third quarter of 2016, from \$31.5 billion to \$24.1 billion, a decrease of 23.5% since the first quarter of 2014. Likewise, average daily trade counts fell by 8.7%, from 843 to 770 trades per day, while average trade size decreased by 19.0% to \$30.2 million (down from \$37.2 million) during this time.

Top Chart: Daily average cleared notional volume modestly contracted by 1.2%, from \$19.9 billion to \$19.6 billion, between the first quarter of 2014 and the third quarter of 2016. Over this period, non-cleared notional volume fell from \$11.6 billion to \$4.4 billion, a decrease of 61.7%.

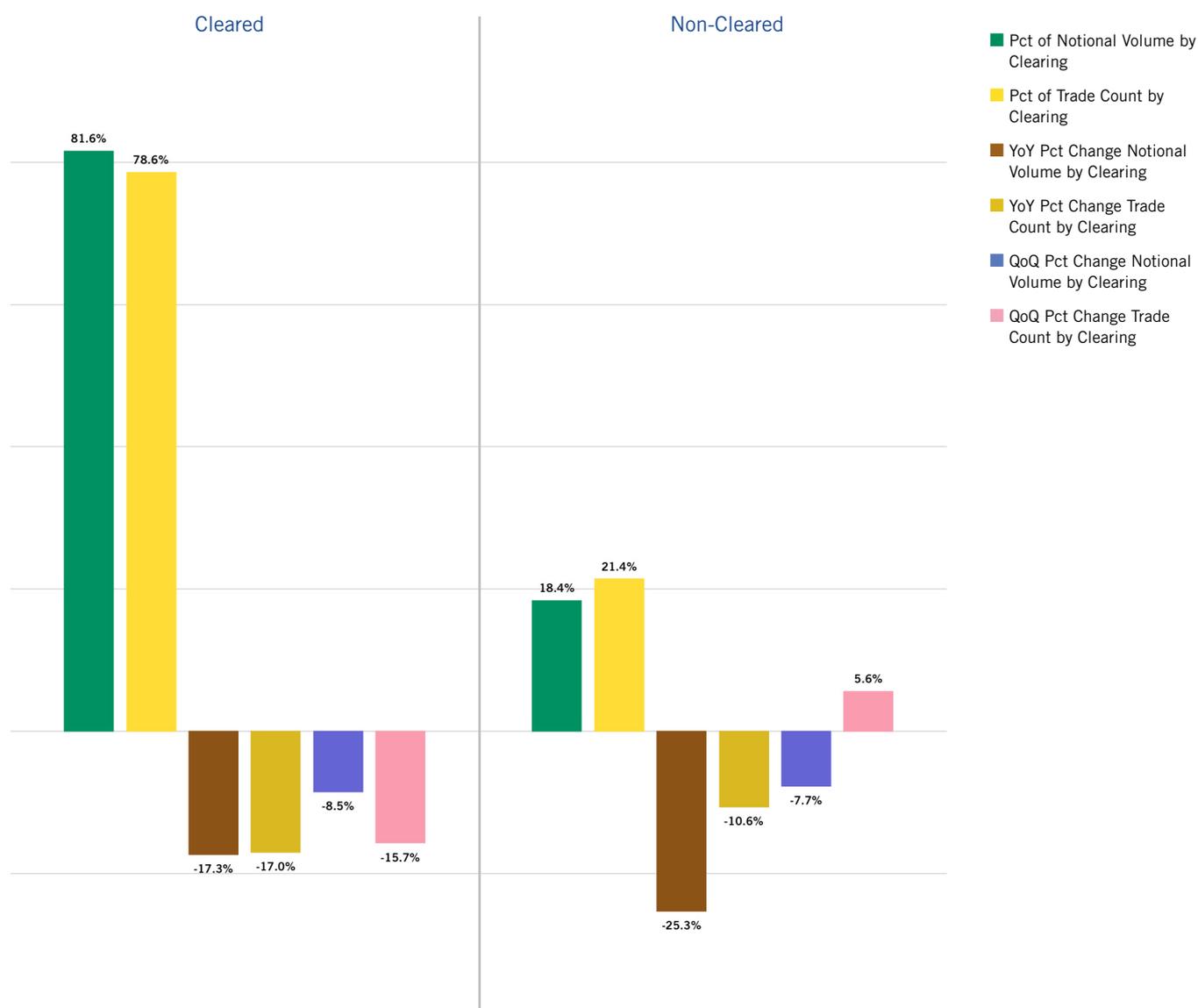
Middle Chart: The average number of cleared trades transacted each day rose as smaller, more frequent trades were transacted. Since the start of the series, cleared trade counts increased by 11.4%, from 543 to 605 trades per day. Non-cleared trade counts fell by 45.0%, from 300 to 165, over the series.

Bottom Chart: Total average daily trade size for cleared transactions fell by 14.9%, from \$36.2 million to \$30.8 million per trade over the series. Non-cleared average daily trade size also declined, falling by 27.8% from \$39.1 million to \$28.3 million.

INDEX CDS STATISTICS: CLEARED, NON-CLEARED, TOTAL

		Cleared	Non-Cleared	Total	
Avg Daily Notional Volume by Clearing (US\$ billions)	2014	2014 Q1	19,887,082,441	11,590,622,111	31,477,704,552
		2014 Q2	18,738,453,279	6,337,154,524	24,499,040,010
		2014 Q3	24,320,736,335	6,017,130,543	30,337,866,878
		2014 Q4	28,976,158,264	6,042,681,902	34,579,807,465
	2015	2015 Q1	23,751,067,897	5,559,608,393	29,310,676,290
		2015 Q2	19,152,512,607	6,414,479,780	25,272,338,346
		2015 Q3	23,739,255,021	5,944,115,020	29,683,370,040
		2015 Q4	20,373,014,886	5,457,058,431	25,830,073,317
	2016	2016 Q1	30,784,136,442	7,031,475,804	37,233,833,596
		2016 Q2	21,467,041,439	4,809,612,263	25,946,391,527
		2016 Q3	19,641,574,985	4,437,416,947	24,078,991,932
	Avg Daily Trade Count by Clearing	2014	2014 Q1	543	300
2014 Q2			506	156	647
2014 Q3			711	164	876
2014 Q4			878	195	1,059
2015		2015 Q1	711	161	872
		2015 Q2	616	174	780
		2015 Q3	729	185	913
		2015 Q4	671	183	854
2016		2016 Q1	971	240	1,192
		2016 Q2	718	156	863
		2016 Q3	605	165	770
Avg Daily Trade Size Clearing (US\$ millions)		2014	2014 Q1	36,207,211	39,149,421
	2014 Q2		36,820,750	40,068,666	36,943,456
	2014 Q3		34,052,412	37,380,650	34,552,860
	2014 Q4		31,723,689	32,048,921	31,340,667
	2015	2015 Q1	33,010,656	35,313,969	33,340,381
		2015 Q2	31,402,922	36,482,964	31,981,754
		2015 Q3	31,776,251	32,778,394	31,913,428
		2015 Q4	29,350,006	29,544,019	29,320,932
	2016	2016 Q1	31,017,739	29,593,188	30,473,211
		2016 Q2	29,598,023	30,569,256	29,389,110
		2016 Q3	30,813,035	28,262,699	30,156,861

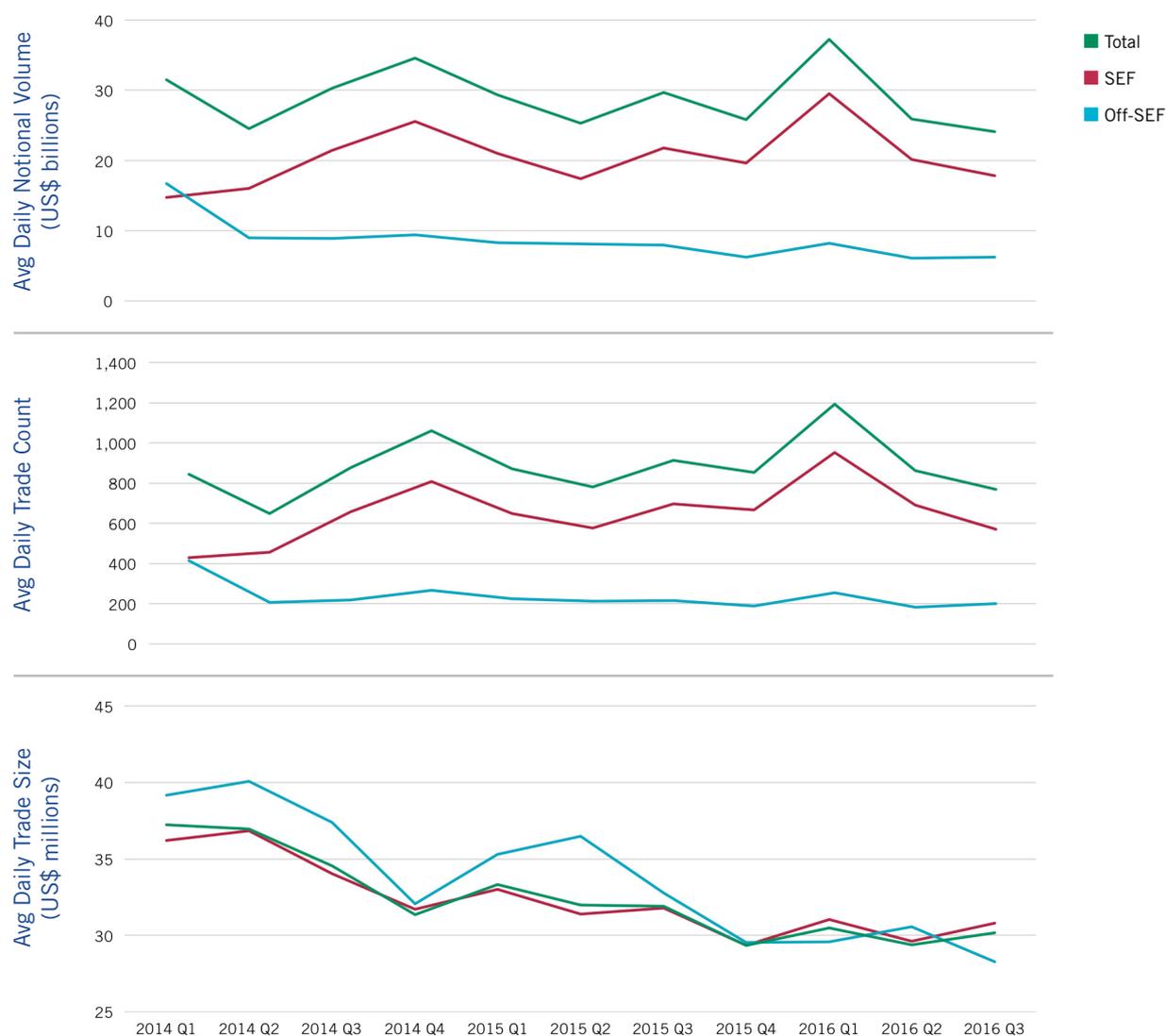
INDEX CDS STATISTICS: CLEARED, NON-CLEARED, TOTAL



Left Panel: Cleared trades accounted for the majority of total average daily CDS index volume in the third quarter of 2016: 81.6% of notional volume and 78.6% of trade count, as shown by the green and yellow bars in the left panel. Cleared average daily notional volume (brown bar) decreased by 17.3%, from \$23.7 billion to \$19.6 billion, when compared to the third quarter of 2015, while trade count (tan bar) fell by 17.0%, from 729 to 605 trades per day. Quarterly figures declined in tandem with annual measures. Cleared notionals (purple bar) fell by 8.5%, from \$21.5 billion to \$19.6 billion, while trade count (pink bar) was 15.7% lower, falling from 718 to 605 trades per day, versus the second quarter of 2016.

Right Panel: Changes in non-cleared trading mostly mirrored changes in cleared trends, as shown by the right panel. Notional volume and trade count also fell over the year, declining by roughly 25.3% (from \$5.9 billion to \$4.4 billion, brown bar) and by 10.6% (from 185 to 165, tan bar), respectively. On a quarterly basis, non-cleared swap notionals declined by 7.7% (from \$4.8 billion to \$4.4 billion, purple bar), while trade count rose by 5.6% (from 156 to 165, pink bar).

INDEX CDS STATISTICS: SEF, OFF-SEF, TOTAL



Top Chart: SEF-traded CDS index daily average notional volume grew by 21.2% between the first quarter of 2014 and the third quarter of 2016, from \$14.7 billion to \$17.8 billion, while off-SEF notionals fell by 67.2%, from \$16.8 billion to \$6.2 billion.

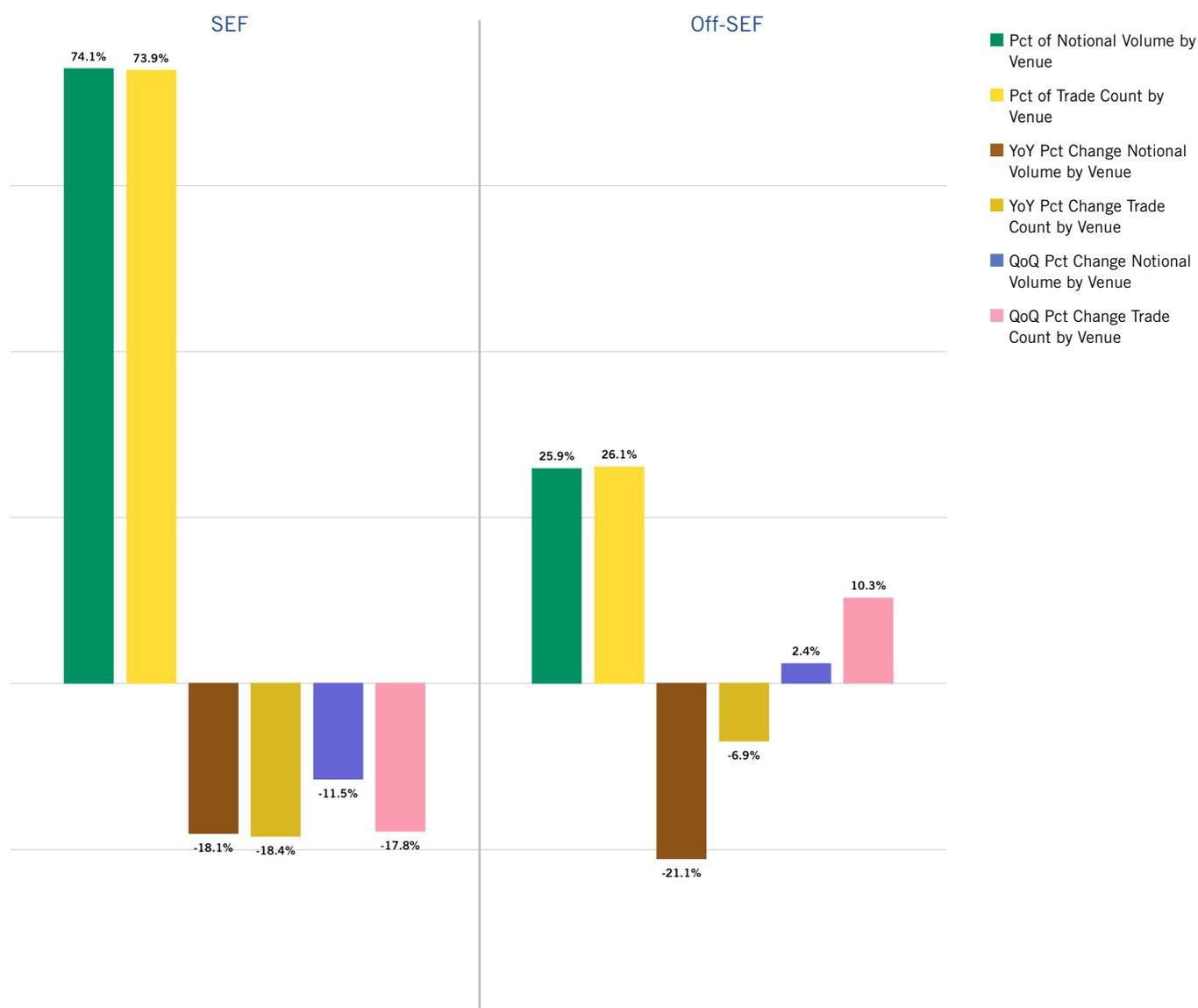
Middle Chart: The average number of trades transacted on a SEF each day also rose over time as notional volume increased. Trade count increased by 32.9%, from 428 to 569 trades per day. Off-SEF trade count fell by 51.6% (from 415 to 201) over the series.

Bottom Chart: Total average daily trade size decreased both on- and off-SEF since the first quarter of 2014. SEF-traded transactions became 11.4% smaller and are now roughly \$29.6 million per trade versus \$33.4 million previously. Off-venue trade sizes decreased by 22.4%, from \$40.8 million to \$31.7 million.

INDEX CDS STATISTICS: SEF, OFF-SEF, TOTAL

		SEF	Off-SEF	Total	
Avg Daily Notional Volume by Venue (US\$ billions)	2014	2014 Q1	14,717,510,556	16,760,193,996	31,477,704,552
		2014 Q2	15,997,934,997	8,993,349,167	24,999,040,010
		2014 Q3	21,450,898,634	8,886,968,244	30,337,866,878
		2014 Q4	25,553,565,201	9,413,417,494	34,579,807,465
	2015	2015 Q1	21,045,221,098	8,265,455,192	29,310,676,290
		2015 Q2	17,419,142,947	8,121,182,214	25,272,338,346
		2015 Q3	21,766,045,902	7,917,324,139	29,683,370,040
		2015 Q4	19,633,215,361	6,196,857,956	25,830,073,317
	2016	2016 Q1	29,499,199,882	8,188,467,558	37,233,833,596
		2016 Q2	20,157,199,138	6,099,303,145	25,946,391,527
		2016 Q3	17,833,368,988	6,245,622,944	24,078,991,932
	Avg Daily Trade Count by Venue	2014	2014 Q1	428	415
2014 Q2			456	205	647
2014 Q3			657	219	876
2014 Q4			807	265	1,059
2015		2015 Q1	647	225	872
		2015 Q2	576	213	780
		2015 Q3	697	216	913
		2015 Q4	666	188	854
2016		2016 Q1	953	254	1,192
		2016 Q2	691	182	863
		2016 Q3	569	201	770
Avg Daily Trade Size Venue (US\$ millions)		2014	2014 Q1	33,419,542	40,780,052
	2014 Q2		34,876,095	43,344,035	36,943,456
	2014 Q3		32,455,351	40,937,800	34,552,860
	2014 Q4		30,352,047	35,669,383	31,340,667
	2015	2015 Q1	32,028,056	37,400,820	33,340,381
		2015 Q2	30,564,130	37,496,824	31,981,754
		2015 Q3	30,428,147	36,745,936	31,913,428
		2015 Q4	28,599,043	32,433,827	29,320,932
	2016	2016 Q1	30,601,485	31,830,136	30,473,211
		2016 Q2	28,815,600	33,117,313	29,389,110
		2016 Q3	29,622,454	31,660,438	30,156,861

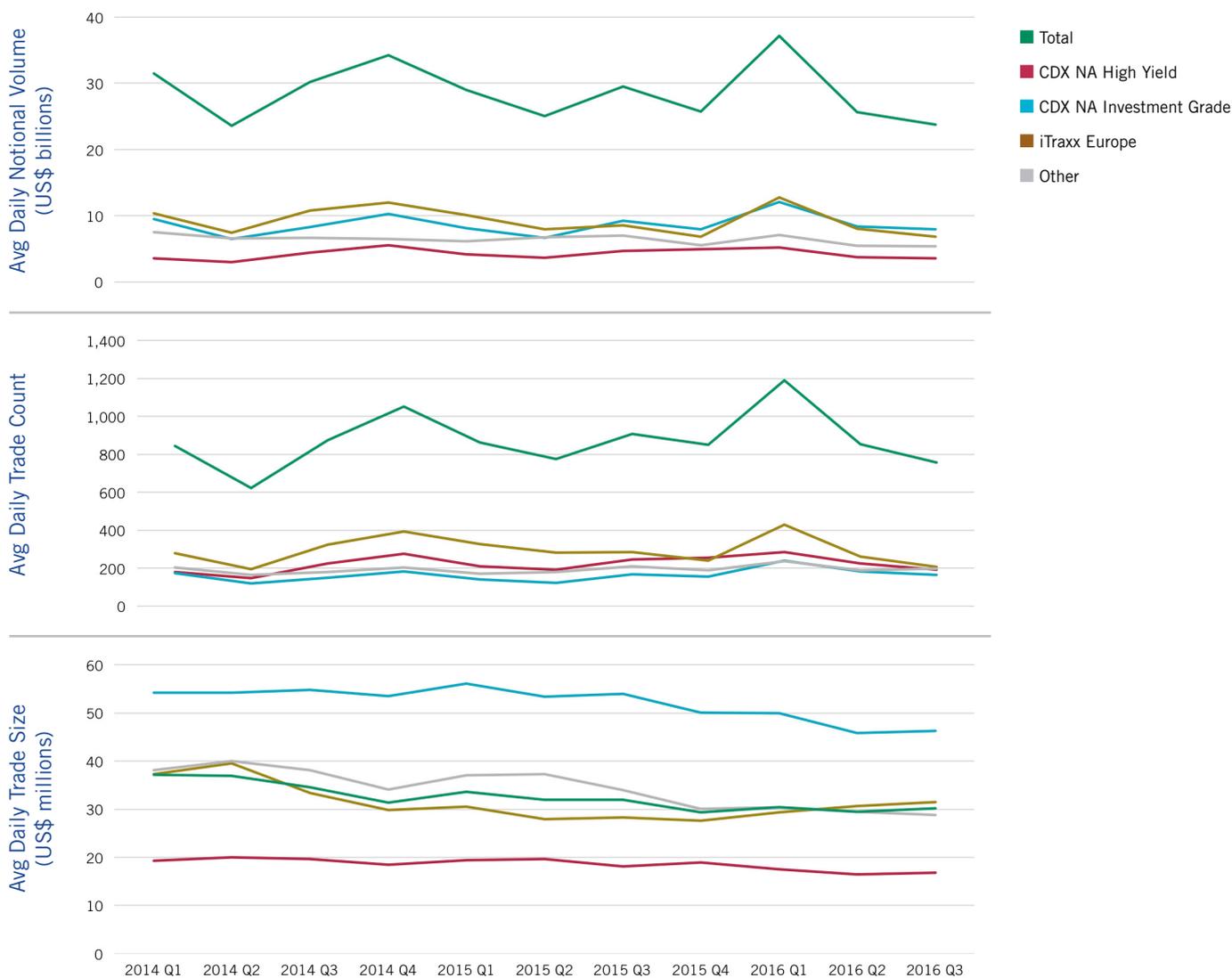
INDEX CDS STATISTICS: SEF, OFF-SEF, TOTAL



Left Panel: Trades executed on SEFs accounted for nearly three-quarters of total CDS index volume in the third quarter of 2016: 74.1% of notional volume and 73.9% of trade count, as shown by the green and yellow bars in the left panel. SEF average daily notional volume decreased by 18.1% (from \$21.8 billion to \$17.8 billion, brown bar), while trade count fell by 18.4% (from 697 to 569, tan bar) when compared to the third quarter of 2015. Electronically traded volume also fell on a quarterly basis, with notional volume declining by 11.5% (from \$20.2 billion to \$17.8 billion, purple bar) and trade count falling by 17.8% (from 691 to 569, pink bar).

Right Panel: Changes in off-SEF trends are shown in the right panel. Notional volume and trade-count figures also fell on an annual basis, dropping by 21.1% (from \$7.9 billion to \$6.2 billion, brown bar) and by 6.9% (from 216 to 201, tan bar), respectively, versus the same period a year earlier. On a quarterly basis, off-venue swap notionals grew by 4% (from \$6.1 billion to \$6.2 billion, purple bar), while trade count rose by 10.3% (from 182 to 201 trades per day, pink bar).

INDEX CDS STATISTICS: BY TAXONOMY



Top Chart: Daily average notional volume fell for each major CDS index taxonomy between the first quarter of 2014 and the third quarter of 2016: CDX High Yield (by 0.1%, from \$3.56 billion to \$3.55 billion); CDX Investment Grade (by 16.4%, from \$9.5 billion to \$8.0 billion); and aggregated iTraxx Europe* (by 34.1%, from \$10.4 billion to \$6.8 billion) indices.

Middle Chart: During this time, trade count rose for the CDX High Yield index, increasing by 6.7%, from 178 to 190 trades per day. The average number of transactions per day fell for the CDX investment Grade index (by 4.7%, from 172 to 164) and for the aggregated iTraxx Europe index (by 25.5%, from 278 to 207).

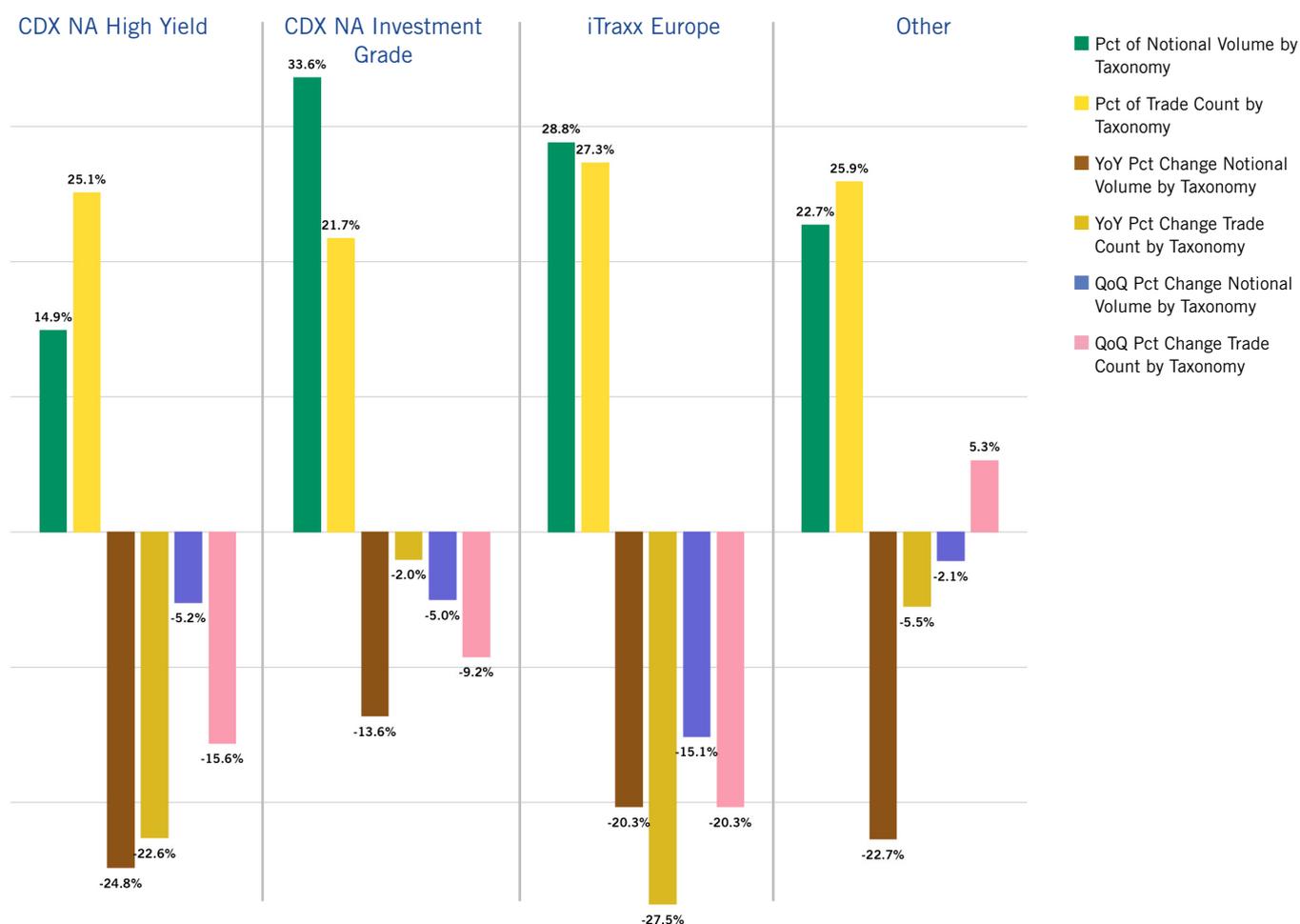
Bottom Chart: Average trade size fell over the series for each major index. Average trade size estimates declined by 13.1%, from roughly \$19.3 million to \$16.8 million, for CDX High Yield transactions; by 14.6%, from \$54.2 million to \$46.2 million, for CDX Investment Grade index; and by 15.5%, from \$37.2 million to \$31.5 million, for the aggregated iTraxx Europe index.

*The aggregate iTraxx Europe index includes the iTraxx Europe main, Senior Financials, and Crossover indices

INDEX CDS STATISTICS: BY TAXONOMY

		CDX NA High Yield	CDX NA Investment Grade	iTraxx Europe	Other	Total	
Avg Daily Notional Volume by Taxonomy (US\$ billions)	2014	2014 Q1	3,549,709,297	9,527,338,228	10,379,557,761	7,529,260,132	31,477,704,552
		2014 Q2	3,001,469,351	6,478,791,149	7,461,773,419	6,621,425,550	23,563,459,468
		2014 Q3	4,447,316,511	8,298,696,142	10,830,705,172	6,639,376,865	30,216,094,689
		2014 Q4	5,535,166,912	10,262,687,807	11,963,194,767	6,528,981,766	34,290,031,252
	2015	2015 Q1	4,179,839,584	8,147,245,156	10,105,001,968	6,131,936,700	29,017,420,605
		2015 Q2	3,688,102,406	6,644,485,571	7,945,481,483	6,787,265,669	25,065,335,129
		2015 Q3	4,714,281,179	9,215,008,712	8,580,689,082	6,976,882,507	29,486,861,480
		2015 Q4	4,943,330,347	7,974,025,682	6,808,232,528	5,586,333,814	25,701,336,561
	2016	2016 Q1	5,215,779,383	12,040,159,297	12,744,260,466	7,132,450,519	37,132,649,664
		2016 Q2	3,740,764,425	8,380,629,946	8,049,066,415	5,504,028,575	25,674,489,360
		2016 Q3	3,545,320,323	7,963,269,068	6,835,439,659	5,390,087,300	23,734,116,350
	Avg Daily Trade Count by Taxonomy	2014	2014 Q1	178	172	278	203
2014 Q2			147	118	193	164	622
2014 Q3			224	148	323	178	873
2014 Q4			275	181	393	202	1,050
2015		2015 Q1	209	139	327	171	861
		2015 Q2	191	122	282	180	775
		2015 Q3	246	168	286	208	908
		2015 Q4	255	155	238	189	850
2016		2016 Q1	285	239	430	236	1,189
		2016 Q2	225	181	260	187	853
		2016 Q3	190	164	207	197	758
Avg Daily Trade Size Taxonomy (US\$ millions)		2014	2014 Q1	19,284,965	54,184,067	37,248,635	38,079,213
	2014 Q2		19,987,828	54,201,421	39,562,616	39,968,701	36,960,777
	2014 Q3		19,663,970	54,810,290	33,420,808	38,166,299	34,503,501
	2014 Q4		18,497,743	53,460,692	29,850,748	34,132,954	31,323,802
	2015	2015 Q1	19,443,118	56,099,805	30,564,455	36,987,295	33,582,716
		2015 Q2	19,625,875	53,413,374	27,969,509	37,259,505	31,930,276
		2015 Q3	18,104,427	54,026,041	28,231,648	33,947,786	31,903,187
		2015 Q4	18,960,926	50,023,959	27,611,354	30,051,489	29,310,018
	2016	2016 Q1	17,518,543	49,944,017	29,337,499	30,463,754	30,468,994
		2016 Q2	16,429,330	45,831,817	30,665,955	29,412,308	29,410,715
		2016 Q3	16,763,716	46,248,418	31,466,593	28,800,170	30,142,237

INDEX CDS STATISTICS: BY TAXONOMY



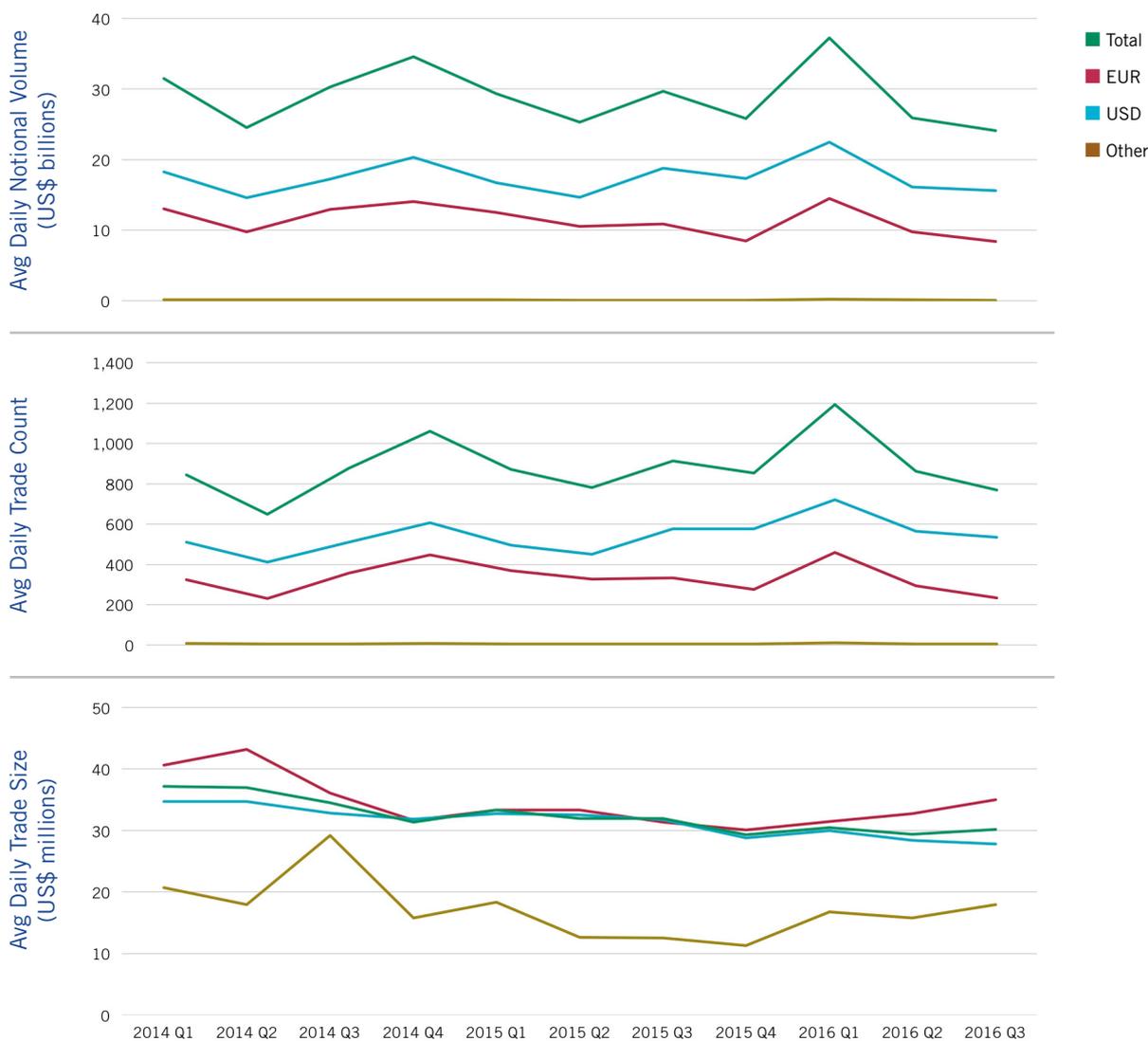
Left Panel: CDX High Yield notionals accounted for 14.9% of CDS index volume (green bar) and 25.1% of trade count (yellow bar) in the third quarter of 2016. Volume fell year-over-year by both measures, declining by 24.8% (from \$4.7 billion to \$3.5 billion, brown bar) and by 22.6% (from 246 to 190, tan bar), respectively. Volume also declined by 5.2% since the second quarter of 2016 (from \$3.7 billion to \$3.5 billion, purple bar), while trade count fell by 15.6% (225 to 190, pink bar).

Middle Left Panel: CDX Investment Grade notionals represented the largest portion of CDS index volume by taxonomy (33.6%, green bar), but made up the smallest share of trade count (21.7%, yellow bar). These contracts declined in terms of volume and trade count since the same quarter the year before, falling by 13.6% (from \$9.2 billion to \$8.0 billion, brown bar) and by 2.0% (from 168 to 164, pink bar), respectively. Since the second quarter of 2016, volume and trade count fell by 5.0% (from \$8.4 billion to \$8.0 billion, purple bar) and by 9.2% (from 181 to 164, pink bar), respectively.

Middle Right Panel: Aggregate iTraxx Europe indices made up 28.8% of notional (green bar) and 27.3% of trade count (yellow bar) in the third quarter of 2016. Both of these measures declined over the prior year, falling by 20.3% (from \$8.6 billion to \$6.8 billion, brown bar) and by 27.5% (from 286 to 207, tan bar). They also fell over the quarter, by 15.1% (from \$8.0 billion to \$6.8 billion, purple bar) and by 20.3% (from 260 to 207, pink bar), respectively.

Right Panel: All other CDS indices combined represented 22.7% of notionals and 26.0% of trade count (green and yellow bars). Since the third quarter of 2015, these measures declined by 22.7% (from \$7.0 billion to \$5.4 billion, brown bar) and by 5.5% (208 to 197, tan bar). Over the third quarter of 2016, notionals fell by 2.1% (from \$5.5 billion to \$5.4 billion, purple bar), but trade counts rose by 5.3% (from 187 to 197, pink bar).

INDEX CDS STATISTICS: BY CURRENCY



Top Chart: US dollar- and euro-denominated CDS index average daily volume fell between the first quarter of 2014 and the third quarter of 2016. US dollar CDS index notional volume fell by 14.8% (from \$18.3 billion to \$15.6 billion), while euro-denominated contracts decreased by 35.4% (from \$13.0 billion to \$8.4 billion).

Middle Chart: While euro-denominated CDS index trade count also decreased by 28.1% (from 324 to 233), US dollar trade count increased by 4.5%, from 510 to 533 trades per day.

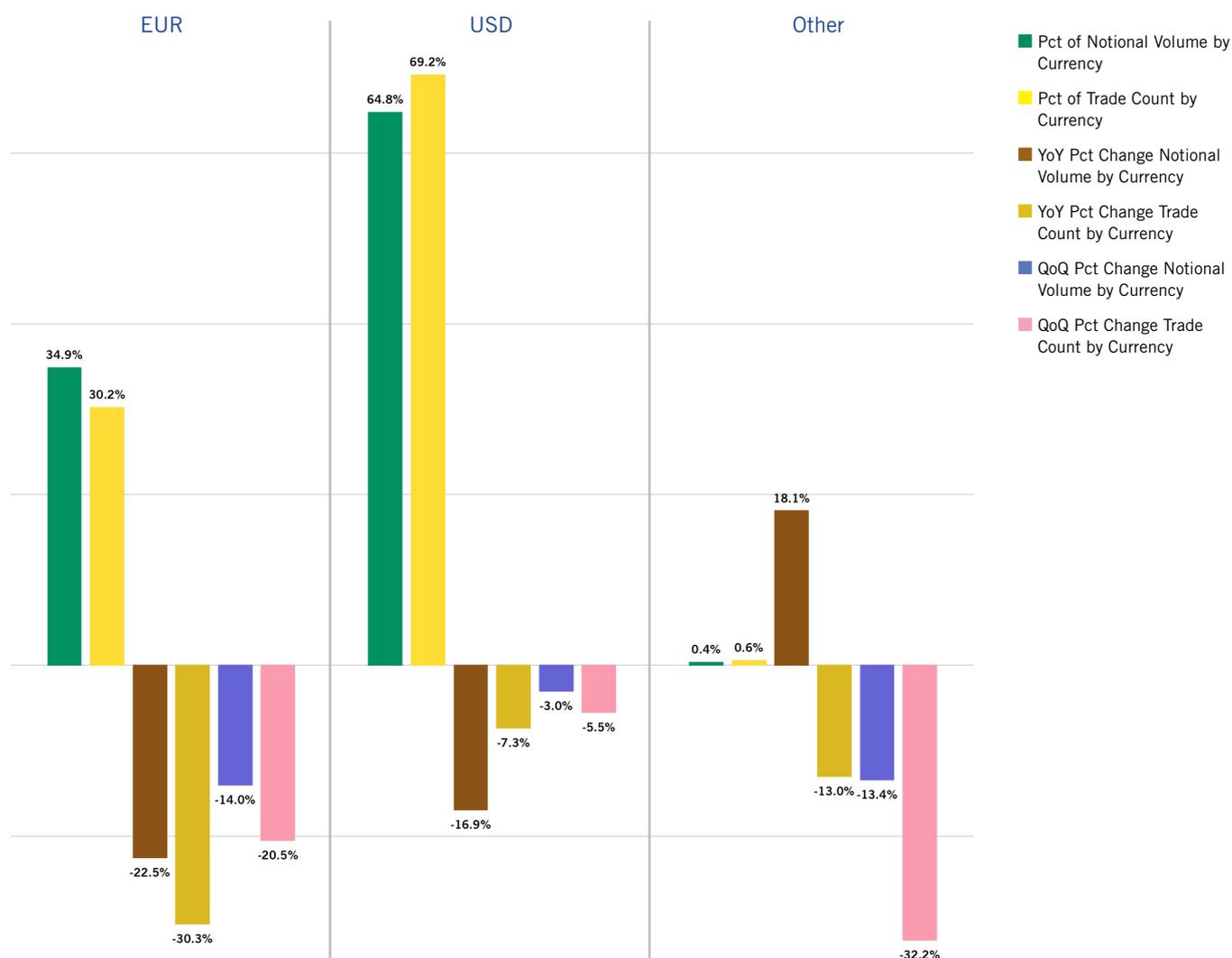
Bottom Chart: CDS index average daily trade size fell for both currencies. US dollar-denominated CDS index trades declined by 20.0% (from \$34.8 million to \$27.8 million), while euro-denominated CDS index transactions fell by 13.8% (from \$40.6 million to \$35.0 million).

CDS index volume denominated in the remaining currencies was minimal and typically characterized by sporadic trading.

INDEX CDS STATISTICS: BY CURRENCY

			EUR	USD	Total
Avg Daily Notional Volume by Currency (US\$ billions)	2014	2014 Q1	13,001,314,438	18,299,064,486	31,477,704,552
		2014 Q2	9,770,368,260	14,594,778,827	24,499,040,010
		2014 Q3	12,930,090,847	17,260,120,117	30,337,866,878
		2014 Q4	14,100,305,768	20,361,898,336	34,579,807,465
	2015	2015 Q1	12,479,017,175	16,720,413,316	29,310,676,290
		2015 Q2	10,541,951,536	14,672,204,752	25,272,338,346
		2015 Q3	10,838,508,958	18,771,207,576	29,683,370,040
		2015 Q4	8,458,429,439	17,310,266,511	25,828,088,946
	2016	2016 Q1	14,527,989,035	22,499,341,358	37,233,833,596
		2016 Q2	9,761,690,156	16,084,265,333	25,946,391,527
		2016 Q3	8,395,984,519	15,596,011,035	24,078,991,932
	Avg Daily Trade Count by Currency	2014	2014 Q1	324	510
2014 Q2			230	411	647
2014 Q3			358	511	876
2014 Q4			446	607	1,059
2015		2015 Q1	370	496	872
		2015 Q2	326	450	780
		2015 Q3	334	575	913
		2015 Q4	275	575	854
2016		2016 Q1	459	722	1,192
		2016 Q2	293	564	863
		2016 Q3	233	533	770
Avg Daily Trade Size Currency (US\$ millions)		2014	2014 Q1	40,593,506	34,766,239
	2014 Q2		43,212,004	34,731,638	36,943,456
	2014 Q3		36,093,370	32,827,526	34,552,860
	2014 Q4		31,686,340	31,848,200	31,340,667
	2015	2015 Q1	33,308,105	32,779,150	33,340,381
		2015 Q2	33,319,530	32,549,460	31,981,754
		2015 Q3	31,366,919	31,751,675	31,913,428
		2015 Q4	30,093,386	28,789,844	29,316,510
	2016	2016 Q1	31,472,557	29,987,196	30,473,211
		2016 Q2	32,755,159	28,426,776	29,389,110
		2016 Q3	35,006,081	27,813,247	30,156,861

INDEX CDS STATISTICS: BY CURRENCY



Left Panel: Euro-denominated CDS index trades accounted for the second largest percentage of average daily notional volume and trade count in the third quarter of 2016: 34.9% and 30.2% (green and yellow bars respectively). These measures declined over the prior year, falling by 22.5% (from \$10.8 billion to \$8.4 billion, brown bar) and by 30.3% (from 334 to 233, tan bar). There was also a decline compared with the second quarter of 2016, with volume falling by 14.0% (from \$9.8 billion to \$8.4 billion, purple bar) and trade count declining by 20.5% (from 293 to 233, pink bar).

Center Panel: US dollar-denominated CDS index trades made up the majority of average daily notional volume and trade count: 64.8% and 69.2% (green, yellow bars), respectively. Since the third quarter of 2015, daily volume decreased by 16.9% (from \$18.8 billion to \$15.6 billion, brown bar), while trade counts fell by 7.3% (from 575 to 533, tan bar). Both measures declined since the second quarter of 2016, by 3.0% (from \$16.1 billion to \$15.6 billion, purple bar) and by 5.5% (from 564 to 533, pink bar).

Right Panel: CDS index trades denominated in all other currencies accounted for less than 1.0% of notionals and trade counts (green and yellow bars). Because of the low volume transacted in these contracts, sporadic trading may lead to sharp changes in these metrics. Compared to the third quarter of 2015, volume increased by 18.1% (from \$73.7 billion to \$87.0 billion, brown bar), while trade count fell by 13.0% (from 5 to 4, tan bar). Since the second quarter of 2016, volume fell by 13.4% (from \$100.4 billion to \$87.0 billion, purple bar) as the average number of trades per day also decreased, by 32.2% (from 6 to 4, pink bar).



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ABOUT ISDA

Since 1985, ISDA has worked to make the global derivatives markets safer and more efficient. Today, ISDA has over 850 member institutions from 66 countries. These members comprise a broad range of derivatives market participants, including corporations, investment managers, government and supranational entities, insurance companies, energy and commodities firms, and international and regional banks. In addition to market participants, members also include

key components of the derivatives market infrastructure, such as exchanges, intermediaries, clearing houses and repositories, as well as law firms, accounting firms and other service providers. Information about ISDA and its activities is available on the Association's website: www.isda.org.

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