October 2015

# Research Note

Cross-Border Fragmentation of Global Interest Rate Derivatives: The New Normal? First Half 2015 Update

The global derivatives markets – in particular, the market for euro interest rate swaps – remains fragmented along geographic lines, according to an analysis of data to June 30, 2015. This report is the fourth in a series of research notes charting changes in global liquidity pools since US swap execution facility (SEF) rules came into force in October 2013.

Prior to the implementation of US SEF rules, approximately 25% of euro interest rate swaps (IRS) activity comprised trades between European and US dealers. By August 2014, the split in liquidity reached its peak, with this figure falling to about 3%. Since then, the share of euro IRS trading activity between European and US dealers has increased to as much as 14% (in December 2014). The latest analysis shows that approximately 10% of euro IRS activity has been traded between European and US dealers so far this year.

In comparison, fragmentation in the US dollar IRS market is much less pronounced, with a more even split between domestic and cross-border flows.

# **SUMMARY**

The euro IRS market continued to show clear evidence of fragmentation

Previous ISDA research notes have highlighted a fragmentation in liquidity along geographic lines following the introduction of the US swap execution facility (SEF) regime in October 2013.

Under these rules, electronic trading platforms that provide access to US persons were required to register with the US Commodity Futures Trading Commission (CFTC) and comply with SEF rules from October 2, 2013. The first derivatives products were mandated to trade on these platforms from February 15, 2014, under a process known as made-available-to-trade (MAT). As a result, all US persons are now legally required to trade MAT instruments on SEFs or designated contract markets. Comparable rules are not yet in place in most other jurisdictions, meaning the same requirements do not exist for the majority of non-US participants.

This analysis includes data from the first half of 2015. To measure the impact on cross-border relationships, ISDA used monthly regional clearing data from LCH. Clearnet between January 2013 and June 2015 for US dollar- and euro-denominated interest rate swaps (IRS).

#### The analysis reveals:

- The cleared euro IRS market remains largely fragmented in US and non-US liquidity pools. This split was first observed in October 2013, after the CFTC's SEF regime came into force.
- During the second quarter of 2015, an average of €2,345 billion per month of euro IRS, or 88.6% of total euro IRS volume by notional, was transacted exclusively between European dealers. During the third quarter of 2013 (prior to the start of the SEF regime), an average of €1,708 billion per month of euro IRS, or 73.4% of total euro IRS volume by notional, was transacted exclusively between European counterparties.
- As the notional volume of euro IRS transactions between European counterparties has increased, the notional volume of trades between European and US counterparties has fallen, both on an absolute basis and in percentage terms. During the second quarter of 2015, an average of €267 billion per month of euro IRS, or 10% of total euro IRS volume by notional, was transacted between European and US counterparties. During the third quarter of 2013, an average of €598 billion per month of euro IRS, or 25.8% of total euro IRS volume by notional, was transacted between European and US counterparties.
- The percentage of euro IRS trades exclusively between European counterparties in the first (89.4%) and second (88.6%) quarters of 2015 was slightly higher than in the fourth quarter of 2014 (87.6%).
- Although regional pools exist in the market for US dollar IRS, evidence of fragmentation is more subtle than in the market for euro IRS.
- European-to-US cross-border market share for US dollar IRS has surpassed exclusive European and US dealer volumes since the fourth quarter of 2014. Continued growth of the cross-border pool will rely on the harmonization of rules in various regions.

European dealers continue to prefer trading euro IRS with other European dealers

#### FORMATION OF EXCLUSIVE EUROPEAN POOL

Chart 1 shows the evolution of the European pool from January 2013 to June 2015. This market is defined as the market for euro IRS traded between European dealers and all of their counterparties by region. US dealers are the largest foreign counterparty to the European dealer community and are represented by the red line¹. Within the non-US pool lies an exclusive European interdealer liquidity pool, which is denoted by the blue line. This pool's market share continued to grow as US regulations have come into force.

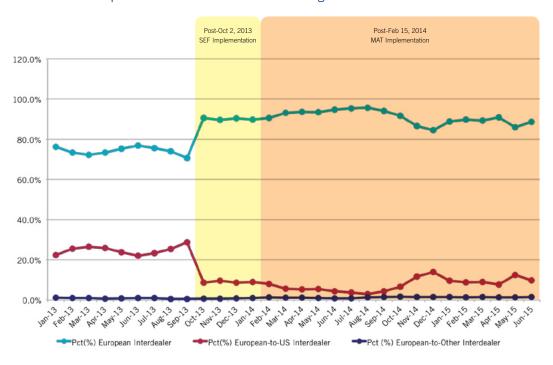
In September 2013, exclusive European interdealer liquidity accounted for 70.7% of market share. This figure jumped to 90.7% in October 2013, following implementation of the US SEF rules (yellow area). Following the February 15, 2014 MAT determination (orange area), the exclusive European dealer pool's share again moved higher to 93.2% in March 2014. Exclusive European interdealer market share continued to increase over the next few months, reaching 95.7% in August 2014.

Conversely, the European-to-US interdealer 'shared' pool (red line) fell sharply following the introduction of US SEF rules. The percentage of cross-border transactions fell from a high of 28.7% in September 2013 to a low of 2.9% in August 2014.

The last quarter of 2014 saw a slight reversal of this trend, with the cross-border market becoming more active. The proportion of euro IRS trades between European dealers fell to 84.5% in December 2014. Euro IRS transactions between European and US dealers rose to 14% in that month, from 11.8% in November and 6.6% in October.

However, the share of transactions between European dealers edged higher again during the first half of 2015. The exclusive European pool increased to an average monthly share of 89.4% in the first quarter and 88.6% in the three months to June 30.

Chart 1: The European Market for Euro IRS: Percentage of Market Share



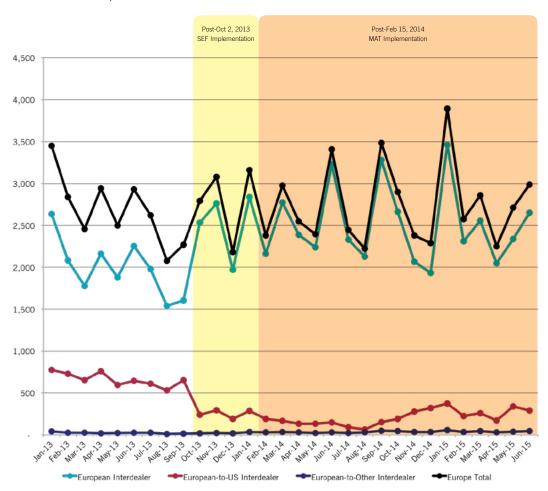
<sup>&</sup>lt;sup>1</sup> Pct (%) European-to-Other represents transactions between European dealers and Asian/Canadian dealers in the market for euro IRS, which is denoted by the purple line in Chart 1

This was driven by a significant increase in European-dealer-to-European-dealer trading volumes in the early part of the year (see Chart 2). Trading volumes in the European liquidity pool increased from €1,934 billion in December 2014 to €3,462 billion in January this year. This helped propel total trading volumes to €3,893 billion in January 2015, a 23.3% increase from the €3,159 billion traded in January 2014.

However, trading volumes have subsequently fallen, with average monthly notional dropping by 14.7% between the first and second quarters of 2015, from €3,109 billion to €2,650 billion.

Cross-border trading (red line) also saw an uptick in volume at the start of this year. However, the proportion of European-to-US interdealer activity fell to 9.6% of total volume in January 2015 versus 14% the month before.

Chart 2: The European Market for Euro IRS (€ billions)



# US LIQUIDITY POOL FOR EURO IRS

Cross-border trading in the US liquidity pool for euro IRS continued to dominate in the first half of 2015

The US liquidity pool for euro IRS consists of trades by US dealers and all of their regional counterparties. An exclusive US interdealer liquidity pool is a subset of the US pool and is separate and distinct from the larger exclusive European pool described in the previous section.

Chart 3 details the evolution of the US pool. European-to-US dealer market share (red line) has always dominated this space as US dealers access the more liquid European pool<sup>2</sup>. This portion of the market has continued to grow sharply through the first half of 2015.

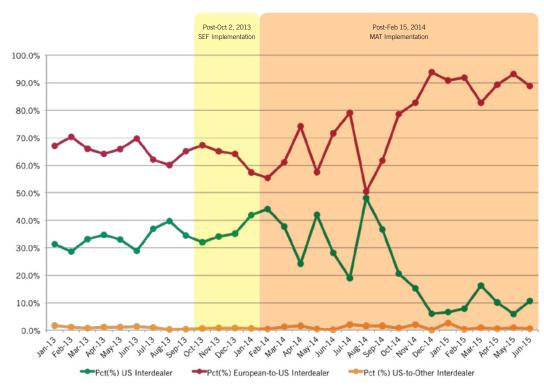
Exclusive US interdealer market share (green line) showed a slight upward trend between January 2013 and January 2014. During this time, market share averaged 34.1%.

Following the implementation of the MAT determination in February 2014, exclusive US interdealer market share became more volatile, peaking at 48% in August 2014.

More recently, this subset of the market has become more illiquid, accounting for 10% of total volume on average during the first half of 2015. The exclusive US interdealer market reached a new low in May 2015, representing just 5.9% of volume, before rising to 10.7% in June.

The cross-border market (red line) continues to account for the majority of market share. The proportion of trades between US and European dealers reached 88.5% on average in the first quarter of 2015 and 90.4% in the next three month period. That represents a significant increase from the 62.9% and 74.4% average market share in the first and second halves of 2014, respectively.



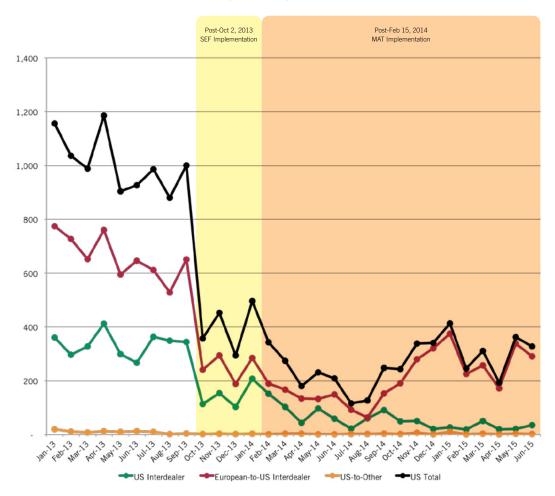


<sup>&</sup>lt;sup>2</sup> Pct (%) US-to-Other represents transactions between US dealers and Asian/Canadian dealers in the market for euro IRS, which is denoted by the orange line

Chart 4 compares the notional volume of euro IRS transacted between US dealers and regional counterparties. The trend of increasing total euro IRS volumes (black line) that began in August 2014 appears to be slowing down after reaching €414 billion in January 2015. Average volume measured €295 billion during the second quarter of 2015.

Additionally, the exclusive US interdealer market (green line) continues to decrease, with this segment accounting for 8.9% of total volume during the second quarter of the year. Average volume in the US interdealer pool fell from €32 billion in the first quarter of 2015 to €25 billion in second quarter of 2015.

Chart 4: The US Market for Euro IRS (€ billions)



# THE GLOBAL MARKET FOR EURO IRS

The exclusive US interdealer market for euro IRS has been hit hard since the introduction of the SEF regime

This section combines the liquidity of all regional sources into one pool in order to observe market dynamics in a non-fragmented scenario. Chart 5 describes the market for euro IRS by all participants and is not segregated by access to regional counterparties.

Exclusive European interdealer transactions (blue line) continue to drive global market volumes. From January 2013 to September 2013, the European interdealer community accounted for 65.6% of market share on average. When the US SEF rules came into force in October 2013, this percentage increased to 87%. Market share continued to climb, rising to 89.9% in March 2014 following the first MAT determinations in February, and reached a high of 94.4% in July 2014.

European interdealer market share currently remains high, although this percentage has fallen modestly. During the second quarter of 2015, market share averaged 87.7%. During the month of April, exclusive European volume represented 90.1% of the total.

Prior to the introduction of the US SEF rules, the cross-border or shared European-to-US dealer pool (red line) accounted for an average 22% of total euro IRS volume between January 2013 and September 2013. Market share declined to 8.3% in October 2013 as the SEF rules came into force, and steadily decreased to a low of 2.8% in August 2014. More recently, this pool represented 9.9% of total volume on average during the second quarter of this year.

The exclusive US interdealer pool continues to fade away. This pool, which captured 11.3% of market share on average between January 2013 and September 2013, represented only 0.9% of total global volume between April and June of 2015.

Chart 5: The Global Market for Euro IRS: Percentage of Market Share

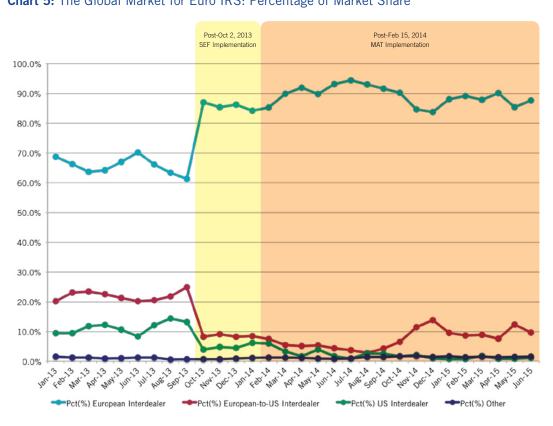
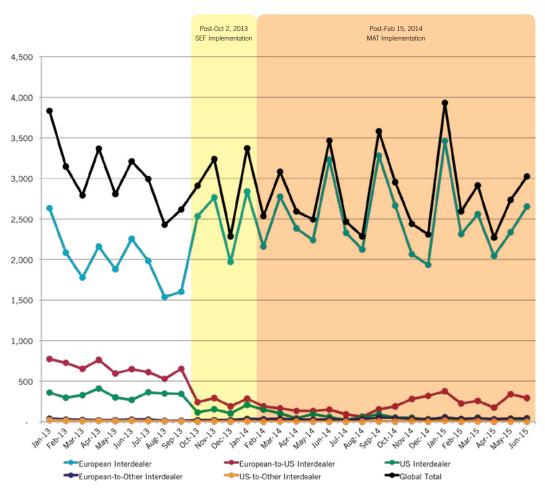




Chart 6 describes the combined total global volume of euro IRS by all participants. Total volume (black line) reached €3,931 billion in January 2015, the highest level since the series began in January 2013. Although average volumes have mostly trended higher, there have been recent declines from February 2015. Between the first and second quarters of 2015, notional volumes fell from a monthly average of €3,146 billion to €2,678 billion, or by 14.8%.

European interdealer volume (blue line) continues to closely track the total, as has been the case since the SEF regime began in October 2013. Not surprisingly, a new high of  $\[ \in \]$  3,462 billion was needed at the beginning of this year. Average quarter-over-quarter volume declined more sharply than total volume, falling 15.6% from a monthly average of  $\[ \in \]$  2,777 billion between the first and second quarters of 2015.

Chart 6: The Global Market for Euro IRS (€ billions)



# GLOBAL CHARACTER OF THE US DOLLAR IRS MARKET

The market for US dollar IRS has remained less fragmented

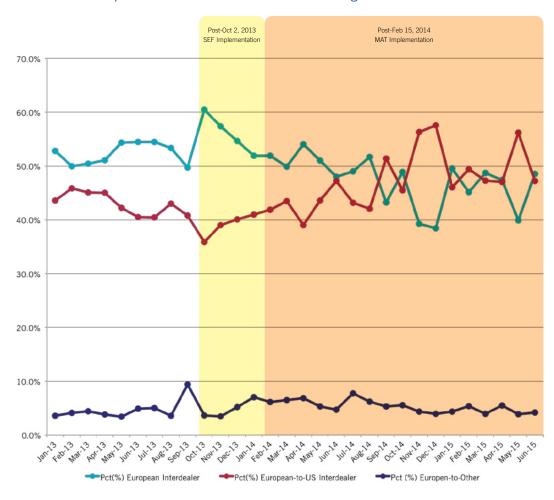
The domestic and foreign liquidity pools for US dollar IRS are covered in this section.

Chart 7 shows the evolution of the European (non-US) market from January 2013 to June 2015. This pool is defined as the market for US dollar IRS traded by European dealers and all of their counterparties by region. US dealers are the largest regional counterparty to the European dealer community, similar to the euro IRS market.

Since the onset of the October 2013 US SEF regime (yellow area), the once dominant European interdealer liquidity pool (blue line) has gradually given way to cross-border liquidity (red line)<sup>3</sup>. Exclusive European interdealer liquidity accounted for 49.7% of market share in September 2013 before jumping to a high of 60.5% the following month. A year later, volume dipped below the cross-border pool for the first time in September 2014.

Since then, US dollar liquidity pools have become far more integrated. During the second quarter of 2015, European interdealer market share represented 45.3% of total volume compared to 50.2% for the cross-border market.

Chart 7: The European Market for US Dollar IRS: Percentage of Market Share

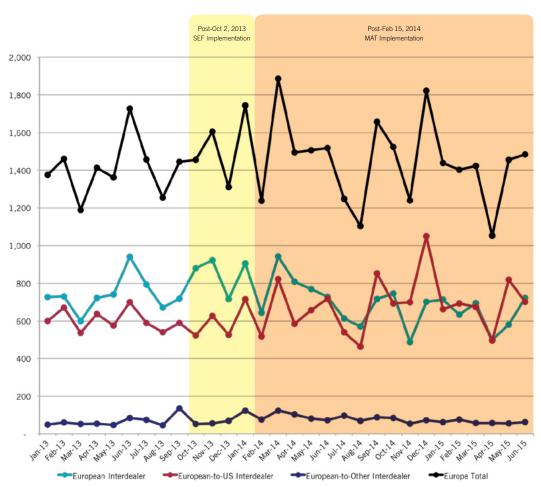


<sup>&</sup>lt;sup>3</sup> Pct (%) European-to-Other represents transactions between European dealers and Asian/Canadian dealers in the market for US dollar IRS and is denoted by the purple line

Chart 8 shows monthly trading volumes in the European market for US dollar IRS. Total volume traded by regional market participants (black line) trended lower during 2015, reaching a series low of \$1,052 billion in April. As a result, average monthly trading volumes fell from \$1,421 billion during the first quarter to \$1,330 billion during the second three-month period, a decline of 6.4%.

Although declines were observed in both the European and cross-border pools, a double-digit fall in exclusive European liquidity is responsible for recent declines in total volume. The exclusive European interdealer pool for US dollar IRS decreased 11.7% (from \$680 billion to \$600 billion) between the first and second quarters, while cross-border volumes fell only 0.8% (from \$676 billion to \$671 billion).

Chart 8: The European Market for US Dollar IRS (US\$ billions)



US dealers trade US dollar IRS consistently with both US counterparties

and European

dealers

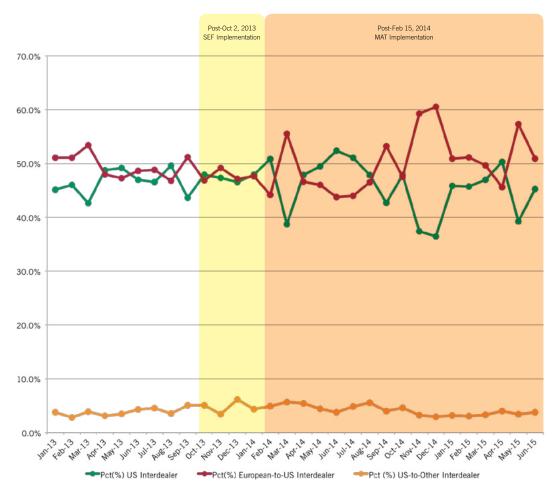
#### THE EXCLUSIVE US POOL FOR US DOLLAR IRS

The US pool is defined as US dollar IRS traded between US dealers and all of their regional counterparties. An exclusive US interdealer pool is a subset of this larger liquidity pool and is separate and distinct from the European (non-US) pool described in the previous paragraphs.

US dealers continued to trade consistently with other US counterparties and European dealers during the second quarter of 2015. During this time, cross-border market share averaged 51.3% of total volume while the US interdealer market averaged 45%.

Chart 9 details the evolution of the US pool<sup>4</sup>. Cross-border activity has dominated trading flows since the end of last year, reaching a peak of 60.5% in December 2014. Despite this, US-dealer-to-US-dealer trading bucked the trend in April 2015, accounting for 50.3% of trading flows, versus 45.6% for cross-border activity.

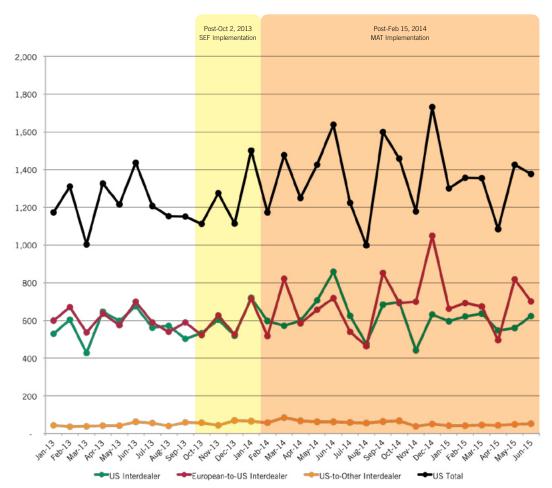
Chart 9: The US Market for US Dollar IRS: Percentage of Market Share



<sup>&</sup>lt;sup>4</sup> Pct (%) US-to-Other represents transactions between US dealers and Asian/Canadian dealers in the market for US dollar IRS and is denoted by the orange line

Chart 10 shows the notional volume of US dollar IRS traded between US dealers and their regional counterparties. Total volume (black line) has decreased this year after a strong end to 2014. Total volume fell 3.1% from a monthly average of \$1,337 billion in the first quarter of 2015 to \$1,296 billion in the second quarter. The decline was most influenced by a slowdown in trading in April 2015. While activity in the cross-border pool rebounded strongly in May (red line), the exclusive US dealer pool was slower to recover (green line).

Chart 10: The US Market for US Dollar IRS (US\$ billions)



The crossborder liquidity pool accounts for the largest percentage of the US dollar IRS market

#### THE GLOBAL MARKET FOR US DOLLAR IRS

The global market for US dollar IRS combines all regional participant volumes rather than segregating liquidity according to US and non-US pools. Chart 11 describes this non-fragmented scenario.

Unlike the global market for euro IRS, US dollar IRS market share is more evenly distributed across European dealers (blue line), US dealers (green line) and the European-to-US interdealer market (red line). Recently, the cross-border pool has increased in terms of market share. During the first quarter of 2015, this segment accounted for an average 32.5% market share, compared with 34.1% in the second quarter of 2015. Average monthly European interdealer market share decreased from 32.6% to 30.6% over the same period, while exclusive US interdealer participation was stable (accounting for 29.7% of the total during both quarters).

Chart 11: US Dollar IRS Global Market Share

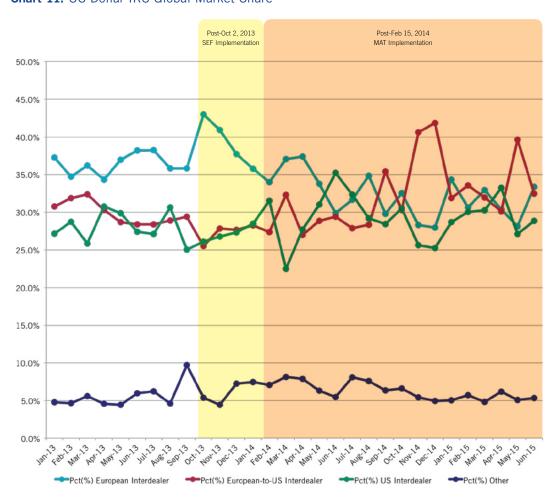
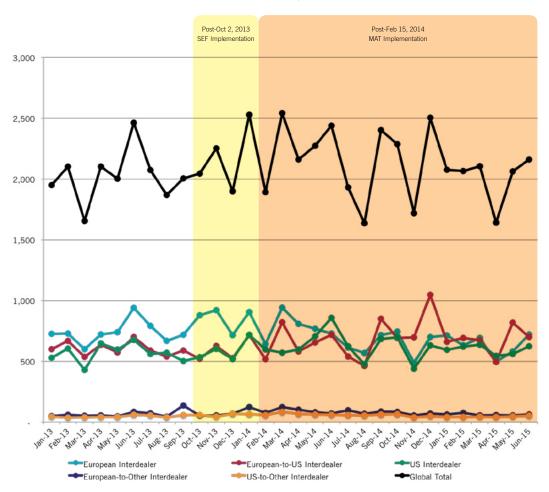




Chart 12 compares notional volume traded in all US dollar pools. Trading has remained relatively muted so far this year, with total volume (black line) decreasing from a monthly average of \$2,082 billion in the first three months of 2015 to \$1,955 billion in the second quarter. A sharp decline in April 2015 was behind the quarterly move, with total volumes falling from \$2,106 billion in March to \$1,641 billion in April, a 22.1% drop. Trading activity rebounded in May, driven by a significant jump in cross-border trading activity, from \$495 billion in April to \$818 billion in May, a 65.3% increase.

Chart 12: US Dollar IRS Global Market Share (US\$ billions)



#### CONCLUSION

Cross-border trading continues to hinge on the harmonization of rules across jurisdictions

The global derivatives market continues to feel the effects from the implementation of US SEF rules in October 2013. This analysis shows that liquidity in the interest rate swaps market has fragmented since the start of the SEF regime, and particularly since the introduction of the first MAT determinations in February 2014. Most notably, fragmentation has continued to impact the market for euro interest rate swaps, with European dealers predominantly opting to trade with other European dealers.

The market for US dollar IRS is much less affected, and cross-border trading is more prevalent. This likely reflects the fact that European dealers are increasingly willing to trade with US dealers – and therefore trade on SEFs – in order to access the larger US dollar liquidity pool. The largest pool for euro IRS, however, is in Europe, away from SEFs. Further cross-border growth will depend on the harmonization of rules in various regions.



# **ANNEX**

**Table 1:** The European Market for Euro IRS (% of Market Share)

2013	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	76.4%	73.4%	72.4%	73.4%	75.3%	77.0%	75.6%	74.0%	70.7%	90.7%	89.8%	90.5%
European-to-US	22.5%	25.6%	26.6%	25.9%	23.9%	22.1%	23.4%	25.5%	28.7%	8.6%	9.6%	8.7%
European-to-Other	1.2%	0.9%	1.1%	0.7%	0.8%	1.0%	1.0%	0.5%	0.6%	0.7%	0.7%	0.9%
2014	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	89.9%	90.7%	93.2%	93.6%	93.5%	94.8%	95.4%	95.7%	94.2%	91.8%	86.7%	84.5%
European-to-US	9.0%	8.0%	5.6%	5.3%	5.5%	4.4%	3.8%	2.9%	4.4%	6.6%	11.8%	14.0%
European-to-Other	1.1%	1.3%	1.2%	1.1%	1.0%	0.8%	0.9%	1.4%	1.4%	1.6%	1.5%	1.5%
2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	88.9%	89.8%	89.5%	91.0%	86.1%	88.8%						
European-to-US	9.6%	8.8%	9.0%	7.7%	12.5%	9.7%						
European-to-Other	1.4%	1.4%	1.5%	1.4%	1.4%	1.5%						

**Table 2:** The European Market for Euro IRS (€ billions)

2013	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	2,635	2,084	1,778	2,161	1,880	2,255	1,980	1,538	1,605	2,533	2,764	1,972
European-to-US	775	728	653	761	596	647	613	529	652	241	294	189
European-to-Other	41	27	26	20	21	28	26	11	13	20	21	19
Total	3,451	2,838	2,457	2,942	2,497	2,930	2,619	2,077	2,270	2,793	3,079	2,180
2014	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	2,839	2,161	2,774	2,386	2,240	3,230	2,331	2,126	3,281	2,663	2,066	1,934
European-to-US	285	190	168	134	133	150	92	64	153	191	280	320
European-to-Other	35	30	36	28	23	28	21	32	50	47	36	34
Total	3,159	2,381	2,977	2,548	2,396	3,408	2,444	2,222	3,484	2,901	2,381	2,288
2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	3,462	2,312	2,557	2,046	2,336	2,652						
European-to-US	376	226	258	172	338	291						
European-to-Other	56	35	43	31	38	45						
Total	3,893	2,574	2,859	2,250	2,712	2,988						



Table 3: The US Market for Euro IRS (% of Market Share)

2013	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
US Interdealer	31.3%	28.6%	33.2%	34.7%	33.1%	28.9%	36.9%	39.7%	34.5%	32.0%	34.1%	35.1%
European-to-US	67.0%	70.3%	66.0%	64.2%	65.8%	69.8%	62.1%	60.0%	65.1%	67.3%	65.1%	64.1%
US-to-Other	1.7%	1.1%	0.8%	1.1%	1.1%	1.4%	1.0%	0.3%	0.4%	0.7%	0.8%	0.7%
2014	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
US Interdealer	41.9%	44.2%	37.7%	24.2%	42.0%	28.2%	18.9%	48.0%	36.7%	20.6%	15.2%	6.1%
European-to-US	57.3%	55.4%	61.1%	74.2%	57.5%	71.6%	79.0%	50.4%	61.7%	78.6%	82.7%	93.8%
US-to-Other	0.7%	0.5%	1.2%	1.6%	0.5%	0.3%	2.1%	1.6%	1.6%	0.8%	2.1%	0.1%
2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
US Interdealer	6.6%	7.9%	16.3%	10.1%	5.9%	10.7%						
European-to-US	90.8%	91.8%	82.8%	89.3%	93.2%	88.8%						
US-to-Other	2.6%	0.3%	1.0%	0.6%	0.9%	0.5%						

**Table 4:** US Market for Euro IRS (€ billions)

2013	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
US Interdealer	362	297	328	412	299	268	364	349	345	115	154	103
European-to-US	775	728	653	761	596	647	613	529	652	241	294	189
US-to-Other	20	11	8	13	10	13	10	3	4	2	4	2
Total	1,156	1,036	989	1,186	904	927	987	881	1,001	358	452	295
2014	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
US Interdealer	208	152	103	44	97	59	22	61	91	50	51	21
European-to-US	285	190	168	134	133	150	92	64	153	191	280	320
US-to-Other	4	2	3	3	1	1	2	2	4	2	7	0
Total	496	344	275	181	231	210	116	127	248	243	339	341
2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
US Interdealer	27	19	51	19	22	35						
European-to-US	376	226	258	172	338	291						
US-to-Other	11	1	3	1	3	2						
Total	414	246	312	193	363	328						

**Table 5:** The Global Market for Euro IRS (% of Market Share)

2013	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	68.8%	66.2%	63.7%	64.2%	67.0%	70.2%	66.1%	63.3%	61.3%	87.0%	85.4%	86.3%
European-to-US	20.2%	23.1%	23.4%	22.6%	21.2%	20.1%	20.5%	21.8%	24.9%	8.3%	9.1%	8.3%
US Interdealer	9.4%	9.4%	11.8%	12.2%	10.7%	8.3%	12.2%	14.4%	13.2%	3.9%	4.8%	4.5%
Other†	1.6%	1.2%	1.2%	1.0%	1.1%	1.3%	1.2%	0.6%	0.7%	0.8%	0.8%	0.9%
2014	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	84.2%	85.2%	89.9%	92.0%	89.8%	93.1%	94.4%	93.1%	91.7%	90.2%	84.7%	83.8%
European-to-US	8.4%	7.5%	5.4%	5.2%	5.3%	4.3%	3.7%	2.8%	4.3%	6.5%	11.5%	13.9%
US Interdealer	6.2%	6.0%	3.4%	1.7%	3.9%	1.7%	0.9%	2.7%	2.5%	1.7%	2.1%	0.9%
Other†	1.1%	1.3%	1.3%	1.2%	1.0%	0.8%	0.9%	1.5%	1.5%	1.6%	1.7%	1.5%
2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	88.1%	89.2%	87.8%	90.1%	85.3%	87.7%						
European-to-US	9.6%	8.7%	8.9%	7.6%	12.4%	9.6%						
US Interdealer	0.7%	0.7%	1.7%	0.9%	0.8%	1.2%						
Other†	1.7%	1.4%	1.6%	1.4%	1.5%	1.5%						

†Other represents the percentage of market share represented by European-to-Asian/Canadian and US-to-Asian/Canadian interdealers



**Table 6:** The Global Market for Euro IRS (€ billions)

2013	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	2,635	2,084	1,778	2,161	1,880	2,255	1,980	1,538	1,605	2,533	2,764	1,972
European-to-US	775	728	653	761	596	647	613	529	652	241	294	189
US Interdealer	362	297	328	412	299	268	364	349	345	115	154	103
Other†	61	38	34	33	31	41	37	14	18	22	24	21
Total	3,832	3,146	2,793	3,367	2,805	3,211	2,994	2,429	2,619	2,910	3,237	2,285
2014	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	2,839	2,161	2,774	2,386	2,240	3,230	2,331	2,126	3,281	2,663	2,066	1,934
European-to-US	285	190	168	134	133	150	92	64	153	191	280	320
US Interdealer	208	152	103	44	97	59	22	61	91	50	51	21
Other†	38	32	39	31	24	29	23	34	54	48	43	34
Total	3,370	2,535	3,084	2,595	2,494	3,468	2,468	2,285	3,579	2,953	2,440	2,309
2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	3,462	2,312	2,557	2,046	2,336	2,652						
European-to-US	376	226	258	172	338	291						
US Interdealer	27	19	51	19	22	35						
Other†	66	36	46	32	42	46						
Total	3,931	2,594	2,912	2,270	2,737	3,025						

†Other represents the percentage of market share represented by European-to-Asian/Canadian and US-to-Asian/Canadian interdealers

Table 7: The European Market for US Dollar IRS (% of Market Share)

2013	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	52.8%	50.0%	50.4%	51.1%	54.4%	54.5%	54.5%	53.4%	49.7%	60.5%	57.4%	54.7%
European-to-US	43.6%	45.9%	45.1%	45.0%	42.2%	40.5%	40.5%	43.0%	40.8%	35.9%	39.1%	40.1%
European-to-Other	3.6%	4.2%	4.5%	3.8%	3.4%	4.9%	5.1%	3.6%	9.4%	3.6%	3.5%	5.2%
2014	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	51.9%	51.9%	49.9%	54.1%	51.0%	48.0%	49.1%	51.7%	43.3%	48.9%	39.3%	38.5%
European-to-US	41.0%	41.9%	43.5%	39.0%	43.6%	47.3%	43.2%	42.1%	51.4%	45.5%	56.3%	57.6%
European-to-Other	7.1%	6.2%	6.6%	6.9%	5.4%	4.7%	7.8%	6.2%	5.3%	5.6%	4.4%	4.0%
2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	49.6%	45.1%	48.7%	47.4%	39.9%	48.6%						
European-to-US	46.0%	49.4%	47.3%	47.0%	56.2%	47.2%						
European-to-Other	4.4%	5.4%	4.0%	5.5%	3.9%	4.2%						



Table 8: The European Market for US Dollar IRS (\$ billions)

2013	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European interdealer	726	729	600	722	740	941	793	670	718	880	921	716
European-to-US	599	670	536	637	575	700	589	540	590	522	627	526
European-to-Other	49	61	53	54	47	85	74	45	136	53	56	69
Total	1,375	1,460	1,189	1,413	1,361	1,726	1,456	1,255	1,444	1,455	1,605	1,311
2014	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European interdealer	905	643	942	808	769	729	612	570	717	745	487	700
European-to-US	715	518	821	583	657	718	539	464	852	693	699	1049
European-to-Other	123	76	124	103	81	72	97	69	88	85	55	72
Total	1,744	1,238	1,887	1,494	1,506	1,518	1,248	1,103	1,657	1,523	1,240	1,822
2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European interdealer	713	633	693	499	581	721						
European-to-US	662	693	673	495	818	701						
European-to-Other	63	76	57	58	57	62						
Total	1,438	1,402	1,423	1,052	1,455	1,484						

Table 9: The US Market for US Dollar IRS (% of Market Share)

2013	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
US Interdealer	45.2%	46.1%	42.7%	48.8%	49.2%	47.0%	46.6%	49.6%	43.7%	48.0%	47.4%	46.6%
European-to-US	51.1%	51.1%	53.4%	48.0%	47.3%	48.7%	48.8%	46.8%	51.2%	46.9%	49.2%	47.2%
US-to-Other	3.8%	2.8%	3.9%	3.2%	3.5%	4.3%	4.6%	3.5%	5.1%	5.1%	3.5%	6.2%
2014	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
US Interdealer	48.0%	50.9%	38.7%	47.9%	49.5%	52.4%	51.1%	47.9%	42.7%	47.9%	37.4%	36.5%
European-to-US	47.6%	44.2%	55.6%	46.6%	46.1%	43.8%	44.0%	46.5%	53.3%	47.5%	59.3%	60.5%
US-to-Other	4.4%	4.9%	5.7%	5.4%	4.4%	3.8%	4.9%	5.6%	4.0%	4.6%	3.3%	3.0%
2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
US Interdealer	45.9%	45.8%	47.0%	50.3%	39.3%	45.3%						
European-to-US	50.9%	51.1%	49.7%	45.6%	57.3%	50.9%						
US-to-Other	3.2%	3.1%	3.3%	4.0%	3.4%	3.8%						



Table 10: The US Market for US Dollar IRS (\$ billions)

2013	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
US Interdealer	530	604	428	647	598	675	562	573	503	534	604	519
European-to-US	599	670	536	637	575	700	589	540	590	522	627	526
US-to-Other	44	37	39	42	43	62	55	41	59	57	44	69
Total	1,173	1,311	1,004	1,325	1,215	1,437	1,207	1,153	1,151	1,113	1,275	1,114
2014	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
US Interdealer	720	597	572	599	706	859	625	478	683	698	441	632
European-to-US	715	518	821	583	657	718	539	464	852	693	699	1049
US-to-Other	66	58	84	68	63	62	59	56	64	67	39	51
Total	1,502	1,173	1,477	1,250	1,426	1,638	1,224	998	1,599	1,459	1,178	1,732
2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
US Interdealer	596	621	637	546	560	623						
European-to-US	662	693	673	495	818	701						
US-to-Other	42	42	45	44	49	52						
Total	1,300	1,356	1,356	1,084	1,427	1,376						

Table 11: The Global Market for US Dollar IRS (% of Market Share)

2013	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	37.3%	34.7%	36.2%	34.4%	37.0%	38.2%	38.3%	35.8%	35.8%	43.0%	40.9%	37.7%
European-to-US	30.8%	31.9%	32.4%	30.3%	28.7%	28.4%	28.4%	28.9%	29.4%	25.5%	27.8%	27.7%
US Interdealer	27.2%	28.8%	25.8%	30.8%	29.9%	27.4%	27.1%	30.6%	25.1%	26.1%	26.8%	27.3%
Other†	4.8%	4.7%	5.6%	4.6%	4.5%	6.0%	6.2%	4.6%	9.7%	5.4%	4.5%	7.3%
2014	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	35.8%	34.0%	37.1%	37.4%	33.8%	29.9%	31.7%	34.8%	29.8%	32.5%	28.3%	28.0%
European-to-US	28.3%	27.4%	32.3%	27.0%	28.9%	29.4%	27.9%	28.4%	35.4%	30.3%	40.6%	41.9%
US Interdealer	28.5%	31.5%	22.5%	27.7%	31.0%	35.2%	32.3%	29.2%	28.4%	30.5%	25.6%	25.2%
Other†	7.5%	7.1%	8.2%	7.9%	6.3%	5.5%	8.1%	7.6%	6.3%	6.6%	5.4%	4.9%
2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	34.3%	30.7%	32.9%	30.4%	28.1%	33.4%						
European-to-US	31.9%	33.6%	32.0%	30.2%	39.6%	32.5%						
US Interdealer	28.7%	30.0%	30.3%	33.3%	27.1%	28.9%						
Other†	5.1%	5.7%	4.8%	6.2%	5.1%	5.3%						

 $\label{thm:control} \mbox{$\mbox{$\dagger$}$ Other represents the percentage of market share represented by $\mbox{$\mbox{$\tt European-to-Asian/Canadian}$ and $\mbox{$\tt US-to-Asian/Canadian}$ interdealers $\mbox{$\tt S$}$ of the percentage of market share represented by $\mbox{$\tt European-to-Asian/Canadian}$ and $\mbox{$\tt US-to-Asian/Canadian}$ interdealers $\mbox{$\tt S$}$ of the percentage of market share represented by $\mbox{$\tt European-to-Asian/Canadian}$ and $\mbox{$\tt US-to-Asian/Canadian}$ interdealers $\mbox{$\tt S$}$ of the percentage of market share represented by $\mbox{$\tt European-to-Asian/Canadian}$ of the percentage of market share represented by $\mbox{$\tt European-to-Asian/Canadian}$ of the percentage of market share represented by $\mbox{$\tt European-to-Asian/Canadian}$ of the percentage o$ 



Table 12: The Global Market for US Dollar IRS (\$ billions)

2013	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	726	729	600	722	740	941	793	670	718	880	921	716
European-to-US	599	670	536	637	575	700	589	540	590	522	627	526
US Interdealer	530	604	428	647	598	675	562	573	503	534	604	519
Other†	94	98	92	96	89	147	129	86	195	110	100	138
Total	1,949	2,102	1,657	2,102	2,002	2,463	2,074	1,869	2,006	2,045	2,252	1,899
2014	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	905	643	942	808	769	729	612	570	717	745	487	700
European-to-US	715	518	821	583	657	718	539	464	852	693	699	1,049
US Interdealer	720	597	572	599	706	859	625	478	683	698	441	632
Other†	189	134	208	171	144	134	157	124	152	152	93	124
Total	2,530	1,893	2,543	2,161	2,275	2,439	1,933	1,636	2,404	2,288	1,719	2,505
2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
European Interdealer	713	633	693	499	581	721						
European-to-US	662	693	673	495	818	701						
US Interdealer	596	621	637	546	560	623						
Other†	105	118	102	102	105	115						
Total	2,076	2,065	2,106	1,641	2,064	2,159						

†Other represents the percentage of market share represented by European-to-Asian/Canadian and US-to-Asian/Canadian interdealers



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ISDA has published several research papers on the fragmentation of liquidity pools:

- Cross-Border Fragmentation of Global OTC Derivatives: An Empirical Analysis, January 2014: http://isda.link/crossborderanalysis
- *Made-Available-to-Trade (MAT): Evidence of Further Market Fragmentation,* April 2014: http://isda.link/matstudy
- Revisiting Cross-Border Fragmentation of Global OTC Derivatives: Mid-year 2014 Update, July 2014: http://isda.link/revisitingcrossborder
- Cross-Border Fragmentation of Global Derivatives: End-Year 2014 Update, April 2015: http://www2.isda.org/attachment/NzUzMQ==/Market%20fragmentation%20FINAL.pdf

# Recent research reports include:

- ISDA Insight: A Survey of Issues and Trends for the Derivatives End-user Community, January 2015: http://www2.isda.org/attachment/NzE3Ng==/ISDA%20Insight%20End%20User%20 Survey%20January%202015%20FINAL.pdf
- OTC Derivatives Market Analysis: Interest Rate Derivatives, January 2015: http://www2.isda.org/attachment/NzIxMQ==/OTC%20Derivatives%20Market%20Analysis-%20Interest%20Rate%20Derivatives%20FINAL.pdf
- The Impact of Compression on the Interest Rate Derivatives Market, July 2015: http://www2.isda.org/attachment/Nzc10A==/Compression Report July 2015 FINAL.pdf
- SwapsInfo Second Quarter 2015 Review, August 2015: http://www2.isda.org/attachment/ Nzc5Mw==/ISDA%20SwapsInfo%20Q2%202015%20Review%20FINAL.pdf

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