



Research Note

Interest Rate Derivatives Trading Activity Reported in EU, UK and US Markets: Full Year 2022 and the Fourth Quarter of 2022

This report analyzes interest rate derivatives (IRD) trading activity reported in Europe. The analysis shows European IRD transactions based on the location of reporting venues (EU versus UK), currency, product taxonomy and execution venue. The report also compares European-reported IRD trading activity to what is reported in the US.

The analysis is based on transactions publicly reported by 30 European approved publication arrangements (APAs) and trading venues (TVs). US trading activity analysis is based on information from the Depository Trust & Clearing Corporation's (DTCC) swap data repository (SDR), which only includes trades that are required to be disclosed under US Commodity Futures Trading Commission (CFTC) regulations.

EXECUTIVE SUMMARY

European IRD Trading Activity¹

In the full year 2022:

- European IRD trading activity reported by APAs and TVs in the EU and UK was \$184.4 trillion, while trade count totaled 1.2 million.
- Euro-denominated IRD traded notional was \$93.7 trillion and accounted for 50.8% of total European IRD traded notional. Sterling-denominated traded notional was \$35.2 trillion and comprised 19.1% of European IRD traded notional. Contracts denominated in US dollars totaled \$33.7 trillion, accounting for 18.3% of the European total. Other currencies comprised 11.8% of European IRD traded notional².
- Overnight index swaps (OIS) traded notional was \$93.1 trillion (50.5% of total European IRD traded notional). Fixed-for-floating interest rate swaps (IRS) traded notional was \$55.2 trillion and accounted for 30.0% of the European total. Forward rate agreement (FRA) traded notional was \$27.9 trillion and represented 15.1% of European IRD traded notional.
- 44.8% of European IRD traded notional took place on TVs and 44.0% was executed by systematic internalizers (SIs)³. The remaining 11.2% of IRD traded notional was reported as XOFF⁴.

In the fourth quarter of 2022:

- European IRD traded notional reported by APAs and TVs in the EU and UK was \$38.6 trillion, down by 0.2% from \$38.7 trillion in the fourth quarter of 2021.
- Euro-denominated IRD traded notional increased by 43.7% to \$21.7 trillion in the fourth quarter of 2022 compared to \$15.1 trillion in the fourth quarter of 2021 and accounted for 56.2% of total European IRD traded notional. Sterling-denominated transactions fell by 31.7% to \$8.5 trillion from \$12.4 trillion and comprised 21.9% of the European total. Contracts denominated in US dollars declined by 35.8% to \$4.6 trillion from \$7.1 trillion, equating to 11.8% of European traded notional. Other currencies accounted for 10.1% of European IRD traded notional.
- OIS traded notional rose by 22.1% to \$21.7 trillion in the fourth quarter of 2022 (56.1% of total European IRD traded notional) from \$17.7 trillion in the fourth quarter of 2021. Fixed-for-floating IRS traded notional dropped by 29.3% to \$11.0 trillion from \$15.5 trillion and accounted for 28.4% of the European total. FRA traded notional grew by 20.9% to \$4.3 trillion from \$3.5 trillion and represented 11.1% of European IRD traded notional.
- 49.9% of European IRD traded notional took place on TVs and 37.3% was executed by SIs. The remaining 12.7% of IRD traded notional was reported as XOFF.

¹ European interest rate derivatives (IRD) trading activity is measured by IRD traded notional and trade count reported by approved publication arrangements (APAs) and trading venues (TVs) in EU and UK. The list of APAs and TVs is included in Appendix 1

² Other currencies include Czech koruna, Japanese yen, Norwegian krone, Polish zloty, South African rand, Swedish krona and 'other'. Cross-currency swaps are also included in other currencies

³ This includes financial instruments admitted to trading or traded on a trading venue, where a transaction in that financial instrument is executed by a systematic internalizer (SI). SIs are investment firms that deal on their own account by executing client orders outside a regulated market (RM) or TV

⁴ The XOFF market identifier code is used for financial instruments admitted to trading or traded on a trading venue or for which a request for admission was made, where the transaction on that financial instrument is not executed on a trading venue, SI or organized trading platform outside of the EU and UK, or where an investment firm does not know it is trading with another investment firm acting as an SI

UK IRD Trading Activity

In the full year 2022:

- IRD traded notional reported by APAs and TVs in the UK was \$134.6 trillion, representing 73.0% of total European IRD traded notional.
- Euro-denominated IRD traded notional was \$54.3 trillion, sterling-denominated IRD traded notional totaled \$34.3 trillion and US dollar-denominated IRD was \$28.6 trillion. Euro-, sterling- and US-denominated transactions accounted for 40.3%, 25.5% and 21.3% of total UK IRD traded notional, respectively. Other currencies accounted for 12.9% of the UK total.
- OIS traded notional totaled \$76.9 trillion, fixed-for-floating IRS traded notional was \$32.6 trillion and FRA traded notional was \$17.9 trillion. OIS transactions accounted for 57.1% of total UK IRD traded notional, fixed-for-floating IRS comprised 24.2% and FRAs represented 13.3%.
- 42.6% of UK IRD traded notional occurred on TVs, 44.4% was executed by SIs and 13.0% was reported as XOFF.

In the fourth quarter of 2022:

- IRD traded notional reported by APAs and TVs in the UK fell by 6.6% to \$27.0 trillion in the fourth quarter of 2022 compared to \$28.9 trillion in the fourth quarter of 2021, representing 69.9% of total European IRD traded notional.
- Euro-denominated IRD traded notional increased by 58.2% to \$11.8 trillion in the fourth quarter of 2022 compared to \$7.5 trillion in the fourth quarter of 2021. US dollar-denominated IRD dropped by 38.2% to \$3.8 trillion from \$6.2 trillion over the same period. Sterling-denominated IRD traded notional fell by 32.1% to \$8.3 trillion from \$12.2 trillion. Euro-, sterling- and US dollar-denominated transactions accounted for 43.6%, 30.6% and 14.2% of total UK IRD traded notional, respectively. Other currencies accounted for 11.6% of the UK total.
- OIS traded notional rose by 13.3% to \$17.0 trillion in the fourth quarter of 2022 from \$15.0 trillion in the fourth quarter of 2021. Fixed-for-floating IRS traded notional declined by 41.2% to \$5.8 trillion from \$9.8 trillion, while FRA transactions increased by 14.2% to \$2.7 trillion from \$2.4 trillion over the same period. OIS accounted for 62.8% of total UK IRD traded notional, fixed-for-floating IRS comprised 21.4% and FRAs represented 10.1%.
- 48.3% of UK IRD traded notional occurred on TVs, 36.5% was executed by SIs and 15.2% was reported as XOFF.

EU IRD Trading Activity

In the full year 2022:

- IRD traded notional reported by APAs and TVs in the EU was \$49.7 trillion, accounting for 27.0% of total European IRD traded notional.
- Euro-denominated IRD traded notional was \$39.5 trillion and accounted for 79.4% of total EU IRD traded notional. US dollar-denominated IRD was \$5.1 trillion and represented 10.3% of the EU total. Sterling-denominated IRD comprised 1.7% of EU traded notional, while other currencies accounted for 8.7%.
- Fixed-for-floating IRS traded notional was \$22.7 trillion, OIS traded notional was \$16.2 trillion and FRA traded notional was \$10.0 trillion. Fixed-for-floating IRS accounted for 45.6% of total EU IRD traded notional. OIS and FRAs comprised 32.6% and 20.1% of EU IRD traded notional, respectively.
- 50.7% of EU IRD traded notional took place on TVs, 43.0% was executed by SIs and 6.3% was reported as XOFF.

In the fourth quarter of 2022:

- IRD traded notional reported by APAs and TVs in the EU grew by 18.4% to \$11.6 trillion in the fourth quarter of 2022 versus \$9.8 trillion in the fourth quarter of 2021, accounting for 30.1% of total European IRD traded notional.
- Euro-denominated IRD traded notional rose by 29.6% to \$9.9 trillion in the fourth quarter of 2022 from \$7.7 trillion in the fourth quarter of 2021 and accounted for 85.6% of total EU IRD traded notional. US dollar-denominated IRD fell by 19.2% to \$720.5 billion from \$891.2 billion and represented 6.2% of EU IRD traded notional. Sterling-denominated IRD comprised 1.7% of EU traded notional, while other currencies accounted for 6.5%.
- OIS traded notional grew by 70.1% to \$4.7 trillion in the fourth quarter of 2022 from \$2.8 trillion in the fourth quarter of 2021, while FRA traded notional increased by 34.7% to \$1.6 trillion from \$1.2 trillion over the same period. Fixed-for-floating IRS traded notional dropped by 8.6% to \$5.2 trillion from \$5.7 trillion in the fourth quarter of 2021. OIS and FRAs comprised 40.6% and 13.3% of total EU IRD traded notional, respectively, while fixed-for-floating IRS accounted for 44.5%.
- 53.6% of EU IRD traded notional took place on TVs, 39.4% was executed by SIs and 7.0% was reported as XOFF.

European and US IRD Trading Activity

In the full year 2022:

- IRD traded notional reported in the US totaled \$292.8 trillion⁵ and combined EU, UK and US traded notional was \$477.2 trillion. US-reported traded notional accounted for 61.4% of the combined total, while the EU- and UK-reported traded notional made up 10.4% and 28.2%, respectively.
- Of the combined \$477.2 trillion in EU, UK and US IRD traded notional, 35.8% was denominated in US dollars, 39.5% was in euros and 12.4% was in sterling. Other currencies accounted for 12.3% of the total, with Australian dollar, Canadian dollar and Swedish krona representing the largest share.
- US dollar-denominated IRD traded notional was \$170.7 trillion, of which 80.2% was reported in the US, 16.8% was reported in the UK and 3.0% was reported in the EU.
- Euro-denominated IRD traded notional was \$188.6 trillion. The total was split between the three jurisdictions, with 20.9% reported in the EU, 28.8% in the UK and 50.3% in the US.
- Sterling-denominated IRD traded notional was \$59.0 trillion, with 58.2% reported in the UK, 40.4% reported in the US and 1.4% reported in the EU.
- OIS accounted for 47.9% of total EU, UK and US IRD traded notional, while single currency fixed-for-floating IRS and FRAs made up 29.5% and 13.8%, respectively.

In the fourth quarter of 2022:

- IRD traded notional reported in the US grew by 11.6% to \$67.5 trillion in the fourth quarter of 2022 compared to \$60.4 trillion in the fourth quarter of 2021. Combined EU, UK and US traded notional increased by 7.0% to \$106.1 trillion from \$99.2 trillion over the same period. US-reported traded notional accounted for 63.6% of the combined total, while the EU and UK made up 11.0% and 25.5%, respectively.

⁵ Based on data from the Depository Trust & Clearing Corporation (DTCC) swap data repository (SDR). This data covers only transactions required to be disclosed under US Commodity Futures Trading Commission (CFTC) regulations. Most recent data on US trading activity is available on the ISDA SwapsInfo website <http://swapsinfo.org>

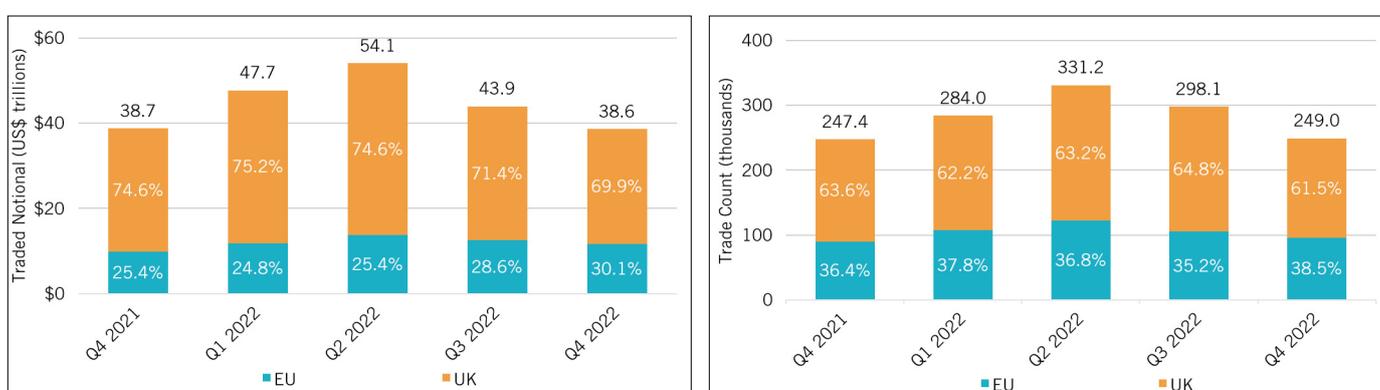
- Of the combined \$106.1 trillion in EU, UK and US IRD traded notional, 32.1% was denominated in US dollars, 41.8% was in euros and 13.8% was in sterling. Other currencies accounted for 12.3% of the total, with Australian dollar, Canadian dollar and Japanese yen representing the largest share.
- US dollar-denominated IRD traded notional fell by 11.9% to \$34.0 trillion in the fourth quarter of 2022 from \$38.6 trillion in the fourth quarter of 2021. 86.6% of US dollar-denominated IRD traded notional was reported in the US, 11.2% was reported in the UK and 2.1% was reported in the EU.
- Euro-denominated IRD traded notional grew by 63.0% to \$44.3 trillion from \$27.2 trillion, of which 22.4% was reported in the EU, 26.6% was reported in the UK and 51.0% was reported in the US.
- Sterling-denominated IRD traded notional declined by 32.4% to \$14.6 trillion in the fourth quarter of 2022 from \$21.7 trillion in the fourth quarter of 2021. 56.4% of sterling-denominated IRD traded notional was reported in the UK, 42.2% was reported in the US and 1.4% was reported in the EU.
- OIS accounted for 51.9% of total EU, UK and US IRD traded notional, while single currency fixed-for-floating IRS and FRAs made up 25.8% and 13.1%, respectively.

EUROPEAN IRD TRADING ACTIVITY

European IRD trading activity reported by APAs and TVs in the EU and UK fell by 0.2% to \$38.6 trillion in the fourth quarter of 2022 from \$38.7 trillion in the fourth quarter of 2021. Trade count increased by 0.6% to 249.0 thousand versus 247.4 thousand over the same period.

Traded notional reported in the UK accounted for 69.9% of total European IRD traded notional and traded notional reported in the EU comprised 30.1%. UK-reported trade count made up 61.5% of the European total, while the EU accounted for 38.5% (see Chart 1)⁶.

Chart 1: European IRD Traded Notional and Trade Count



Source: European APAs and TVs

Euro-denominated IRD traded notional rose by 43.7% to \$21.7 trillion in the fourth quarter of 2022 from \$15.1 trillion in the fourth quarter of 2021 and accounted for 56.2% of total European traded notional. Euro-denominated contracts made up 52.3% of European trade count (see Chart 2).

Sterling-denominated IRD traded notional fell by 31.7% to \$8.5 trillion in the fourth quarter of 2022 from \$12.4 trillion in the fourth quarter of 2021, while US dollar IRD traded notional declined by 35.8% to \$4.6 trillion from \$7.1 trillion over the same period.

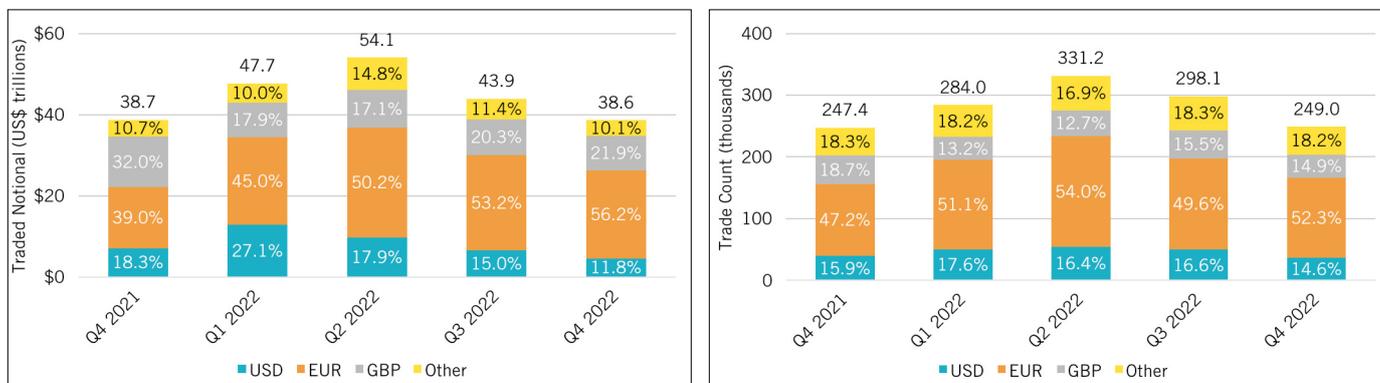
Sterling-denominated transactions comprised 21.9% of total European traded notional and 14.9% of trade count, while US dollar contracts represented 11.8% of European traded notional and 14.6% of trade count.

Other currencies accounted for 10.1% of total European IRD traded notional and 18.2% of trade count, with Australian dollar and Swedish krona representing the largest share⁷.

⁶ ISDA's dataset of European data starts in May 2021. See Interest Rate Derivatives Trading Activity Reported in EU, UK and US Markets: May 2021 www.isda.org/a/h6TgE/Interest-Rate-Derivatives-Trading-Activity-Reported-in-EU-UK-and-US-Markets-May-2021.pdf

⁷ Other currencies include South African rand, Japanese yen, Swedish krona, Norwegian krone, Polish złoty, Czech koruna and 'other'. Cross-currency swaps are also included in other currencies

Chart 2: European IRD Traded Notional and Trade Count by Currency



Source: European APAs and TVs

OIS traded notional increased by 22.1% to \$21.7 trillion in the fourth quarter of 2022 from \$17.7 trillion in the fourth quarter of 2021 and represented 56.1% of total European IRD traded notional. OIS contracts made up 35.1% of European trade count (see Chart 3).

Fixed-for-floating IRS traded notional fell by 29.3% to \$11.0 trillion in the fourth quarter of 2022 from \$15.5 trillion in the fourth quarter of 2021. FRA traded notional rose by 20.9% to \$4.3 trillion from \$3.5 trillion over the same period.

Fixed-for-floating IRS accounted for 28.4% of total European IRD traded notional and 50.5% of trade count in the fourth quarter of 2022, while FRAs represented 11.1% and 3.4% of European traded notional and trade count, respectively.

Chart 3: European IRD Traded Notional and Trade Count by Product

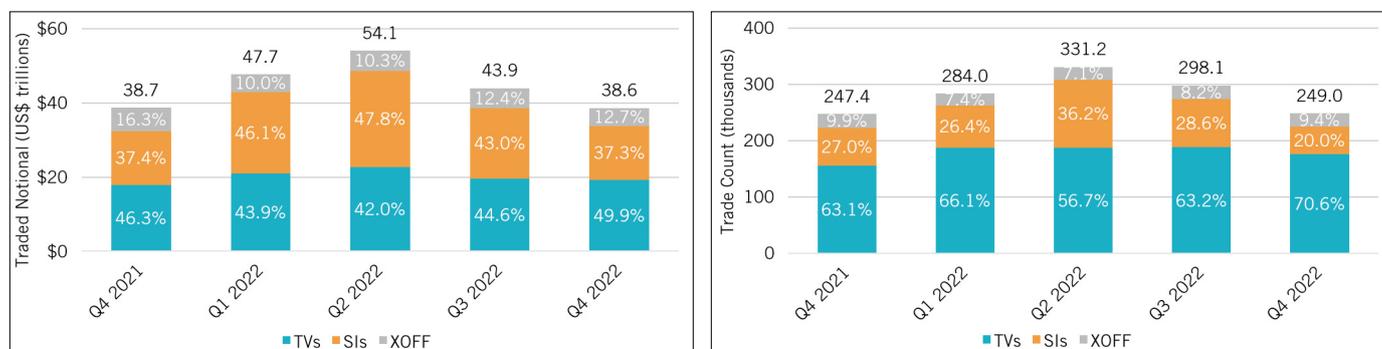


Source: European APAs and TVs

In the fourth quarter of 2022, 49.9% of total European IRD traded notional and 70.6% of trade count took place on TVs, 37.3% of traded notional and 20.0% of trade count was executed by SIs, and 12.7% of traded notional and 9.4% of trade count was reported as XOFF⁸ (see Chart 4).

⁸ The XOFF market identifier code is used for financial instruments admitted to trading or traded on a trading venue or for which a request for admission was made, where the transaction on that financial instrument is not executed on a trading venue, SI or organized trading platform outside of the EU and UK, or where an investment firm does not know it is trading with another investment firm acting as an SI

Chart 4: European IRD Traded Notional and Trade Count by Execution Venue



Source: European APAs and TVs

UK IRD TRADING ACTIVITY

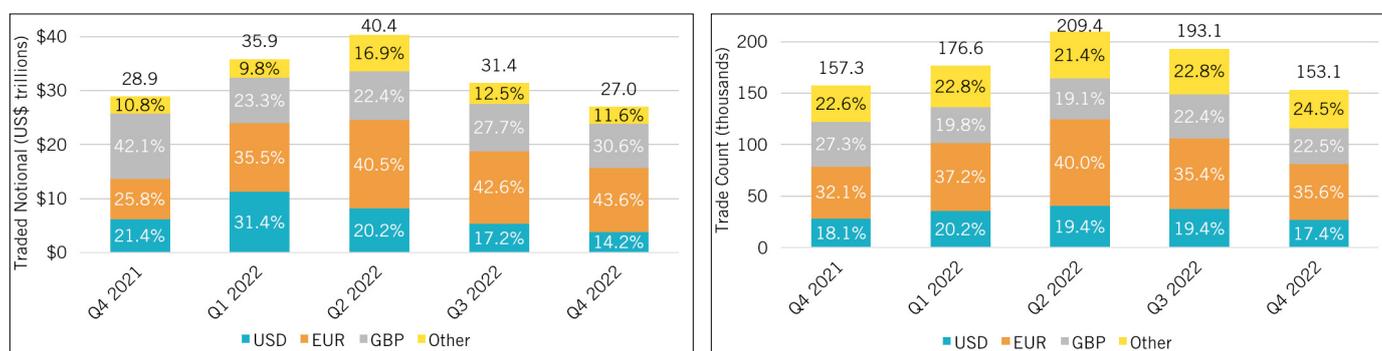
IRD traded notional reported by APAs and TVs in the UK dropped by 6.6% to \$27.0 trillion in the fourth quarter of 2022 from \$28.9 trillion in the fourth quarter of 2021. Trade count declined by 2.6% to 153.1 thousand from 157.3 thousand over the same period.

Euro-denominated IRD traded notional rose by 58.2% to \$11.8 trillion in the fourth quarter of 2022 from \$7.5 trillion in the fourth quarter of 2021, sterling-denominated IRD traded notional fell by 32.1% to \$8.3 trillion from \$12.2 trillion, and US dollar-denominated IRD traded notional dropped by 38.2% to \$3.8 trillion from \$6.2 trillion.

Euro-denominated transactions represented 43.6% of total UK IRD traded notional and 35.6% of trade count, sterling-denominated IRD accounted for 30.6% of UK IRD traded notional and 22.5% of trade count, and US dollar-denominated IRD made up 14.2% and 17.4% of UK IRD traded notional and trade count, respectively (see Chart 5).

Other currencies accounted for 11.6% of total UK IRD traded notional and 24.5% of trade count. Australian dollar and Swedish krona represented the largest share of other currencies.

Chart 5: UK IRD Traded Notional and Trade Count by Currency



Source: European APAs and TVs

OIS traded notional grew by 13.3% to \$17.0 trillion in the fourth quarter of 2022 from \$15.0 trillion in the fourth quarter of 2021. Fixed-for-floating IRS traded notional fell by 41.2% to \$5.8 trillion from \$9.8 trillion and FRA traded notional increased by 14.2% to \$2.7 trillion from \$2.4 trillion over the same period.

OIS transactions accounted for 62.8% of total UK IRD traded notional and 42.1% of trade count. Single currency fixed-for-floating IRS comprised 21.4% of traded notional and 39.9% of trade count, while FRAs made up 10.1% and 3.3% of UK traded notional and trade count, respectively (see Chart 6).

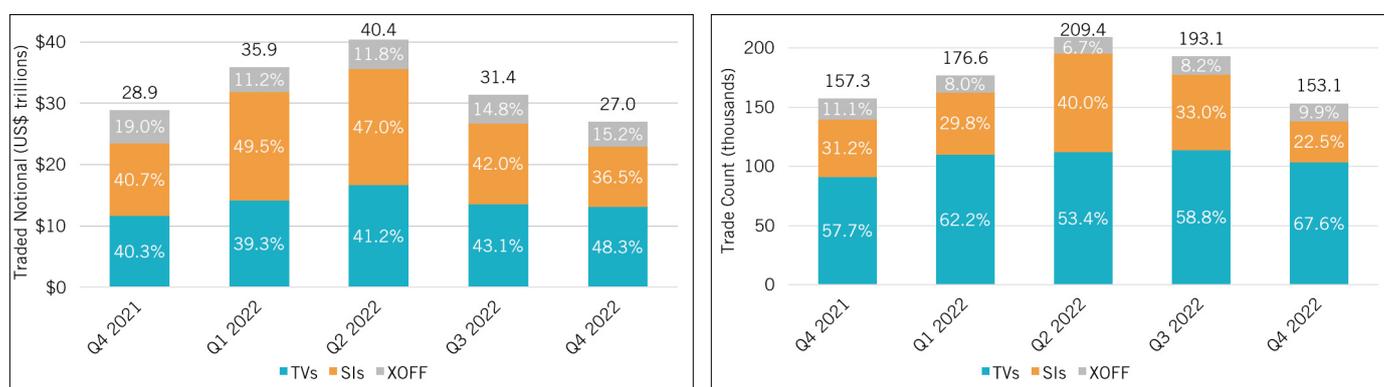
Chart 6: UK IRD Traded Notional and Trade Count by Product



Source: European APAs and TVs

In the fourth quarter of 2022, 48.3% of UK IRD traded notional and 67.6% of trade count occurred on TVs, 36.5% of traded notional and 22.5% of trade count was executed by SIs, and 15.2% of traded notional and 9.9% of trade count was reported as XOFF (see Chart 7).

Chart 7: UK IRD Traded Notional and Trade Count by Execution Venue



Source: European APAs and TVs

EU IRD TRADING ACTIVITY

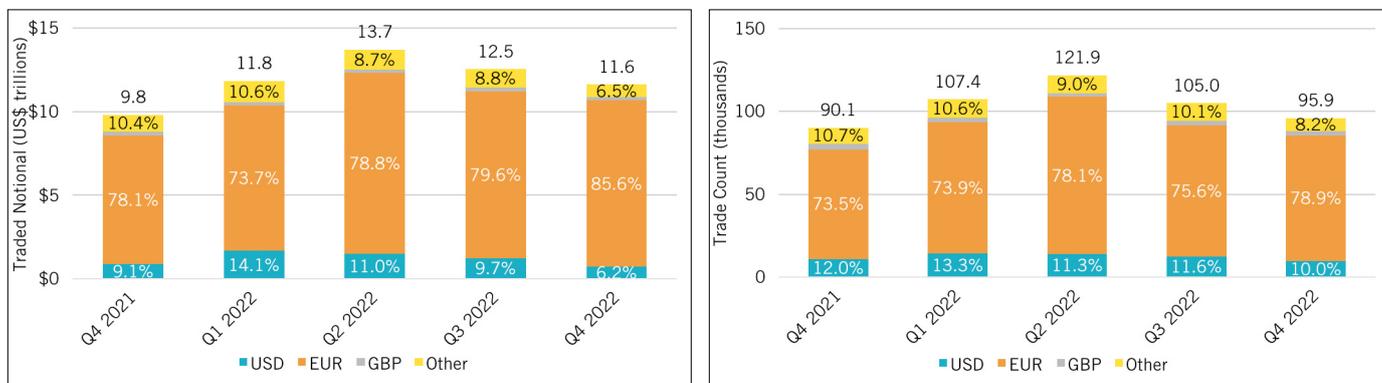
IRD traded notional reported by APAs and TVs in the EU increased by 18.4% to \$11.6 trillion in the fourth quarter of 2022 versus \$9.8 trillion in the fourth quarter of 2021. Trade count rose by 6.4% to 95.9 thousand from 90.1 thousand over the same period.

Euro-denominated IRD traded notional grew by 29.6% to \$9.9 trillion in the fourth quarter of 2022 from \$7.7 trillion in the fourth quarter of 2021 and comprised 85.6% of total EU traded notional. The number of contracts denominated in euro increased by 14.3% to 75.7 thousand from 66.2 thousand and accounted for 78.9% of EU trade count.

US dollar-denominated IRD traded notional dropped by 19.2% to \$720.5 billion in the fourth quarter of 2022 from \$891.2 billion in the fourth quarter of 2021 and accounted for 6.2% of total EU IRD traded notional and 10.0% of trade count. Sterling-denominated transactions represented 1.7% and 2.8% of EU IRD traded notional and trade count, respectively (see Chart 8).

Other currencies accounted for 6.5% of EU IRD traded notional and 8.2% of trade count, with Australian dollar and Swedish krona representing the largest share.

Chart 8: EU IRD Traded Notional and Trade Count by Currency



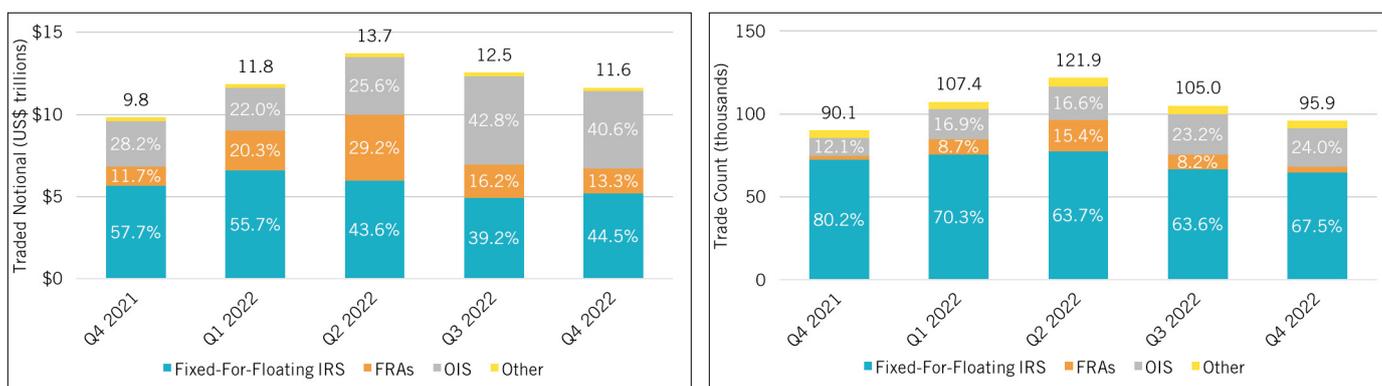
Source: European APAs and TVs

The composition of swaps reported in the EU differed from the UK, with a larger share of fixed-for-floating IRS and a smaller share of OIS.

Fixed-for-floating IRS traded notional declined by 8.6% to \$5.2 trillion in the fourth quarter of 2022 versus \$5.7 trillion in the fourth quarter of 2021 and comprised 44.5% of the EU total. Fixed-for-floating IRS made up 67.5% of EU trade count.

OIS traded notional grew by 70.1% to \$4.7 trillion in the fourth quarter of 2022 from \$2.8 trillion in the fourth quarter of 2021. FRA traded notional rose by 34.7% to \$1.6 trillion from \$1.2 trillion over the same period. OIS and FRAs accounted for 40.6% and 13.3% of total EU IRD traded notional and 24.0% and 3.6% of trade count, respectively (see Chart 9).

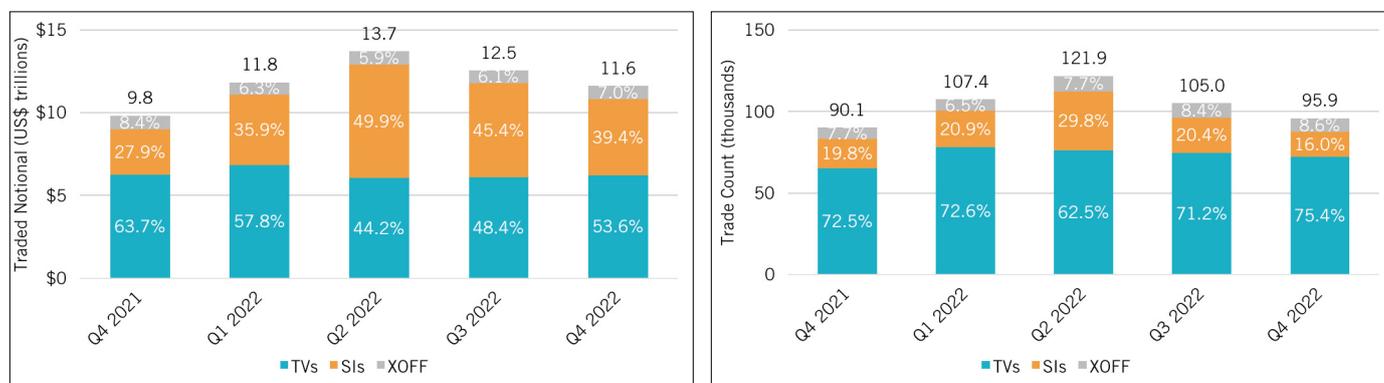
Chart 9: EU IRD Traded Notional and Trade Count by Product



Source: European APAs and TVs

In the fourth quarter of 2022, 53.6% of EU IRD traded notional and 75.4% of EU IRD trade count took place on TVs, 39.4% of traded notional and 16.0% of trade count was executed by SIs, and 7.0% of traded notional and 8.6% of trade count was reported as XOFF (see Chart 10).

Chart 10: EU IRD Traded Notional and Trade Count by Execution Venue



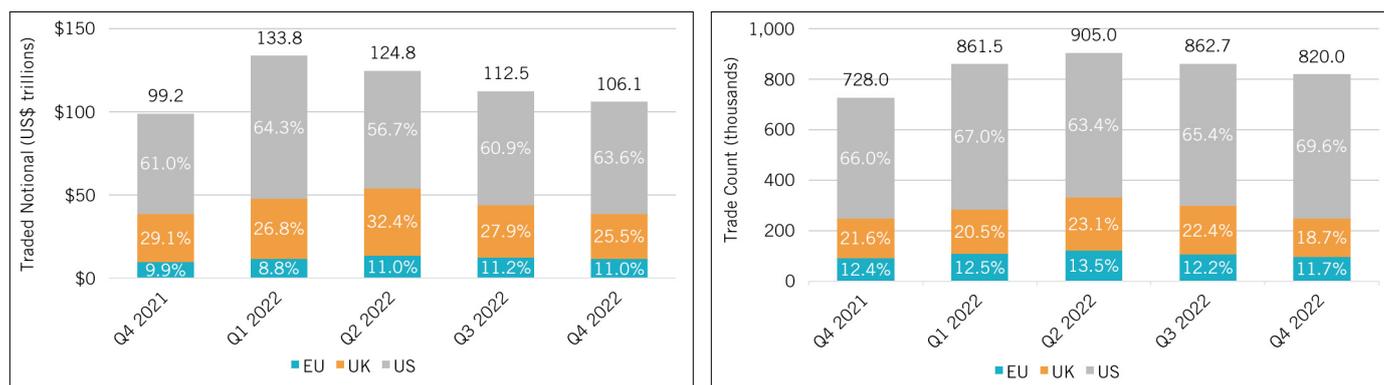
Source: European APAs and TVs

EUROPEAN AND US IRD TRADING ACTIVITY

IRD traded notional reported in the US grew by 11.6% to \$67.5 trillion in the fourth quarter of 2022 from \$60.4 trillion in the fourth quarter of 2021, while trade count rose by 18.8% to 571.0 thousand from 480.5 thousand⁹. Combined EU, UK and US traded notional increased by 7.0% to \$106.1 trillion from \$99.2 trillion and combined trade count grew by 12.6% to 820.0 thousand from 728.0 thousand.

US-reported IRD traded notional accounted for 63.6% of combined EU, UK and US traded notional, while the EU and UK comprised 11.0% and 25.5%, respectively. US-reported transactions represented 69.6% of total trade count, the EU made up 11.7% and the UK accounted for 18.7% (see Chart 11).

Chart 11: US, UK and EU Traded Notional and Trade Count



Source: DTCC SDR, European APAs and TVs

Of the combined \$106.1 trillion in EU, UK and US IRD traded notional, 41.8% was denominated in euros, 32.1% was in US dollars and 13.8% was in sterling. Of the 820.0 thousand in combined trade count, 33.5% was denominated in euros, 29.5% was in US dollars and 10.6% was in sterling (see Chart 12).

Other currencies accounted for 12.3% of combined IRD traded notional and 26.4% of trade count, with Australian dollar, Canadian dollar and Japanese yen representing the largest share.

⁹ Based on data from the DTCC SDR. This data covers only transactions required to be disclosed under US CFTC regulations. Most recent data on US trading activity is available on the ISDA SwapsInfo website <http://swapsinfo.org>

Chart 12: Combined US, UK and EU IRD Traded Notional and Trade Count by Currency

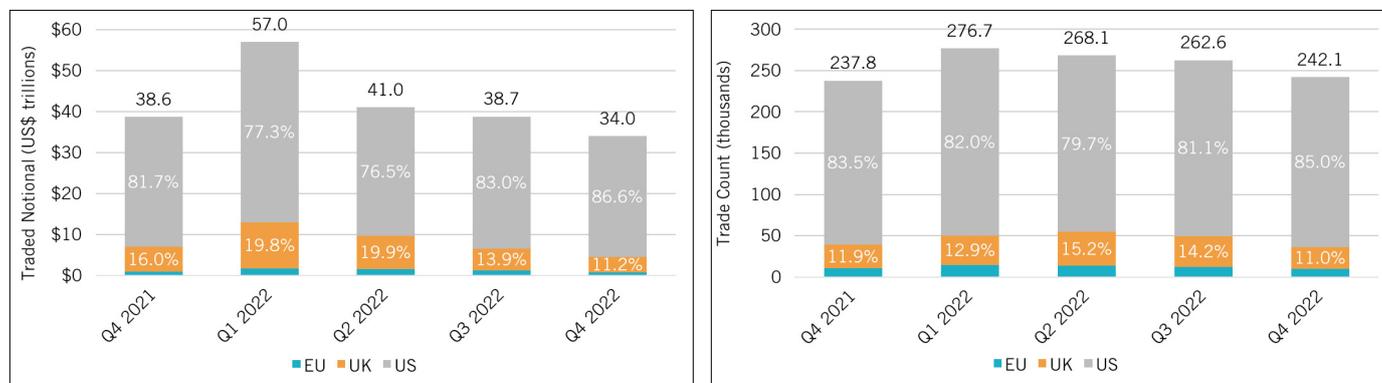


Source: DTCC SDR, European APAs and TVs

US dollar-denominated IRD traded notional dropped by 11.9% to \$34.0 trillion in the fourth quarter of 2022 from \$38.6 trillion in the fourth quarter of 2021. Trade count increased by 1.8% to 242.1 thousand from 237.8 thousand over the same period.

86.6% of combined US dollar-denominated IRD traded notional and 85.0% of trade count was reported in the US and 11.2% of traded notional and 11.0% of trade count was reported in the UK (see Chart 13).

Chart 13: Combined US Dollar-denominated IRD Traded Notional and Trade Count by Jurisdiction



Source: DTCC SDR, European APAs and TVs

Euro-denominated IRD traded notional grew by 63.0% to \$44.3 trillion in the fourth quarter of 2022 from \$27.2 trillion in the fourth quarter of 2021, while trade count rose by 28.5% to 274.5 thousand from 213.7 thousand.

Reporting of euro-denominated IRD transactions was split between the three jurisdictions: 22.4% of traded notional and 27.6% of trade count was reported in the EU, 26.6% of traded notional and 19.9% of trade count was reported in the UK, and 51.0% of traded notional and 52.5% of trade count was reported in the US (see Chart 14).

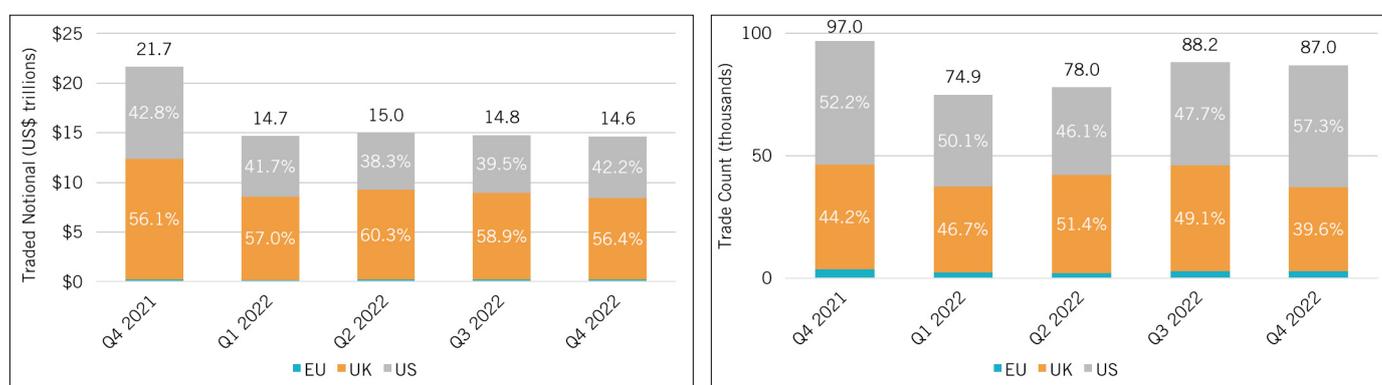
Chart 14: Combined Euro-denominated IRD Traded Notional and Trade Count by Jurisdiction



Source: DTCC SDR, European APAs and TVs

Sterling-denominated IRD traded notional dropped by 32.4% to \$14.6 trillion in the fourth quarter of 2022 from \$21.7 trillion the fourth quarter of 2021, while trade count fell by 10.3% to 87.0 thousand from 97.0 thousand. 56.4% of sterling-denominated IRD traded notional and 39.6% of trade count was reported in the UK and 42.2% of traded notional and 57.3% of trade count was reported in the US (see Chart 15).

Chart 15: Combined Sterling-denominated IRD Traded Notional and Trade Count by Jurisdiction



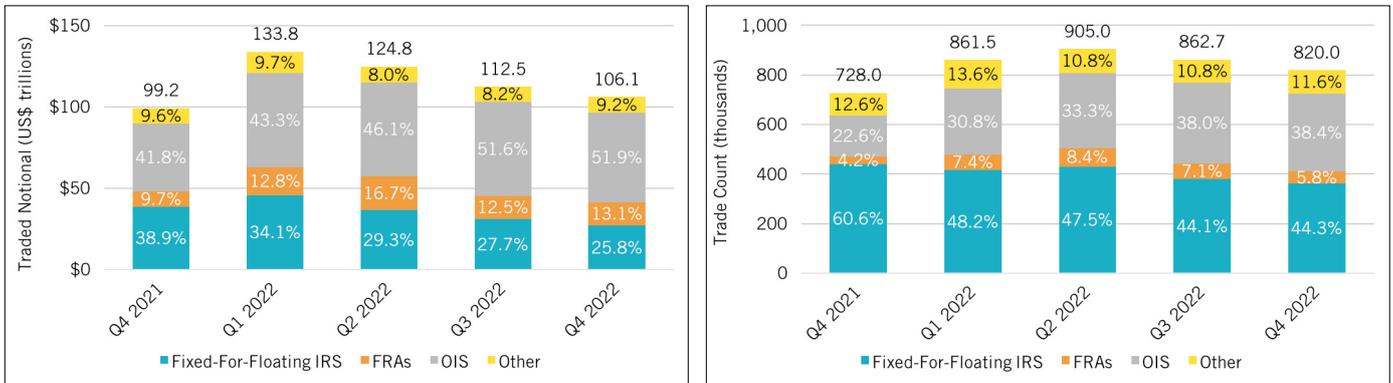
Source: DTCC SDR, European APAs and TVs

OIS traded notional grew by 32.7% to \$55.1 trillion in the fourth quarter of 2022 from \$41.5 trillion in the fourth quarter of 2021 and represented 51.9% of combined IRD traded notional. OIS trade count increased by 91.1% to 314.9 thousand from 164.7 thousand and accounted for 38.4% of the combined total.

Single currency fixed-for-floating IRS traded notional dropped by 29.0% to \$27.4 trillion in the fourth quarter of 2022 from \$38.6 trillion in the fourth quarter of 2021. Trade count declined by 17.7% to 363.1 thousand from 441.1 thousand over the same period. Fixed-for-floating IRS accounted for 25.8% of combined EU, UK and US IRD traded notional and 44.3% of trade count.

FRA traded notional increased by 44.6% to \$13.9 trillion in the fourth quarter of 2022 from \$9.6 trillion in the fourth quarter of 2021. FRA trade count rose by 54.2% to 47.3 thousand from 30.7 thousand over the same period. FRAs accounted for 13.1% of combined EU, UK and US IRD traded notional and 5.8% of trade count (see Chart 16).

Chart 16: Combined US, UK and EU IRD Traded Notional and Trade Count by Product



Source: DTCC SDR, European APAs and TVs

APPENDIX 1: LIST OF MAJOR VENUES REPORTING OTC IRD TRANSACTIONS INCLUDED IN THE ISDA EUROPEAN IRD MARKETS DATASET

Venue Name	Venue Type	MIC	Region
Aurel BGC Paris	OTF	AURO	EU
BGC Brokers LP	OTF	BGCO	UK
Bloomberg BV APA	APA	BAPE	EU
Bloomberg BV MTF	MTF	BTFE	EU
Bloomberg UK APA	APA	BAPA	UK
Bloomberg UK MTF	MTF	BMTF	UK
GFI Brokers Limited	OTF	GFBO	UK
GFI Paris	OTF	GFPO	EU
GFI Securities Limited	OTF	GFSO	UK
ICAP EU OTF	OTF	ICOT	EU
ICAP Global Derivatives MTF	MTF	IGDL	UK
ICAP Securities OTF	OTF	IOTF	UK
iSWAP EU MTF	MTF	ISWP	EU
TP ICAP EU MTF	MTF	TPIC	EU
TP ICAP UK MTF	MTF	ICPM	UK
TRADEcho NL	APA	ECEU	EU
TRADEcho UK	APA	ECHO	UK
Tradeweb BV APA	APA	TWEA	EU
Tradeweb BV MTF	MTF	TWEM	EU
Tradeweb UK APA	APA	TREA	UK
Tradeweb UK MTF	MTF	TREU	UK
Tradition	OTF	TCDS	UK
Trad-X EU	MTF	TRXE	EU
Trad-X UK	MTF	TRDX	UK
Trax APA	APA	TRAX	UK
Trax NL APA	APA	TRNL	EU
TSAF OTC	OTF	TSAF	EU
Tullett Prebon EU OTF	OTF	TPEU	EU
Tullett Prebon Europe MTF	MTF	TPEL	UK
Tullett Prebon Europe OTF	OTF	TPEO	UK

APPENDIX 2: METHODOLOGY

European Data

ISDA's analysis of European-reported IRD trading data is based on transactions publicly reported by eight European APAs and 22 TVS¹⁰.

Under European post-trade reporting requirements, “[i]nvestment firms which, either on own account or on behalf of clients, conclude transactions in bonds, structured finance products, emission allowances and derivatives traded on a trading venue shall make public the volume and price of those transactions and the time at which they were concluded”¹¹.

Trade information must be publicly disseminated either through an APA or by a TV through which a transaction was executed¹². As of August 2022, there were 15 active APAs registered on the European Securities and Markets Authority's (ESMA) website¹³. In the UK, there were five APAs registered by the Financial Conduct Authority (FCA)¹⁴.

While ISDA's data set doesn't include all APAs and TVS that are registered with ESMA and the FCA, the trades reported by the 30 APAs and TVS included in this analysis are believed to cover most over-the-counter (OTC) IRD activity in Europe.

UK IRD trading activity is measured by IRD traded notional and trade count reported by APAs and TVS located in the UK, while EU IRD trading activity is measured by IRD traded notional and trade count reported by APAs and TVS located in the EU. Of the 30 APAs and TVS covered by this analysis, 17 are located in the UK and 13 are located in the EU.

To collect the data, ISDA set up daily feeds from the eight APAs and 22 TVS¹⁵. ISDA also set up a data feed from the Association of National Numbering Agencies' Derivatives Service Bureau to download new International Securities Identification Numbers (ISINs) for IRD transactions¹⁶. By matching IRD ISINs with all daily reported transactions that include various asset classes (equity, fixed income derivatives, etc), ISDA eliminated all non-IRD transactions and kept only the IRD data.

Using ISIN data, ISDA identified IRD instrument type (swap, option, forward, etc), IRD product taxonomy (fixed-for-floating IRS, FRAs, OIS, etc), underlying reference rate and tenor. Using trade details published by APAs and TVS, ISDA identified publication ID, trade data, publication data, venue of execution, notional amount, notional currency, cleared status and supplementary flags.

The ISDA data set includes only new trades. All cancelled transactions are removed and amended trades are updated using the original ID field. Transactions reported with a four-week aggregation flag and volume omission flag are also removed from the data set.

Reported notional is converted to US dollars based on daily foreign exchange (FX) rates. All reported transactions are aggregated on a daily basis. Monthly traded notional referenced in this report represents the sum of converted traded notional of all transactions executed during the month. Monthly trade count represents the number of all transactions executed during the month.

Due to post-trade transparency deferrals, the majority of European transactions are published with a four- to five-week delay.

¹⁰ The list of APAs and TVS is included in Appendix 1

¹¹ Markets in Financial Instruments Regulation Article 21 www.esma.europa.eu/databases-library/interactive-single-rulebook/clone-mifir/article-21

¹² See Appendix 2 in the Interest Rate Derivatives Trading Activity Reported in EU, UK and US Markets: May 2021 for more detailed information on post-trade reporting requirements in Europe and US www.isda.org/a/MdMgE/Interest-Rate-Derivatives-Trading-Activity-Reported-in-EU-UK-and-US-Markets.pdf

¹³ European Securities and Markets Authority (ESMA) List of Registers https://registers.esma.europa.eu/publication/searchRegister?core=esma_registers_upreg

¹⁴ Financial Conduct Authority, The Financial Services Register https://register.fca.org.uk/s/resources#Other_registers

¹⁵ Most APAs and TVS display data only for a short period of time and no historical data is available

¹⁶ Most APAs and TVS don't disclose asset class data and publish all transactions ISINs

US Data

Analysis of US IRD is based on data from the DTCC SDR that only covers transactions required to be disclosed under US CFTC regulations¹⁷.

In the US, the CFTC swap reporting rules were finalized in December 2011 and required all traded swaps to be reported by the end of 2013. These rules require key swap transaction and pricing data to be reported to US-registered SDRs as soon as technologically practicable after execution.

There are three major SDRs in the US: DTCC SDR (reports all asset classes); CME (reports all asset classes except for equity); and ICE Trade Vault (reports credit, FX and commodities)¹⁸. Almost all OTC IRD are reported by the DTCC SDR.

The DTCC SDR reports execution time stamp, effective date, expiration date, asset class, product taxonomy, notional amount, notional currency, underlying reference rate, execution venue, cleared status and other trade details¹⁹.

ISDA analysis includes only new transactions. All cancelled transactions are removed and amended trades are updated using the dissemination ID field. Reported notional is converted to US dollars based on daily FX rates. All reported transactions are aggregated on a daily basis.

Delays in reporting (generally 15 or 30 minutes, with a maximum of 24 business hours) are allowed for block trades (transactions with a notional above the minimum block size for the relevant asset class) and large notional trades.

Data Limitations

While ISDA believes this data covers the majority of OTC IRD transactions in Europe, it doesn't capture 100% of the market. First, it doesn't cover all APAs and TVs that are registered with ESMA and the FCA. Second, it captures only transactions that are subject to post-trade transparency reporting requirements. OTC derivatives that are not traded on TVs are considered 'traded on a trading venue' (TOTV) – and are therefore subject to the reporting and transparency requirements – if they share the same reference data details as derivatives traded on TVs²⁰. Therefore, OTC derivatives not traded on TVs that are not TOTV are not captured.

When European counterparties face US entities on a swap execution facility (SEF), ESMA does not require EU firms to systematically republish information in the EU about transactions executed on TVs outside the EU that are subject to transparency provisions similar to those applicable to EU TVs. Under US rules, SEFs are required to send relevant trade details to an SDR for real-time public dissemination²¹. Therefore, these trades will be captured in US trading activity only, resulting in a potential understatement of European traded notional.

Trades executed on multilateral trading facilities (MTFs) and organized trading facilities (OTFs) between EU and US counterparties may be disseminated to the public twice. Since EU and US reporting rules have not been determined equivalent, trades executed on MTFs and OTFs are viewed as off-facility transactions for US real-time reporting purposes and are subject to the CFTC reporting rules. At the same time, MTFs and OTFs have an obligation to send trade details for public dissemination. Therefore, these trades may be double counted in European and US combined trading activity analysis.

¹⁷ CFTC 17 CFR Part 43 Real-Time Public Reporting of Swap Transaction Data www.cftc.gov/sites/default/files/idc/groups/public/@lrfederalregister/documents/file/2011-33173a.pdf

¹⁸ Bloomberg SDR was closed in August 2018 and all transactions were moved to DTCC SDR

¹⁹ DTCC SDR services <https://pddata.dtcc.com/gtr/cftc/dashboard.do>

²⁰ ESMA Clarifies Traded On a Trading Venue Under MIFID II www.esma.europa.eu/press-news/esma-news/esma-clarifies-traded-trading-venue-under-mifid-ii

²¹ A Practical Guide to Navigating Derivatives Trading on US/EU Recognized Trading Venues www.isda.org/a/CRmEE/ISDA-Publishes-Guide-to-Trading-on-US-EU-Trading-Venues-FINAL.pdf

The majority of block trades and large notional off-facility swaps (LNOFs) are reported to the DTCC SDR with a capped notional. Block trades and LNOFs are transactions above a designated notional threshold (block size). These transactions are reported with a delay at the capped amounts (cap size). As ISDA cleans up DTCC SDR data, all transactions that are reported with a '+' indicating a block trade are counted at the minimum notional. For example, a transaction reported with \$1,000,000+ notional would be counted as \$1,000,000 traded notional. As the result, total DTCC IRD traded notional is likely to be understated.



ISDA has published other recent research papers:

- ***ISDA-Clarus RFR Adoption Indicator: January 2023***

www.isda.org/a/v5ygE/ISDA-Clarus-RFR-Adoption-Indicator-January-2023.pdf

- ***SwapsInfo Full Year 2022 and the Fourth Quarter of 2022 Review***

www.isda.org/a/8VygE/SwapsInfo-Full-Year-2022-and-the-Fourth-Quarter-of-2022-Review-Full-Report.pdf

- ***Transition to RFRs Review: Full Year 2022 and the Fourth Quarter of 2022***

www.isda.org/a/hlxgE/Transition-to-RFRs-Review-Full-Year-2022-and-the-Fourth-Quarter-of-2022.pdf

ISDA has expanded its SwapsInfo website to include interest rate derivatives (IRD) trading activity reported in the EU and UK. This data is based on transactions publicly reported by 30 European APAs and TVs. European data is based on the location of reporting venues (EU versus UK), product taxonomy, currency, tenor, and execution venue. To access the expanded SwapsInfo website, [click here](#).

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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 1,000 member institutions from 79 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,

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