

Research Note

IRD Trading in the US, EU and UK: Growth, Structural Shifts and the Rise of OIS

This research note analyzes changes in interest rate derivatives (IRD) trading activity in the US, EU and UK from 2021 to 2024. It examines how central bank interest rate policies influenced IRD trading volumes and how the composition of IRD products has evolved due to the transition to alternative reference rates (ARRs).

The market's response to interest rate hikes in recent years was characterized by a notable increase in IRD trading volumes in the US, UK and EU. Even as monetary policy in major markets shifted toward easing in 2024, trading volumes continued to rise. This indicates that market participants were not only hedging against the risk of rising rates but also actively managing broader interest rate exposures to optimize risk, reposition portfolios and meet liquidity needs. The sustained growth in trading activity likely reflects a combination of elevated market uncertainty, adjustments to evolving rate expectations and ongoing demand for hedging and liquidity management.

While total IRD trading activity has surged, the composition of IRD products has undergone substantial structural changes, predominantly due to the industry-wide transition from LIBOR to ARR. As a result, the share of overnight index swaps (OIS) has expanded significantly, while trading in fixed-for-floating interest rate swaps (IRS) and forward rate agreements (FRAs) has dropped.

EXECUTIVE SUMMARY

IRD trading activity in the US, UK and EU evolved significantly between 2021 and 2024, as market participants adapted to a rapidly shifting macroeconomic landscape. Trading volumes surged as central banks raised interest rates to combat accelerating inflation. Notably, IRD trading activity remained elevated even as monetary policy began to ease, signifying sustained demand for interest rate risk management in an uncertain macroeconomic environment.

The increase in IRD traded notional across the US, EU and UK primarily comprised OIS transactions¹, reflecting a structural shift to risk-free rates (RFRs) following the transition from LIBOR. This transition changed the product composition of the market, as many trades previously categorized as fixed-for-floating IRS referencing LIBOR are now classified as OIS referencing RFRs. At the same time, participants actively used OIS to express views on interest rate expectations amid a volatile macroeconomic landscape.

ISDA analysis of IRD trading activity shows:

- IRD traded notional in the US rose by 59.3% to \$366.3 trillion in 2024 from \$230.2 trillion in 2021, representing a compound annual growth rate (CAGR) of 16.8%. In the EU, IRD traded notional increased by 66.4% to \$76.1 trillion in 2024 from \$45.7 trillion in 2022, corresponding to a CAGR of 29.0%. The UK also saw strong growth, with IRD traded notional rising by 41.7% to \$171.9 trillion in 2024 from \$121.3 trillion in 2022, reflecting a CAGR of 19.0%².
- The product composition of IRD trading shifted notably across regions, with OIS transactions making up a growing share of activity. In the US, this was driven by OIS referenced to SOFR and the effective federal funds rate (EFFR), with SOFR-linked OIS traded notional rising more than tenfold between 2021 and 2024. In the EU, €STR-linked OIS accounted for nearly 86% of total OIS traded notional in 2024. The UK market featured a broader mix of reference rates, with €STR surpassing SONIA as the most traded OIS benchmark in 2024, followed by significant volumes linked to SOFR and the EFFR.
- Tenor composition of IRD trading activity varied across jurisdictions but was heavily skewed toward short-dated instruments. In the US, trades with maturities of one year or less dropped to 68.2% of total traded notional in 2024 from 71.1% in 2022. The share of medium-term trades increased to 22.1%, while longer tenors were relatively unchanged. The EU experienced a more pronounced shift toward the short end, with one-year-and-under trades rising to 71.5% from 63.1%, alongside declines in both medium- and long-term activity. The UK had the largest concentration of short-dated trades, making up 74.9% of total traded notional, with medium-term trades holding steady at around 15% and longer tenors declining.

¹Overnight index swaps (OIS) generally refer to fixed-for-floating swaps in which the floating reference rate is an overnight rate. In this paper, the OIS category encompasses all overnight rates for a given currency – eg, both the effective federal funds rate (EFFR) and SOFR for US-dollar-denominated OIS

²EU and UK data is only available starting in the second half of 2021, so the scope of data differs from the US

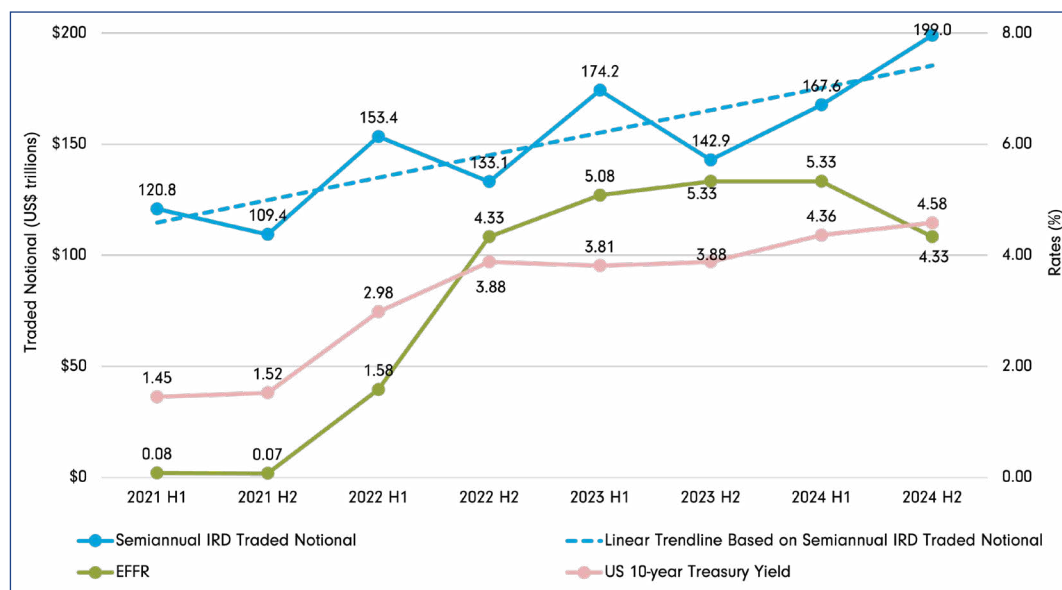
IRD TRADING VERSUS CENTRAL BANK POLICY RATES

Since early 2022, central banks in the US, EU and UK have undertaken aggressive interest rate increases to address rapidly rising inflation and stabilize economic conditions. The US Federal Reserve, the European Central Bank (ECB) and the Bank of England (BoE) all implemented multiple rate hikes over this period, which had substantial impacts on IRD trading activity.

The Federal Reserve initiated its rate-hiking cycle earlier than its European counterparts, raising the EFFR from near zero at the end of 2021 to a peak of 5.25%-5.50% by mid-2023. The EFFR was at 5.33% before the Fed began cutting interest rates in the second half of 2024, falling to 4.33% by the end of 2024. During this period, the yield on the 10-year US Treasury bond rose from 1.52% in December 2021 to 4.36% by the end of June 2024 and 4.58% by the end of 2024.

This significant shift in both short- and long-term rates created an environment of heightened uncertainty, prompting market participants to hedge against interest rate risk and unpredictable funding costs. Total IRD traded notional reported in the US rose by 59.3% to \$366.3 trillion in 2024 from \$230.2 trillion in 2021, representing a CAGR of 16.8%³ (see Chart 1).

Chart 1: US IRD trading volumes increased during the Fed's hiking cycle and remained elevated amid easing



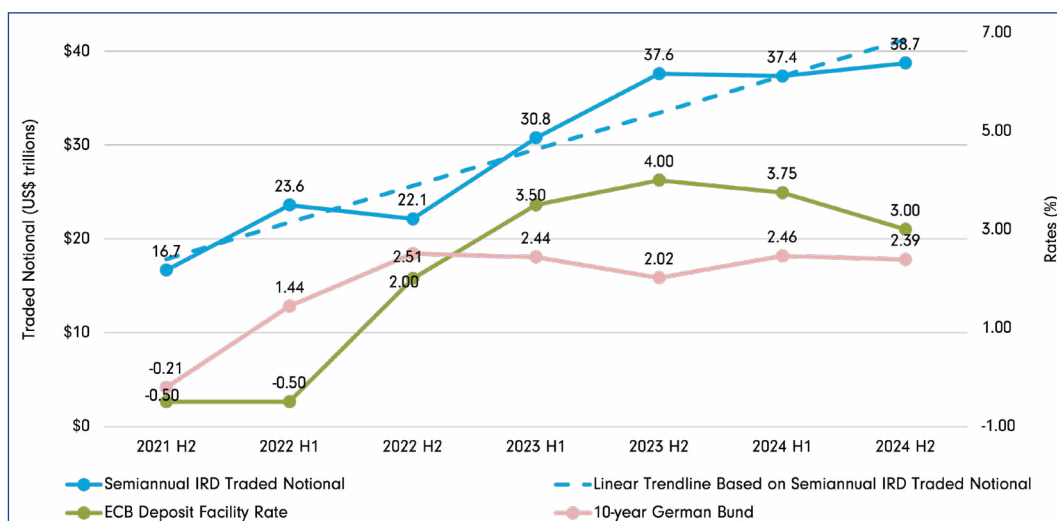
Source: DTCC SDR

The ECB began raising interest rates from negative territory in July 2022, primarily through adjustments to its deposit facility rate, which serves as the main tool for monetary policy, peaking at 4.0% in September 2023. In response to economic challenges, the ECB implemented a series of rate cuts throughout 2024, lowering the rate to 3.0% by the end of that year.

During this period, the yield on the 10-year German bund, a benchmark for eurozone long-term interest rates, experienced notable fluctuations. In December 2021, the yield was approximately -0.38%. As the ECB commenced its rate hikes, the 10-year bund yield began to rise, reaching approximately 2.9% in October 2023. As the eurozone economy started to show signs of weakening and inflation pressures eased, the ECB shifted its stance in 2024 and bund yields began to decline, falling to about 2.39% by the end of December 2024.

Total IRD traded notional reported in the EU increased by 66.4% to \$76.1 trillion in 2024 from \$45.7 trillion in 2022, growing at a CAGR of 29.0% (see Chart 2).

Chart 2: EU IRD trading volumes rose significantly during the ECB rate-hiking cycle and remained elevated despite easing in 2024⁴

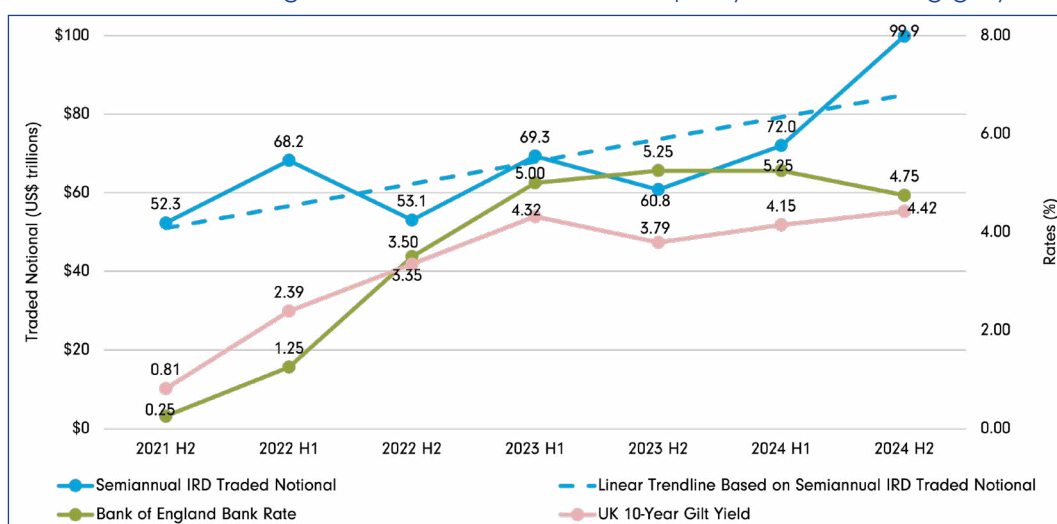


Source: EU APAs and TVs

In the UK, the BoE increased rates steadily, from 0.25% at the end of 2021 to a peak of 5.25% in August 2023, before lowering them in the second half of 2024 – to 4.75% by the end of the year – in response to easing inflation and weakening economic activity. The yield on the UK's 10-year gilt rose from below 1.0% to above 4.4% over the same period.

Total IRD traded notional reported in the UK rose by 41.7% to \$171.9 trillion in 2024 from \$121.3 trillion in 2022, reflecting a CAGR of 19.0% (see Chart 3).

Chart 3: UK IRD trading volumes increased amid BoE policy shifts and rising gilt yields



Source: UK APAs and TVs

⁴ EU and UK data is only available starting from the second half of 2021

IRD TRADING ACTIVITY REPORTED IN THE US

The composition of IRD trading activity in the US has shifted significantly in recent years, reflecting the transition to SOFR and the strong growth in OIS trading. As a result, volumes have moved from fixed-for-floating IRS referencing LIBOR to OIS referencing RFRs.

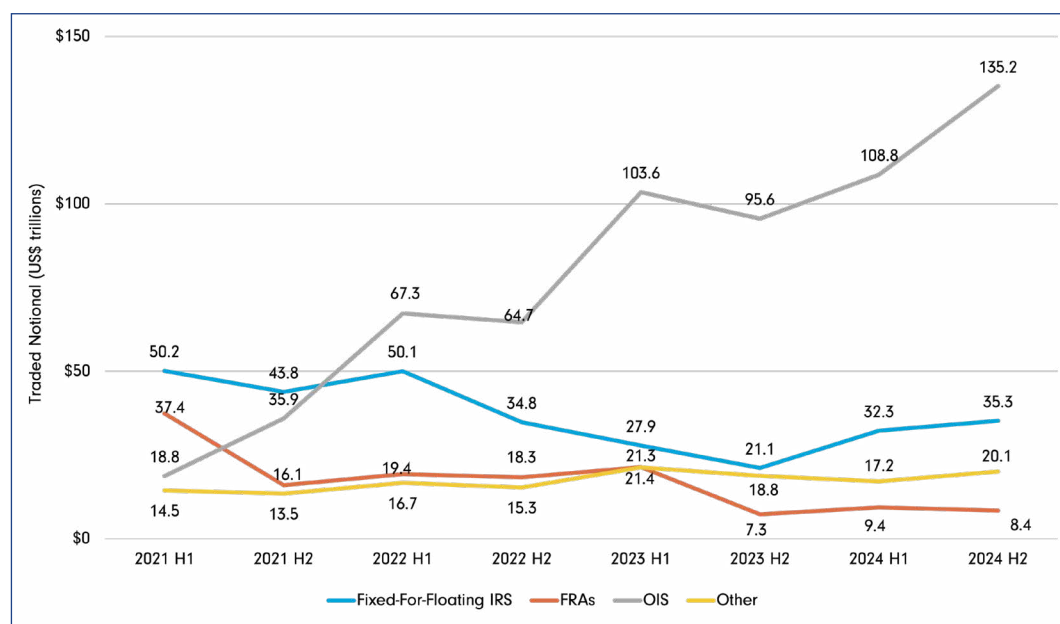
OIS traded notional reached \$244.0 trillion in 2024 from \$54.7 trillion in 2021 (see Chart 4), accounting for two-thirds (66.6%) of total IRD traded notional in 2024 compared to 25.3% in 2021.

In contrast, the share of fixed-for-floating IRS and FRAs fell to 18.4% and 4.9% in 2024 from 40.8% and 23.2% in 2021, respectively.

The decline in fixed-for-floating IRS activity began in the second half of 2022 and accelerated following the discontinuation of the final US dollar LIBOR settings on June 30, 2023⁵. During 2024, fixed-for-floating IRS increased, driven by growth in euro IRS and swaps denominated in currencies other than US dollars, euros and sterling⁶.

The transition from LIBOR to RFRs significantly reduced the need for FRAs, leading to a sharp decline in FRA trading from the first half of 2021. Market participants typically used FRAs to hedge fixing risk on three- or six-month LIBOR-based swaps, but RFR-linked swaps use daily compounded rates, largely eliminating that risk. FRA activity has since been concentrated in euro-denominated contracts, where market participants continue to hedge EURIBOR exposures. No FRA transactions were reported in other major currencies in the second half of 2024.

Chart 4: OIS traded notional increased to \$244.0 trillion in 2024 from \$54.7 trillion in 2021



Source: DTCC SDR

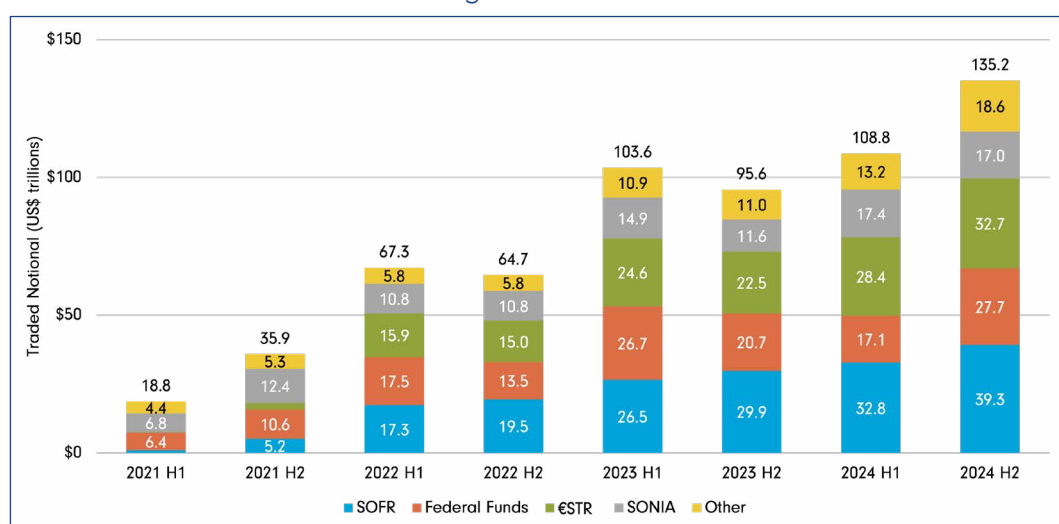
⁵ Publication of all euro, Japanese yen, sterling and Swiss franc LIBOR tenors and one-week and two-month US dollar LIBOR panel settings ceased at the end of 2021

⁶ The majority of reported US-dollar-denominated fixed-for-floating IRS traded notional in 2024 references EFR and SOFR and should therefore be reported as OIS transactions

OIS trading activity grew significantly across key reference rates between 2021 and 2024. SOFR-linked OIS traded notional rose from \$6.1 trillion in 2021 to \$72.1 trillion in 2024, while EFR-linked OIS increased from \$17.0 trillion in 2021 to a peak of \$47.5 trillion in 2023 before easing to \$44.7 trillion in 2024. Market participants typically use EFR-linked OIS to express views on the direction of monetary policy (see Chart 5).

SONIA-linked OIS transactions totaled \$34.4 trillion in 2024 from \$19.3 trillion in 2021, while transactions referencing €STR reached \$61.0 trillion from \$2.5 trillion over the same period. This growth is particularly significant given EURIBOR continues to exist.

Chart 5: SOFR-linked OIS notional grew more than 10 times from 2021 to 2024



Source: DTCC SDR

There is a significant difference in the trade size of EFR-referencing OIS transactions versus those linked to SOFR. The average trade size of EFR-referencing OIS totaled \$2.1 billion in the second half of 2024 compared to \$101.7 million for SOFR-linked OIS (see Table 1). This implies market participants have been using OIS linked to SOFR to replace US-dollar-denominated fixed-for-floating IRS, which traditionally had smaller trade sizes compared to EFR-referencing OIS.

Table 1: The average trade size of EFR-referencing OIS transactions was historically larger than the average trade size of SOFR transactions

	Average Daily Traded Notional (US\$ billions)		Average Daily Trade Count		Average Trade Size (US\$ millions)	
	OIS SOFR	OIS Federal Funds	OIS SOFR	OIS Federal Funds	OIS SOFR	OIS Federal Funds
2021 H1	7.4	51.6	55.4	123.1	137.1	435.4
2021 H2	39.6	82.0	433.1	92.2	91.9	872.6
2022 H1	136.6	139.5	1,718.1	97.8	102.4	1,339.3
2022 H2	149.9	104.6	1,910.1	73.4	77.1	1,393.4
2023 H1	207.2	212.9	2,445.5	115.8	84.5	1,766.3
2023 H2	231.6	164.6	2,549.4	86.1	96.2	1,839.6
2024 H1	260.4	136.8	2,749.0	77.1	94.1	1,653.0
2024 H2	302.1	214.7	2,972.8	101.6	101.7	2,087.8

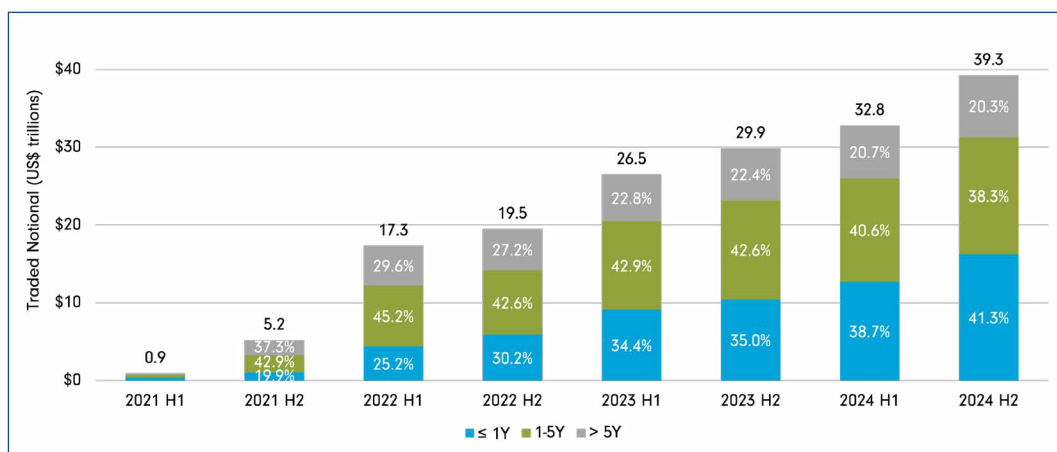
Source: DTCC SDR

While the average trade size of EFRF-referencing OIS may be greater than that of SOFR-linked OIS, this can be misleading as most trading referencing the EFRF is short in duration. In other words, the average DV01 of OIS linked to the EFRF would be close to and potentially smaller than the DV01 of SOFR-referencing transactions.

Block sizes used for the reporting of IRD transactions are also lower for longer tenors. As a result, transactions with short tenors above the block size will have a higher reported notional.

Of the \$39.3 trillion of SOFR-linked OIS traded notional in the second half of 2024, \$16.2 trillion (41.3%) had a tenor up to and including one year, \$15.1 trillion (38.3%) had a tenor over one year and up to five years and \$8.0 trillion (20.3%) had a tenor over five years⁷ (see Chart 6).

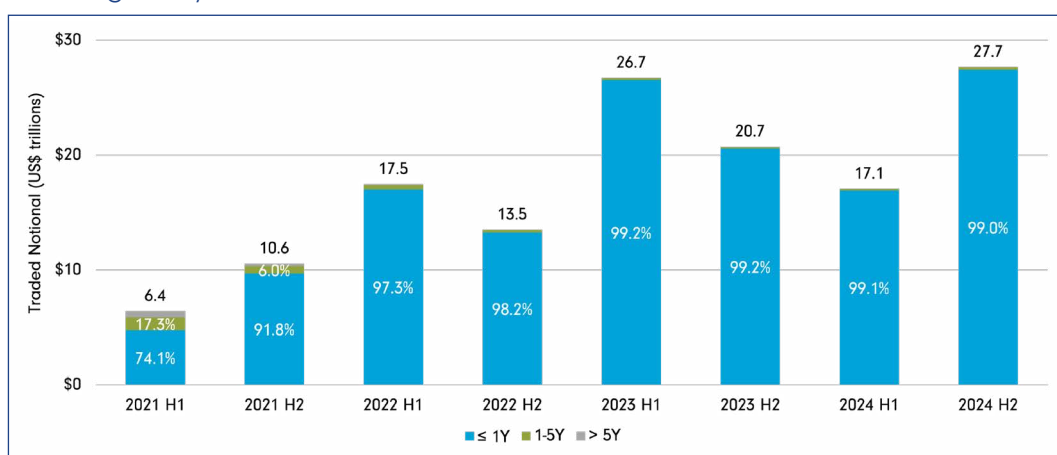
Chart 6: More than half of OIS transactions referencing SOFR had a tenor over one year in the second half of 2024



Source: DTCC SDR

In contrast, 99.0% of EFRF-linked OIS traded notional had a tenor up to and including one year in the second half of 2024 (See Chart 7).

Chart 7: Almost all OIS transactions referencing the EFRF had a tenor up to and including one year in the second half of 2024

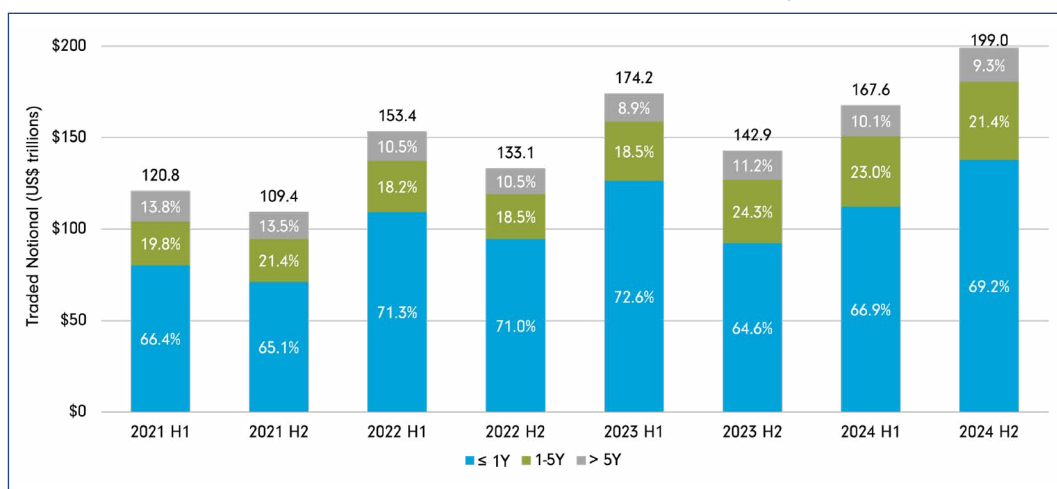


Source: DTCC SDR

⁷ Tenor is calculated as the difference between the effective date and the maturity date

Total IRD trading activity reported in the US remained heavily concentrated in short-dated instruments. In 2024, 68.2% of IRD traded notional had a tenor up to and including one year, 22.1% had a tenor between one and five years and 9.7% had a tenor over five years. While short-dated transactions continued to account for most of the activity, the share of trades with tenors between one and five years increased gradually, and the share of longer-dated transactions fluctuated between 9.0% and 14.0%.

Chart 8: Short-dated IRD transactions accounted for most US IRD trading, while the share of medium-term tenor trades increased in recent years



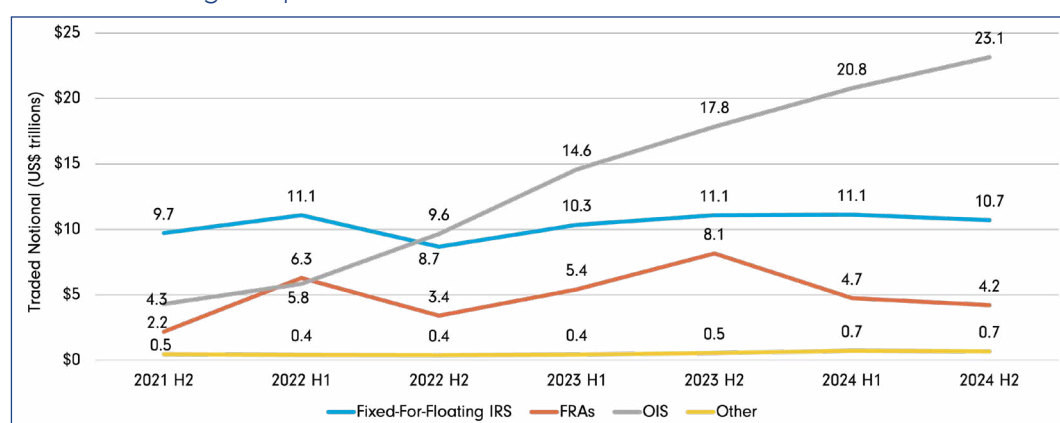
Source: DTCC SDR

IRD TRADING ACTIVITY REPORTED IN THE EU

The composition of IRD trading activity reported in the EU has also shifted in recent years, reflecting a growing share of OIS and a smaller portion of FRAs and fixed-for-floating IRS. OIS traded notional more than doubled to \$43.9 trillion in 2024 from \$15.5 trillion in 2022 (see Chart 9), comprising 57.7% of total IRD traded notional versus 33.8% in 2022.

In contrast, fixed-for-floating IRS traded notional edged up to \$21.8 trillion in 2024 from \$21.4 trillion in 2023, while FRA activity declined to \$8.9 trillion from \$13.6 trillion over the same period. The share of fixed-for-floating IRS and FRAs fell to 28.7% and 11.7% in 2024 from 43.2% and 21.2% in 2022, respectively. These shifts are particularly notable given both instruments commonly reference EURIBOR, which remains in use.

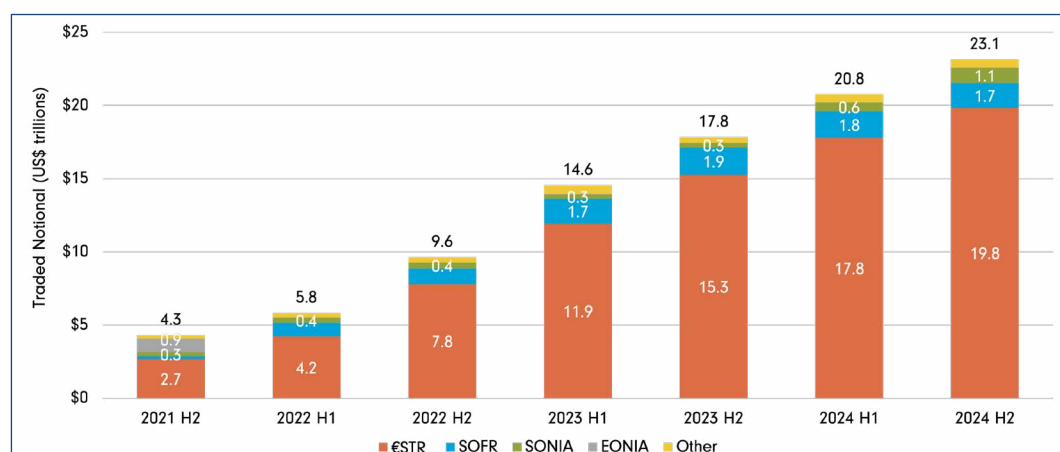
Chart 9: EU IRD trading shifted to OIS products, reducing the share of FRAs and fixed-for-floating swaps



Source: EU APAs and TVs

€STR-linked transactions comprised the majority of OIS trading activity reported in the EU. Traded notional referencing €STR rose to \$37.6 trillion in 2024 from \$12.0 trillion in 2022, representing 85.7% of total OIS traded notional (see Chart 10). SOFR-linked transactions accounted for 7.9% of OIS traded notional, while SONIA-referencing trades made up 3.8%.

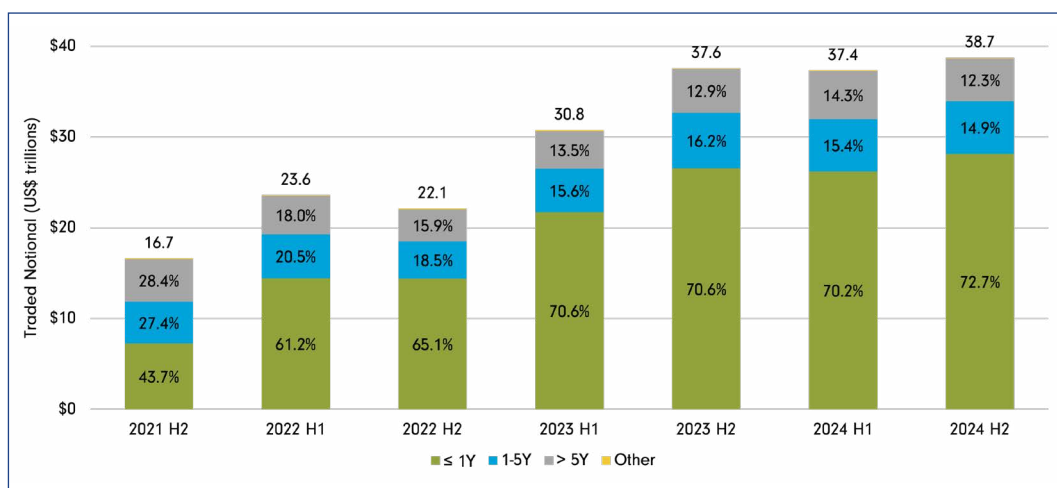
Chart 10: €STR-linked transactions accounted for the majority of OIS trading in the EU in 2024



Source: EU APAs and TVs

In the EU, the share of short-dated IRD transactions (with a tenor up to and including one year) increased to 71.5% in 2024 from 63.1% in 2022 (see Chart 11). The proportion of trades with a tenor between one and five years declined to 15.1% from 19.5% and longer-dated transactions (over five years) fell to 13.3% of total traded notional from 17.0% over the same period.

Chart 11: Short-dated IRD transactions made up an increasing share of trading activity reported in the EU from 2022 to 2024⁸



Source: EU APAs and TVs

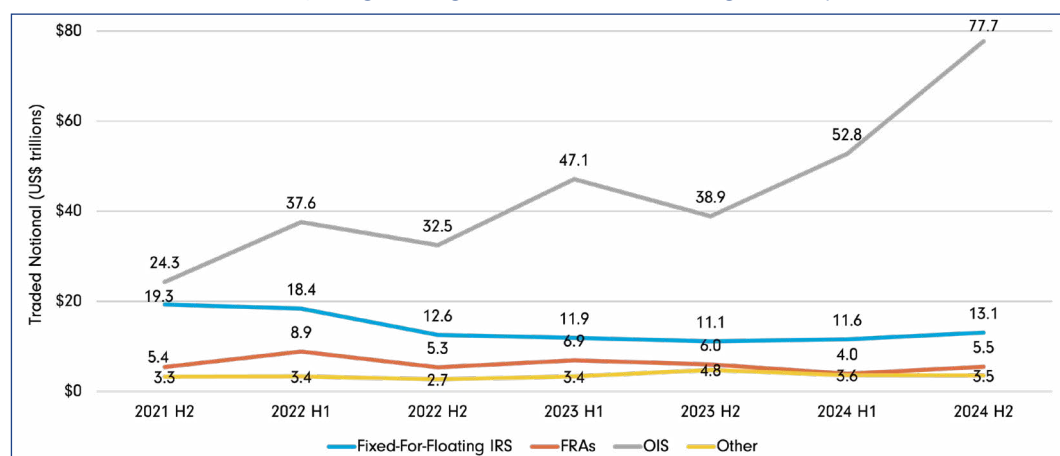
⁸ The 'other' category includes transactions that don't have tenor data specified in the database

IRD TRADING ACTIVITY REPORTED IN THE UK

Growth in IRD trading activity in the UK was similarly characterized by a sharp increase in OIS transactions. OIS traded notional almost doubled to \$130.5 trillion in 2024 from \$70.1 trillion in 2022 (see Chart 12), accounting for 75.9% of total IRD traded notional versus 57.8% in 2022.

Fixed-for-floating IRS declined by 25.7% from \$30.9 trillion in 2022 to \$23.0 trillion in 2023, before increasing slightly to \$24.7 trillion in 2024. FRA traded notional gradually fell to \$9.5 trillion in 2024. The share of fixed-for-floating IRS traded notional dropped to 14.4% in 2024 from 25.5% in 2022, while the share of FRAs fell to 5.5% from 11.7% over the same period.

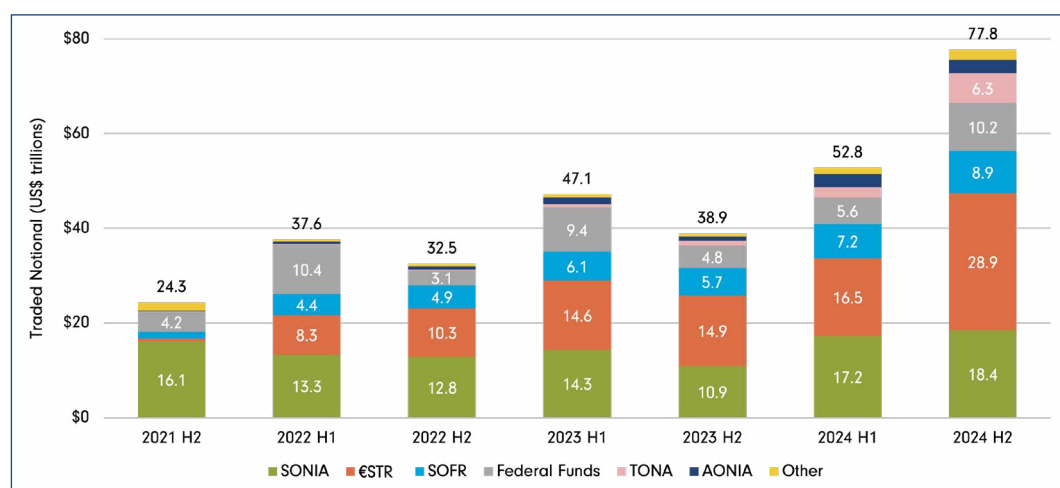
Chart 12: OIS made up a growing share of IRD trading activity in the UK



Source: UK APAs and TVs

OIS transactions reported in the UK had a wider range of underlying reference rates than those reported in the EU, with €STR-linked transactions surpassing SONIA as the most traded reference rate (see Chart 13). In 2024, €STR-linked transactions represented 34.8% of OIS traded notional, followed by SONIA-based OIS at 27.3%. Transactions linked to SOFR and the EFFR accounted for 12.4% and 12.1% of OIS traded notional, respectively.

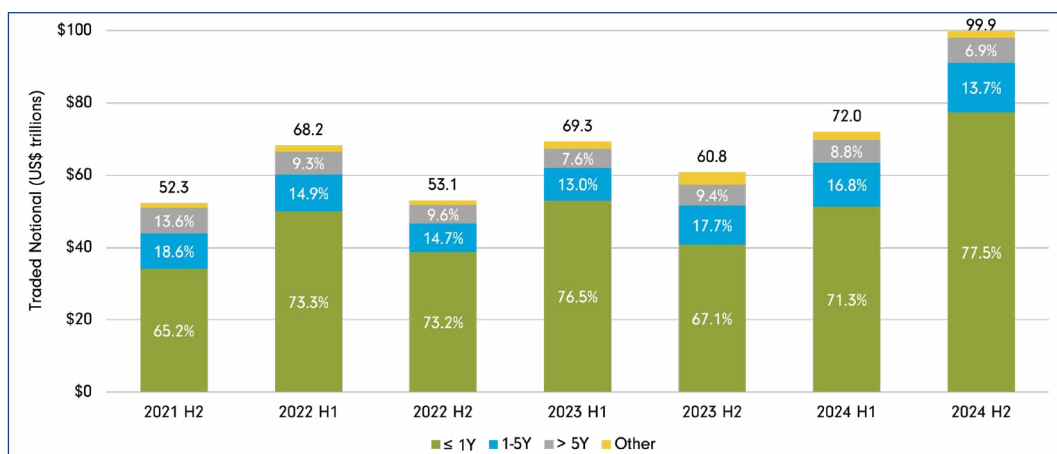
Chart 13: More than 60% of OIS transactions reported in the UK were linked to €STR and SONIA in 2024



Source: UK APAs and TVs

IRD trading activity in the UK was even more skewed towards short-dated instruments compared to the US and EU. In 2024, trades with a tenor of up to and including one year accounted for 74.9% of total traded notional, up from 73.3% in 2022 (see Chart 14). The share of transactions with a tenor between one and five years remained stable at around 15.0%, while the proportion of trades with a tenor over five years declined to 7.7% in 2024 from 9.4% in 2022.

Chart 14: Short-dated transactions accounted for a growing share of IRD trading activity reported in the UK

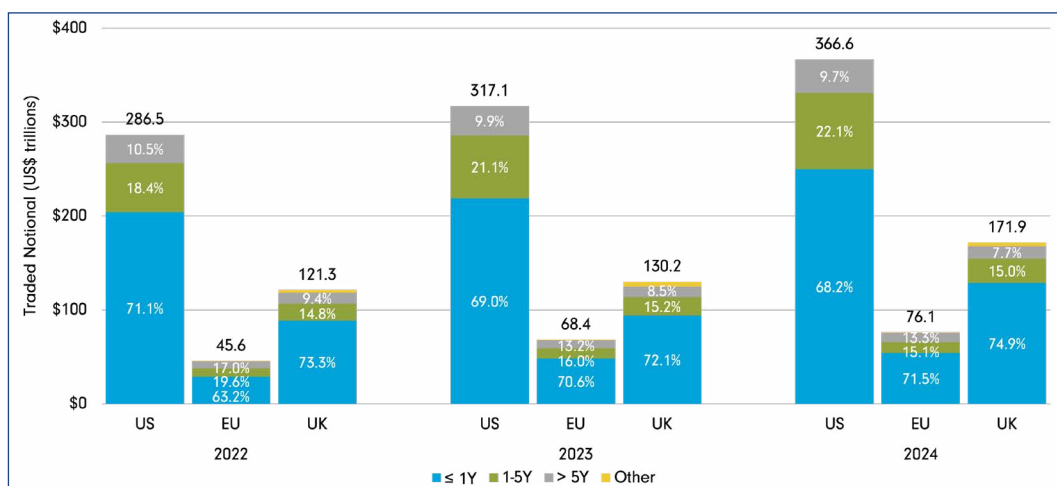


Source: UK APAs and TVs

A comparison of tenor composition in the US, EU and UK in 2024 reveals differences in trading patterns. While short-dated instruments made up the majority of IRD activity in all three regions, the concentration was highest in the UK at 74.9% of total notional. The EU followed closely with 71.5%, with the US at 68.2% (see Chart 15).

The US had the most balanced tenor distribution of the three regions. Transactions with a tenor over one year and up to five years accounted for 22.1% of total notional compared with 15.1% in the EU and 15.0% in the UK. In contrast, the EU had the highest share of long-dated transactions at 13.3% versus 9.7% in the US and 7.7% in the UK.

Chart 15: Short-dated instruments dominated IRD trading in all regions, with the UK having the highest concentration of tenors of one year or less



Source: DTCC SDR and EU and UK APAs and TVs

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