

# TRANSITION TO RFRs REVIEW: First Half of 2021 and the Second Quarter of 2021

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The Transition to Risk-free Rates (RFRs) Review analyzes the trading volumes of over-the-counter (OTC) and exchange-traded interest rate derivatives (IRD) that reference selected alternative RFRs, including the Secured Overnight Financing Rate (SOFR), the Sterling Overnight Index Average (SONIA), the Swiss Average Rate Overnight (SARON), the Tokyo Overnight Average Rate (TONA), the Euro Short-Term Rate (€STR) and the Australian Overnight Index Average (AONIA).

Global data is collected from all major central counterparties (CCPs) that clear OTC and exchange-traded derivatives (ETD) in six currencies, including the Australian Securities Exchange, CME Group, Eurex, Intercontinental Exchange (ICE), Japan Securities Clearing Corporation, LCH and the Tokyo Financial Exchange. Only cleared transactions are captured in this data.

US data is collected from the Depository Trust & Clearing Corporation (DTCC) swap data repository (SDR). It therefore only covers trades that are required to be disclosed under US regulations and includes cleared and non-cleared OTC IRD transactions.

## KEY HIGHLIGHTS FOR THE FIRST HALF OF 2021 AND THE SECOND QUARTER OF 2021

### Global Trading Activity<sup>1</sup>

In the first half of 2021:

The average monthly ISDA-Clarus RFR Adoption Indicator increased to 10.2% in the first half of 2021 compared to 6.5% in the first half of 2020<sup>2</sup>. The indicator tracks how much global trading activity (as measured by DV01) is conducted in cleared OTC and exchange-traded IRD that reference the identified RFRs in six major currencies<sup>3</sup>.

RFR-linked IRD traded notional accounted for 10.9% of total IRD traded notional in the first half of 2021 compared to 7.4% in the first half of 2020.

In the second quarter of 2021:

The average monthly ISDA-Clarus RFR Adoption Indicator reached 11.0% compared to 9.7% in the prior quarter. RFR-linked IRD traded notional accounted for 11.4% of total IRD traded notional versus 10.5% in the first quarter of 2021.

### Trading Activity in the US<sup>4</sup>

In the first half of 2021:

In the US, traded notional of OTC IRD referencing alternative RFRs decreased by 15.9% to \$9.2 trillion in the first half of 2021 compared to \$10.9 trillion in the first half of 2020<sup>5</sup>. The decrease was primarily driven by lower trading activity in SONIA-linked derivatives<sup>6</sup>. RFR transactions accounted for 7.6% of total IRD traded notional in the first half of 2021, flat compared with the first half of 2020.

<sup>1</sup> The global data is collected from all major central counterparties (CCPs) that clear over-the-counter (OTC) and exchange-traded derivatives (ETD) in the six currencies, including the Australian Securities Exchange, CME Group, Eurex, Intercontinental Exchange (ICE), Japan Securities Clearing Corporation, LCH and the Tokyo Financial Exchange. Only cleared transactions are captured in this data

<sup>2</sup> The RFR Adoption Indicator was 11.7% in June 2021. ISDA-Clarus RFR Adoption Indicator, June 2021: [www.isda.org/a/PBEgE/ISDA-Clarus-RFR-Adoption-Indicator-June-2021.pdf](https://www.isda.org/a/PBEgE/ISDA-Clarus-RFR-Adoption-Indicator-June-2021.pdf)

<sup>3</sup> ISDA-Clarus RFR Adoption Indicator White Paper: [www.isda.org/a/SImTE/ISDA-Clarus-RFR-Adoption-Indicator-Whitepaper.pdf](https://www.isda.org/a/SImTE/ISDA-Clarus-RFR-Adoption-Indicator-Whitepaper.pdf)

<sup>4</sup> The US data is collected from the Depository Trust & Clearing Corporation (DTCC) swap data repository (SDR). It therefore only covers trades that are required to be disclosed under US regulations and includes cleared and non-cleared OTC IRD transactions

<sup>5</sup> This data covers only transactions that are required to be disclosed under US regulations

<sup>6</sup> The number of SONIA-linked transactions increased over the same period. The divergence between the decrease in traded notional and the increase in trade count was due to a smaller transaction size

- IRD traded notional referencing SOFR increased to \$1.7 trillion in the first half of 2021 from \$488.6 billion in the first half of 2020. The proportion of IRD traded notional linked to SOFR remained small, accounting for only 1.4% of total IRD traded notional and 18.4% of IRD traded notional referencing RFRs.
- IRD traded notional referencing SONIA decreased by 29.7% to \$7.2 trillion in the first half of 2021 compared to \$10.2 trillion in the first half of 2020. SONIA transactions accounted for 5.9% of total IRD traded notional and represented 78.3% of IRD traded notional referencing RFRs in the first half of 2021<sup>7</sup>.
- Traded notional of IRD referencing LIBOR denominated in US dollars, sterling, Swiss franc, yen and euro, as well as EURIBOR and TIBOR, decreased by 15.9% to \$86.2 trillion compared to \$88.8 trillion in the first half of 2020. These interbank offered rates (IBORs) represented 71.2% of total IRD traded notional in the first half of 2021 compared to 61.7% in the first half of 2020.

#### In the second quarter of 2021:

Traded notional of OTC IRD in the US referencing alternative RFRs decreased by 29.9% to \$3.8 trillion in the second quarter of 2021 compared to \$5.4 trillion in the first quarter of 2021. The decrease was primarily driven by lower trading activity in SONIA-linked derivatives. RFR transactions accounted for 7.4% of total IRD traded notional in the second quarter of 2021, down from 7.7% in the prior quarter.

- IRD traded notional referencing SOFR increased by 22.3% to \$931.5 billion in the second quarter of 2021 from \$761.5 billion in the prior quarter. The proportion of IRD traded notional linked to SOFR remained small, accounting for only 1.8% of total IRD traded notional and 24.6% of IRD traded notional referencing RFRs.
- IRD traded notional referencing SONIA decreased by 39.8% to \$2.7 trillion in the second quarter of 2021 compared to \$4.5 trillion in the first quarter of 2021. SONIA transactions accounted for 5.3% of total IRD traded notional and represented 71.4% of IRD traded notional referencing RFRs.

<sup>7</sup> This is expected as SONIA has been and is currently used as the reference rate for sterling overnight index swaps (OIS), while the effective federal funds rate (EFFR) is still widely used as the reference rate for US dollar OIS

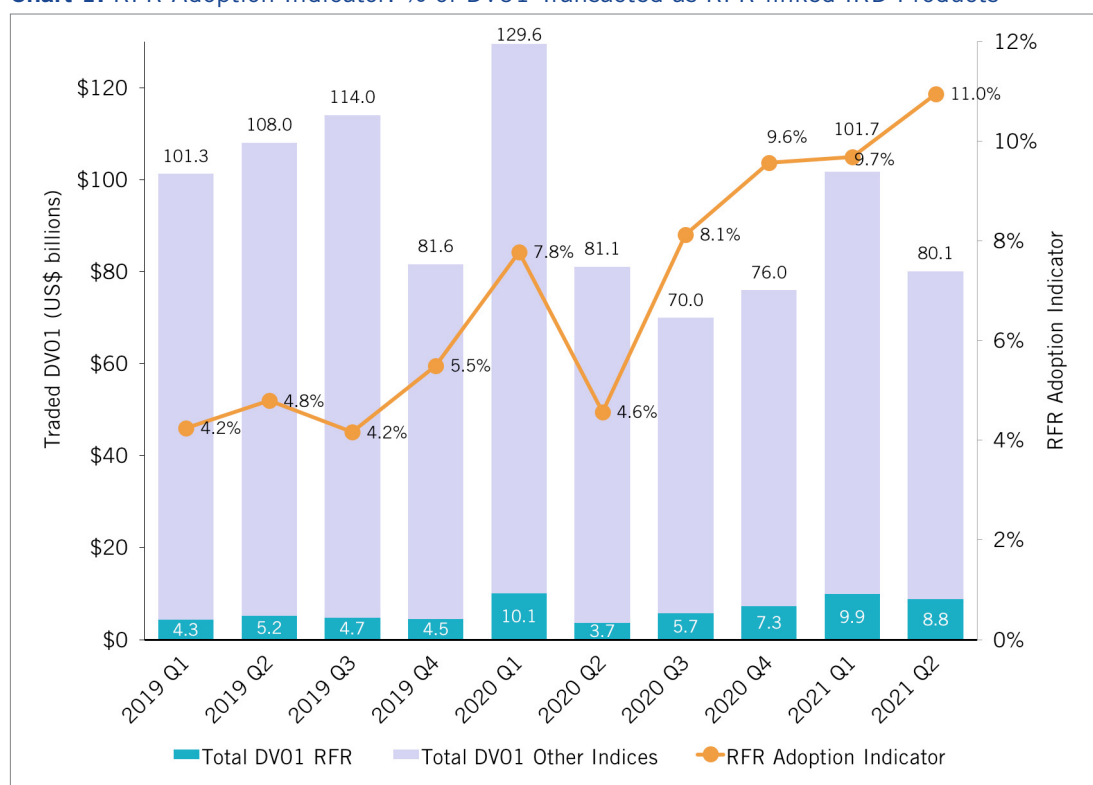
- Traded notional of IRD referencing LIBOR denominated in US dollars, sterling, Swiss franc, yen and euro, as well as EURIBOR and TIBOR, decreased by 29.5% to \$35.6 trillion in the second quarter of 2021 compared to \$50.6 trillion in the first quarter of 2021. These IBORs represented 70.1% of total IRD traded notional in the second quarter of 2021 compared to 72.0% in the first quarter of 2021.
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## GLOBAL RFR-LINKED OTC AND EXCHANGE-TRADED IRD

The average monthly ISDA-Clarus RFR Adoption Indicator increased to 10.2% in the first half of 2021 compared to 6.5% in the first half of 2020<sup>8</sup>. RFR-linked IRD DV01 totaled \$18.6 billion in the first half of 2021 compared to \$13.8 billion in the first half of 2020. Total IRD DV01 decreased to \$181.8 billion from \$210.7 billion over the same period.

In the second quarter of 2021, the average monthly ISDA-Clarus RFR Adoption Indicator reached 11.0% versus 9.7% in the first quarter. RFR-linked IRD DV01 decreased to \$8.8 billion in the second quarter of 2021 compared to \$9.9 billion in the prior quarter. Total IRD DV01 decreased to \$80.1 billion from \$101.8 billion over the same period<sup>9</sup> (see Chart 1).

**Chart 1: RFR Adoption Indicator: % of DV01 Transacted as RFR-linked IRD Products**



Source: ISDA-Clarus RFR Adoption Indicator

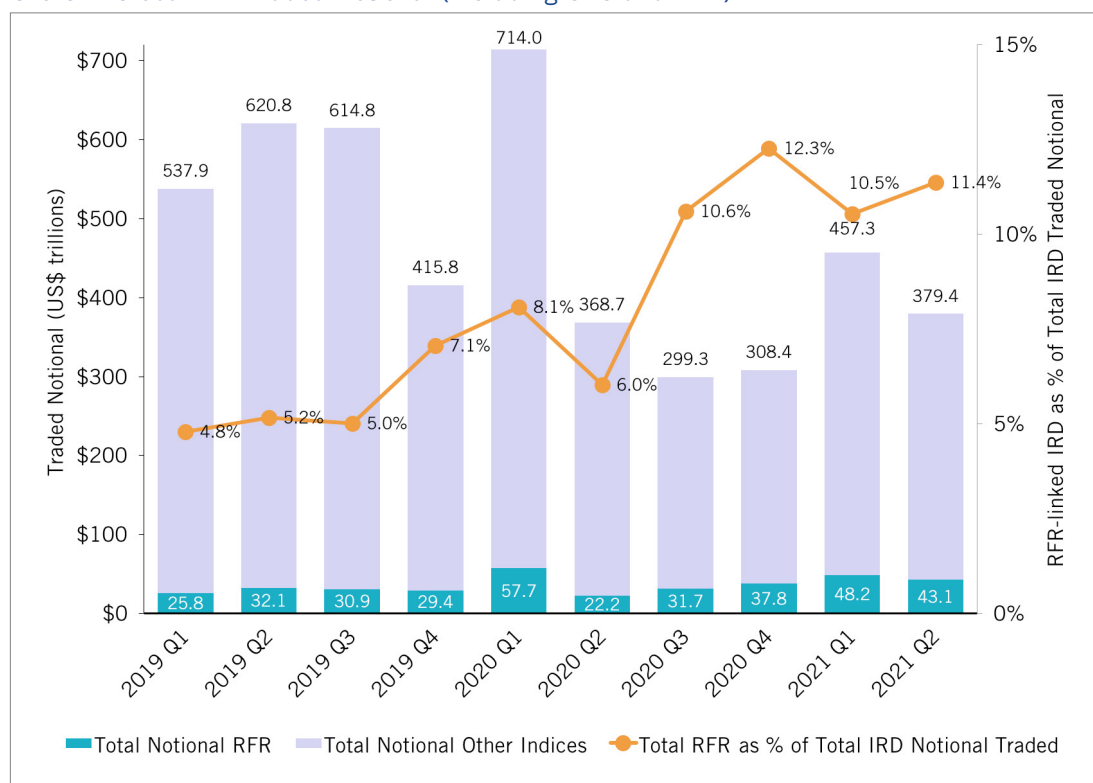
RFR-linked IRD traded notional increased to 10.9% of total IRD traded notional in the first half of 2021 versus 7.4% in the first half of 2020. RFR-linked IRD traded notional, including OTC and ETD, totaled \$91.4 trillion in the first half of 2021 compared to \$79.9 trillion in the first half of 2020. Total IRD traded notional declined to \$836.8 trillion from \$1,082.7 trillion over the same period.

<sup>8</sup> ISDA-Clarus RFR Adoption Indicator tracks how much global trading activity (as measured by DV01) is conducted in cleared OTC and exchange-traded derivatives that reference the identified RFRs in six major currencies, including the Australian dollar, euro, sterling, Swiss franc, US dollar and yen

<sup>9</sup> To access interactive charts and download monthly data, go to <https://rfr.clarusft.com>

In the second quarter of 2021, RFR-linked IRD traded notional accounted for 11.4% of total IRD traded notional compared to 10.5% in the first quarter. RFR-linked IRD traded notional decreased to \$43.1 trillion in the second quarter of 2021 from \$48.2 trillion in the prior quarter. Total IRD traded notional increased to \$379.4 trillion from \$457.3 trillion over the same period (see Chart 2).

**Chart 2:** Global IRD Traded Notional (including OTC and ETD)



Source: ISDA-Clarus RFR Adoption Indicator

## RFR-LINKED OTC IRD IN THE US

In the US, OTC IRD traded notional referencing alternative RFRs decreased by 15.9% to \$9.2 trillion in the first half of 2021 compared to \$10.9 trillion in the first half of 2020<sup>10</sup>. The decrease was primarily driven by lower trading activity in SONIA-linked derivatives.

RFR transactions accounted for 7.6% of total OTC IRD traded notional in the first half of 2021, flat compared with the first half of 2020. The number of trades referencing RFRs increased by 194.4% to 48,275 in the first half of 2021. RFR-linked trades accounted for 4.9% of total OTC IRD trade count in first half of 2021 compared to 1.8% in the first half of 2020.

### In the first half of 2021:

- SOFR-linked OTC IRD traded notional increased by 246.5% compared with the first half of 2020 and totaled \$1.7 trillion, including \$721.8 billion of basis swaps. Trade count grew by 419.8% to 11,810 over the same period, including 4,019 basis swaps<sup>11</sup>.
- SONIA-linked IRD traded notional decreased by 29.7% to \$7.2 trillion, including \$126.0 billion of basis swaps. Trade count rose by 157.6% to 35,024, including 710 basis swaps.
- SARON-linked IRD traded notional decreased to \$18.7 billion, including \$0.2 billion of basis swaps. Trade count grew to 238, including five basis swaps.
- TONA-linked IRD traded notional decreased to \$144.8 billion, including \$2.3 billion of basis swaps. Trade count increased to 474, including 36 basis swaps.
- €STR-linked IRD traded notional increased to \$136.3 billion, including \$2.3 billion of basis swaps. Trade count grew to 729, including 27 basis swaps<sup>12</sup>.

### In the second quarter of 2021:

- SOFR-linked OTC IRD traded notional increased by 22.3% versus the first quarter of 2021 and totaled \$931.5 billion, including \$377.5 billion of basis swaps. Trade count increased by 16.3% over the same period and totaled 6,350, including 1,839 basis swaps.

<sup>10</sup> This data covers only transactions that are required to be disclosed under US regulations

<sup>11</sup> The RFR basis swap data covers all basis swaps with the relevant alternative RFR as one of the underlying assets. This includes alternative RFR/interbank offered rate (IBOR) basis swaps. Basis swaps with the relevant alternative RFR as one of the underlying assets are tracked separately because market participants have specifically identified a robust basis swaps market as key to understanding the economic differences between the alternative RFRs and other rates, including IBORs. A robust and liquid basis swaps market for the alternative RFRs will also support hedging during the transition from IBORs to alternative RFRs

<sup>12</sup> €STR swaps started trading in the fourth quarter of 2019

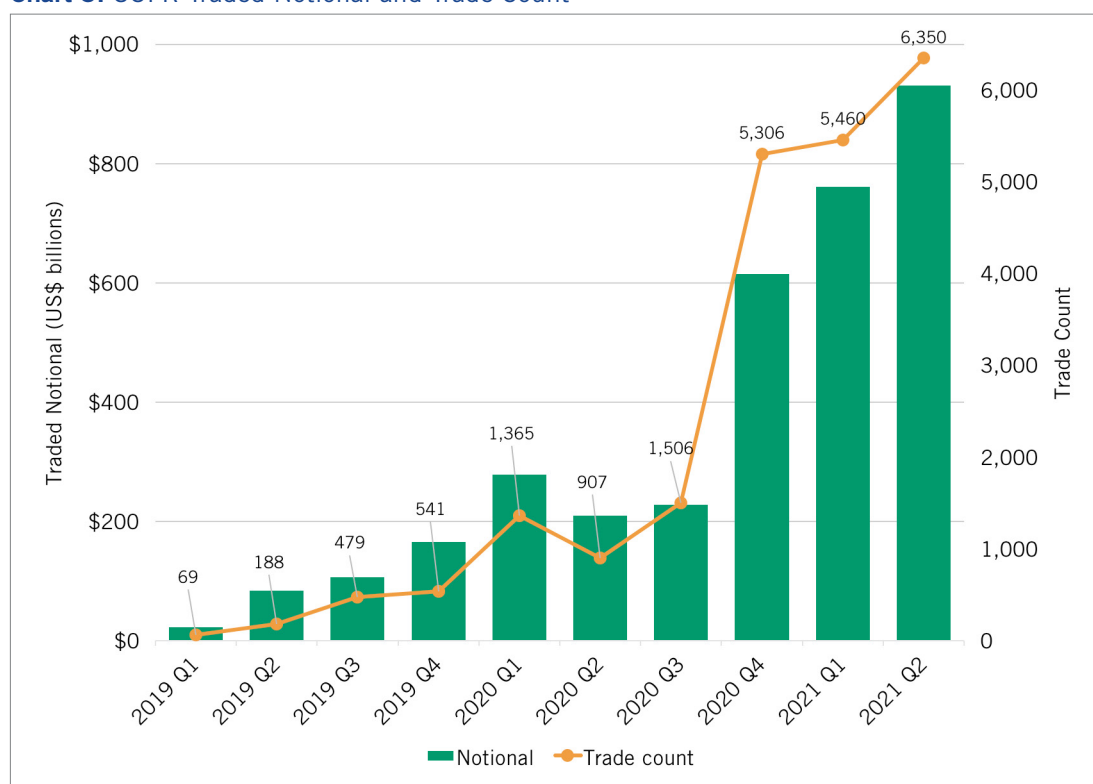
- SONIA-linked IRD traded notional decreased by 39.8% to \$2.7 trillion, including \$63.2 billion of basis swaps. Trade count increased by 19.5% to 19,068, including 349 basis swaps.
- SARON-linked IRD traded notional increased to \$11.6 billion, including \$0.2 billion of basis swaps. Trade count grew to 186, including five basis swaps.
- TONA-linked IRD traded notional decreased to \$46.0 billion, including \$1.1 billion of basis swaps. Trade count increased to 253, including 29 basis swaps.
- €STR-linked IRD traded notional increased to \$92.6 billion, including \$1.9 billion of basis swaps. Trade count grew to 407, including 20 basis swaps.



## SOFR

Trading activity in SOFR-linked OTC IRD continued to grow in the second quarter of 2021. Traded notional of IRD referencing SOFR increased by 22.3% to \$931.5 billion from \$761.5 billion in the first quarter of 2021. The number of SOFR-linked IRD transactions jumped by 16.3% to 6,350 from 5,460 over the same period (see Chart 3).

**Chart 3: SOFR Traded Notional and Trade Count**

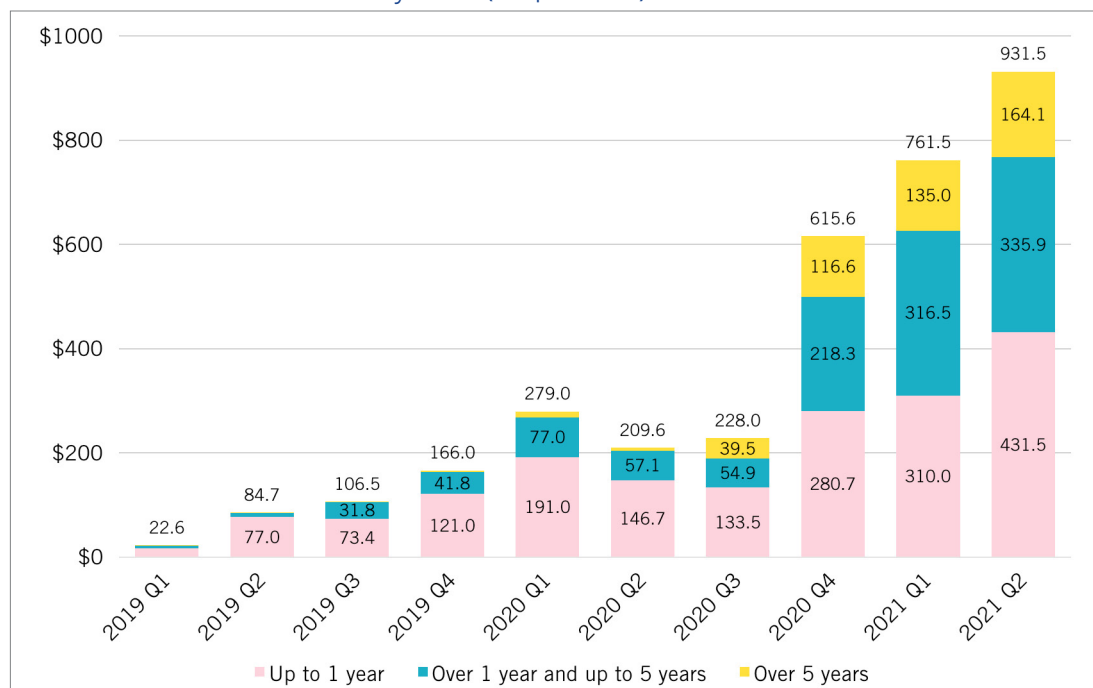


Source: DTCC SDR

Out of \$931.5 billion of SOFR-linked IRD traded notional in the second quarter of 2021, \$431.5 billion (46.3%) had a tenor up to one year, \$335.9 billion (36.1%) was between one and five years and \$164.1 billion (17.6%) had a tenor over five years<sup>13</sup> (see Chart 4).

<sup>13</sup> Tenor is calculated as the difference between the effective date and the maturity date

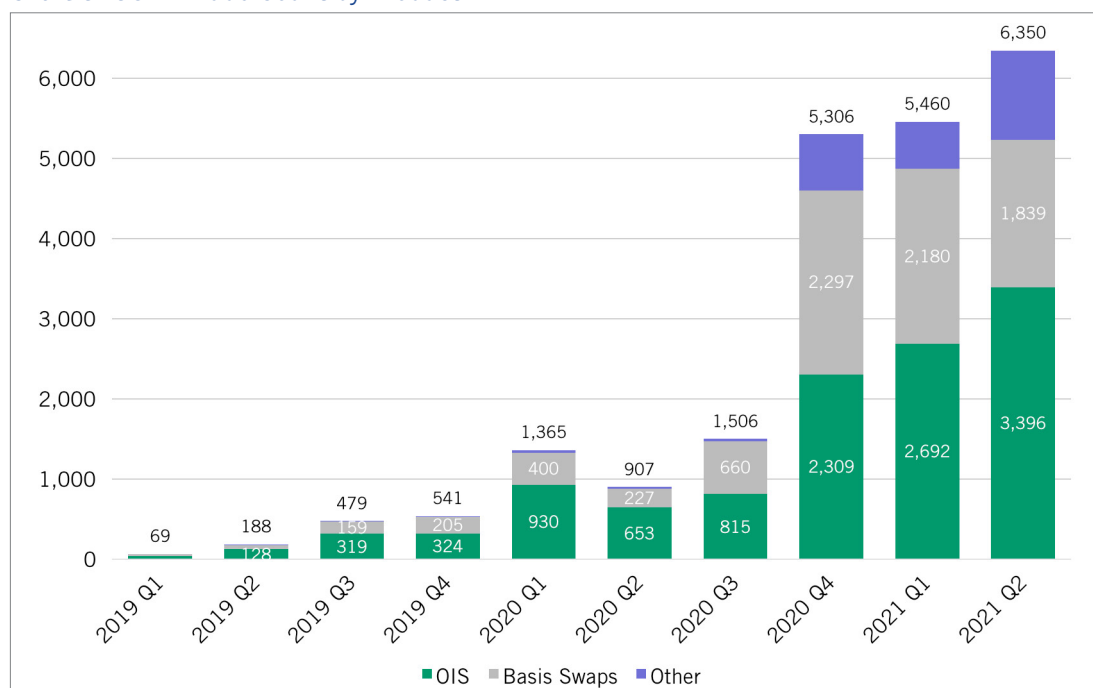
**Chart 4: SOFR Traded Notional by Tenor (US\$ billions)**



Source: DTCC SDR

Overnight index swaps (OIS) accounted for the majority of SOFR-linked contracts in the second quarter of 2021. Of the 6,350 SOFR-based IRD contracts traded, 3,396 were OIS, 1,839 were basis swaps and 1,115 were other transactions, including fixed-for-floating interest rate swaps and cap/floor products (see Chart 5).

**Chart 5: SOFR Trade Count by Product**

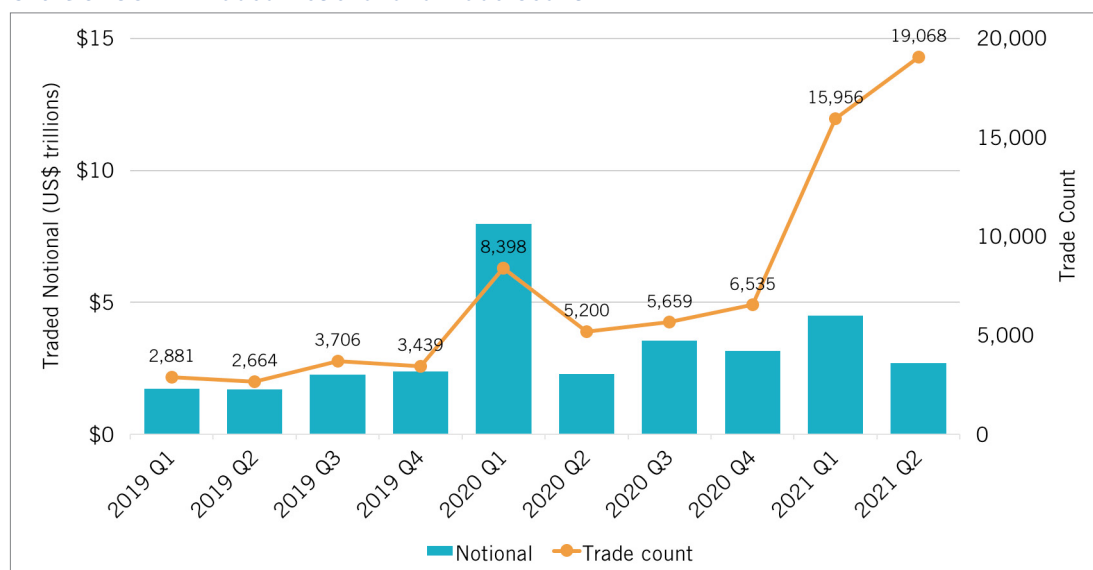


Source: DTCC SDR

## SONIA

Traded notional of OTC IRD referencing SONIA decreased by 39.8% to \$2.7 trillion in the second quarter of 2021 from \$4.5 trillion in the prior quarter. Trade count increased from 15,956 to 19,068, over the same period<sup>14</sup> (see Chart 6).

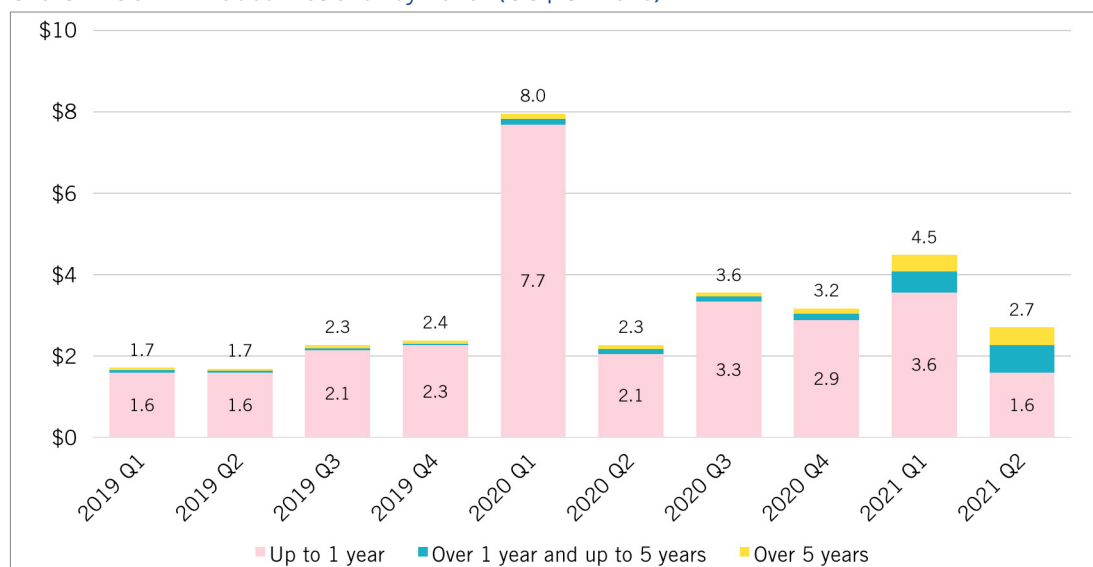
**Chart 6: SONIA Traded Notional and Trade Count**



Source: DTCC SDR

Most transactions referencing SONIA had a tenor up to one year. Of the \$2.7 trillion of SONIA-linked IRD traded notional in the second quarter of 2021, \$1.6 trillion (59.2%) had a tenor up to one year, \$663.9 billion (24.6%) was between one and five years and \$439.2 billion (16.2%) had a tenor over five years (see Chart 7).

**Chart 7: SONIA Traded Notional by Tenor (US\$ trillions)**

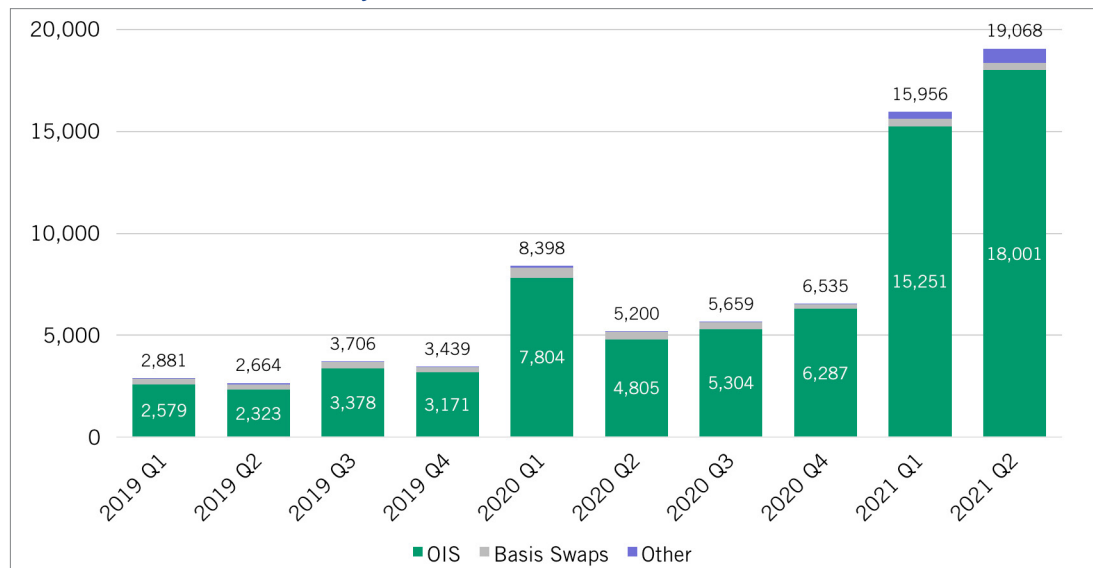


Source: DTCC SDR

<sup>14</sup> The divergence between the decrease in traded notional and the increase in trade count was due to a smaller transaction size

OIS accounted for the majority of SONIA-linked OTC IRD trade count. Of the 19,086 SONIA-based IRD contracts traded in the second quarter of 2021, 18,001 were OIS transactions, 349 were basis swaps and 718 were other products (see Chart 8).

**Chart 8: SONIA Trade Count by Product**



Source: DTCC SDR

Table 1: US IRD Traded Notional and Trade Count

	Q2 2021		YTD Q2 2021	
	Traded Notional (US\$ billions)	Trade Count	Traded Notional (US\$ billions)	Trade Count
USD LIBOR	24,065.1	171,182	56,055.5	376,032
SOFR	554.0	4,511	971.2	7,791
Basis Swaps: SOFR	377.5	1,839	721.8	4,019
GBP LIBOR	1,872.3	15,764	7,289.4	53,172
SONIA	2,640.3	18,719	7,066.3	34,314
Basis Swaps: SONIA	63.2	349	126.0	710
CHF LIBOR	142.9	2,909	381.8	6,560
SARON	11.4	181	18.5	233
Basis Swaps: SARON	0.2	5	0.2	5
JPY LIBOR	549.1	9,485	1,763.5	22,566
TIBOR/Euroyen TIBOR	10.2	69	11.5	88
TONA	44.8	224	142.5	438
Basis Swaps: TONA	1.1	29	2.3	36
EUR LIBOR	0.2	4	1.1	14
EURIBOR	8,985.2	79,299	20,672.3	174,936
€STR	90.7	387	134.0	702
Basis Swaps: €STR	1.9	20	2.3	27
Other*	11,398.7	137,362	25,625.2	299,606
<b>Total**</b>	<b>50,809.0</b>	<b>442,338</b>	<b>120,985.2</b>	<b>981,249</b>

\*Other includes IRD with other reference rates, IBOR/non-RFR basis swaps and IBOR/IBOR basis swaps that reference different IBORs  
IBOR/IBOR basis swaps that reference the same IBOR are included in a corresponding IBOR category  
RFR/RFR basis swaps that reference different RFRs are included in both RFR basis swaps categories and, therefore, are double-counted  
\*\*This data includes only the transactions required to be disclosed under U.S. regulations and does not include any exchange-traded derivatives (futures)

Source: DTCC SDR

Table 2: US IRD Traded Notional and Trade Count Q2 2021 vs. Q1 2021

	Q2 2021		Q1 2021		Q2 2021 vs. Q1 2021	
	Traded Notional (US\$ billions)	Trade Count	Traded Notional (US\$ billions)	Trade Count	Traded Notional	Trade Count
USD LIBOR	24,065.1	171,182	31,990.4	204,850	-24.8%	-16.4%
SOFR	931.5	6,350	761.5	5,460	22.3%	16.3%
GBP LIBOR	1,872.3	15,764	5,417.2	37,408	-65.4%	-57.9%
SONIA	2,703.5	19,068	4,488.8	15,956	-39.8%	19.5%
CHF LIBOR	142.9	2,909	238.9	3,651	-40.2%	-20.3%
SARON	11.6	186	7.0	52	64.8%	257.7%
JPY LIBOR	549.1	9,485	1,214.4	13,081	-54.8%	-27.5%
TIBOR/Euroyen TIBOR	10.2	69	1.4	19	646.3%	263.2%
TONA	46.0	253	98.8	221	-53.4%	14.5%
EUR LIBOR	0.2	4	0.8	10	-73.4%	-60.0%
EURIBOR	8,985.2	79,299	11,687.0	95,637	-23.1%	-17.1%
€STR	92.6	407	43.7	322	112.0%	26.4%
Other*	11,398.7	137,362	14,226.5	162,244	-19.9%	-15.3%
<b>Total**</b>	<b>50,809.0</b>	<b>442,338</b>	<b>70,176.3</b>	<b>538,911</b>	<b>-27.6%</b>	<b>-17.9%</b>

\*Other includes IRD with other reference rates, IBOR/non-RFR basis swaps and IBOR/IBOR basis swaps that reference different IBORs  
IBOR/IBOR basis swaps that reference the same IBOR are included in a corresponding IBOR category  
RFR/RFR basis swaps that reference different RFRs are included in both RFR basis swaps categories and, therefore, are double-counted  
\*\*This data includes only the transactions required to be disclosed under U.S. regulations and does not include any exchange-traded derivatives (futures)

Source: DTCC SDR

**Table 3: US IRD Traded Notional and Trade Count H1 2021 vs. H1 2020**

	H1 2021		H1 2020		H1 2021 vs. H1 2020	
	Traded Notional (US\$ billions)	Trade Count	Traded Notional (US\$ billions)	Trade Count	Traded Notional	Trade Count
USD LIBOR	56,055.5	376,032	65,602.2	401,824	-14.6%	-6.4%
SOFR	1,693.0	11,810	488.6	2,272	246.5%	419.8%
GBP LIBOR	7,289.4	53,172	8,243.2	66,310	-11.6%	-19.8%
SONIA	7,192.3	35,024	10,236.2	13,598	-29.7%	157.6%
CHF LIBOR	381.8	6,560	318.3	6,072	19.9%	8.0%
SARON	18.7	238	20.0	43	-6.5%	453.5%
JPY LIBOR	1,763.5	22,566	2,058.5	20,044	-14.3%	12.6%
TIBOR/Euroyen TIBOR	11.5	88	4.8	33	139.8%	166.7%
TONA	144.8	474	168.7	413	-14.2%	14.8%
EUR LIBOR	1.1	14	1.06	30	1.2%	-53.3%
EURIBOR	20,672.3	174,936	12,552.5	110,490	64.7%	58.3%
€STR	136.3	729	13.3	70	926.4%	941.4%
Other*	25,625.2	299,606	44,270.8	272,182	-42.1%	10.1%
<b>Total**</b>	<b>120,985.2</b>	<b>981,249</b>	<b>143,978.3</b>	<b>893,381</b>	<b>-16.0%</b>	<b>9.8%</b>

\*Other includes IRD with other reference rates, IBOR/non-RFR basis swaps and IBOR/IBOR basis swaps that reference different IBORs  
IBOR/IBOR basis swaps that reference the same IBOR are included in a corresponding IBOR category  
RFR/RFR basis swaps that reference different RFRs are included in both RFR basis swaps categories and, therefore, are double-counted  
\*\*This data includes only the transactions required to be disclosed under U.S. regulations and does not include any exchange-traded derivatives (futures)

Source: DTCC SDR

**Table 4: US RFR-linked IRD Traded Notional and Trade Count by Tenor**

	Q2 2021		YTD Q2 2021	
	Traded Notional (US\$ billions)	Trade Count	Traded Notional (US\$ billions)	Trade Count
SOFR	931.5	6,350	1,693.0	11,810
Up to 1 year	431.5	516	741.5	855
Over 1 year and up to 5 years	335.9	3,278	652.4	6,005
Over 5 years	164.1	2,556	299.1	4,950
SONIA	2,703.5	19,068	7,192.3	35,024
Up to 1 year	1,600.4	1,559	5,156.1	3,965
Over 1 year and up to 5 years	663.9	6,775	1,195.2	11,107
Over 5 years	439.2	10,734	840.9	19,952
SARON	11.6	186	18.7	238
Up to 1 year	4.8	15	9.0	27
Over 1 year and up to 5 years	3.9	75	6.1	98
Over 5 years	2.9	96	3.5	113
TONA	46.0	253	144.8	474
Up to 1 year	30.7	74	121.4	224
Over 1 year and up to 5 years	12.8	122	19.9	165
Over 5 years	2.5	57	3.5	85
€STR	92.6	407	136.3	729
Up to 1 year	75.5	100	102.1	144
Over 1 year and up to 5 years	10.5	127	20.8	256
Over 5 years	6.6	180	13.4	329

RFR/RFR basis swaps that reference different RFRs are included in both RFR basis swaps categories and, therefore, are double-counted  
This data includes only the transactions required to be disclosed under U.S. regulations and does not include any exchange-traded derivatives (futures)

Source: DTCC SDR

**Table 5: US RFR-linked IRD Traded Notional and Trade Count by Product**

	Q2 2021		YTD Q2 2021	
	Traded Notional (US\$ billions)	Trade Count	Traded Notional (US\$ billions)	Trade Count
<b>SOFR</b>	931.5	6,350	1,693.0	11,810
<b>OIS</b>	509.2	3,396	903.9	6,088
Basis Swaps	377.5	1,839	721.8	4,019
Fixed-for-Floating IRS	6.6	96	9.2	142
Cross Currency IRS	0.7	13	0.9	21
Inflation Swaps	0.0	0	0.0	0
Exotics	18.2	463	23.6	601
Options	10.2	188	15.6	217
Cap Floor	9.1	355	18.0	722
<b>SONIA</b>	2,703.5	19,068	7,192.3	35,024
<b>OIS</b>	2,507.3	18,001	6,887.9	33,252
Basis Swaps	63.2	349	126.0	710
Fixed-for-Floating IRS	18.0	54	18.2	56
Cross Currency IRS	0.2	2	0.5	7
Inflation Swaps	0.0	0	0.0	0
Exotics	0.2	4	1.9	22
Options	109.6	608	151.4	913
Cap Floor	5.1	50	6.4	64
<b>SARON</b>	11.6	186	18.7	238
<b>OIS</b>	11.4	181	18.5	233
Basis Swaps	0.2	5	0.2	5
Fixed-for-Floating IRS	0.0	0	0.0	0
Cross Currency IRS	0.0	0	0.0	0
Inflation Swaps	0.0	0	0.0	0
Exotics	0.0	0	0.0	0
Options	0.0	0	0.0	0
Cap Floor	0.0	0	0.0	0
<b>TONA</b>	46.0	253	144.8	474
<b>OIS</b>	44.1	210	141.7	423
Basis Swaps	1.1	29	2.3	36
Fixed-for-Floating IRS	0.5	2	0.5	2
Cross Currency IRS	0.0	0	0.0	0
Inflation Swaps	0.0	0	0.0	0
Exotics	0.0	0	0.0	0
Options	0.3	8	0.3	9
Cap Floor	0.0	4	0.0	4
<b>€STR</b>	92.6	407	136.3	729
<b>OIS</b>	90.7	387	134.0	702
Basis Swaps	1.9	20	2.3	27
Fixed-for-Floating IRS	0.0	0	0.0	0
Cross Currency IRS	0.0	0	0.0	0
Inflation Swaps	0.0	0	0.0	0
Exotics	0.0	0	0.0	0
Options	0.0	0	0.0	0
Cap Floor	0.0	0	0.0	0

RFR/RFR basis swaps that reference different RFRs are included in both RFR basis swaps categories and, therefore, are double-counted  
This data includes only the transactions required to be disclosed under U.S. regulations and does not include any exchange-traded derivatives (futures)

Source: DTCC SDR

## IBOR-LINKED OTC IRD IN THE US

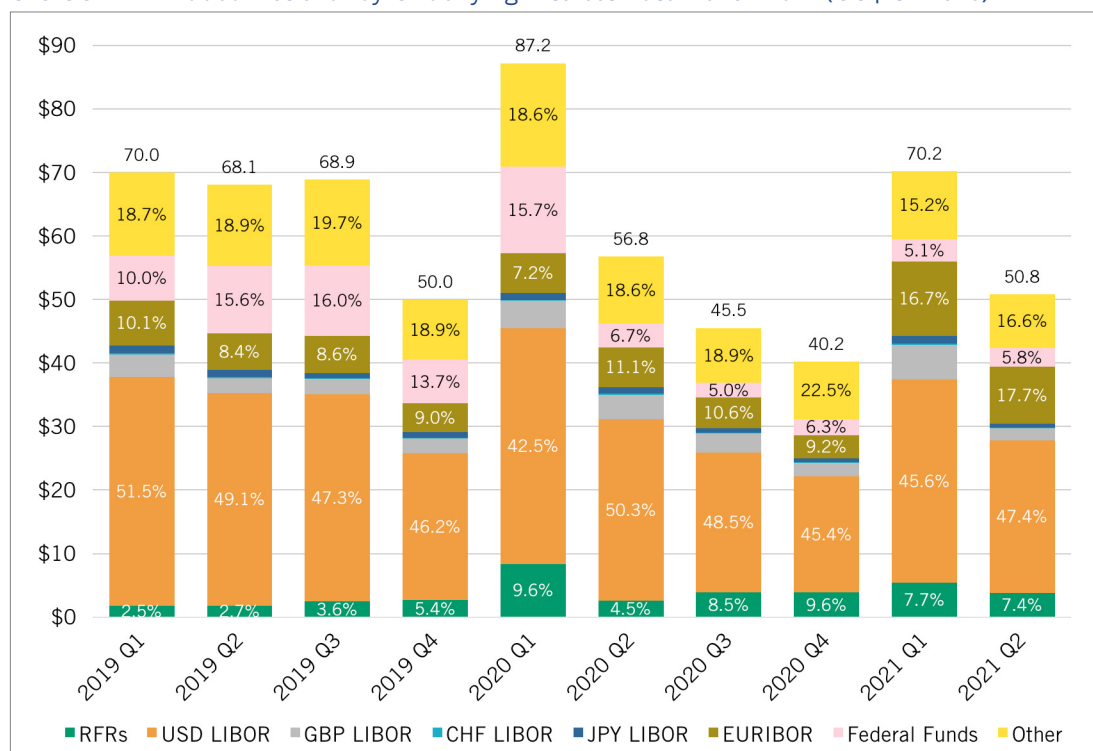
OTC IRD traded notional referencing LIBOR denominated in US dollars, sterling, Swiss franc, yen and euro, as well as EURIBOR and TIBOR, equaled \$35.6 trillion in the second quarter of 2021, representing 70.1% of total IRD traded notional<sup>15</sup>. The number of IRD trades referencing IBORs totaled 278.7 thousand, accounting for 63.0% of total IRD trade count.

IRD traded notional based on US dollar LIBOR equaled \$24.1 trillion, accounting for 47.4% of total IRD traded notional in the second quarter of 2021 (see Chart 9). EURIBOR and sterling LIBOR IRD traded notional was \$9.0 trillion and \$1.9 trillion, respectively. IRD traded notional referencing the effective federal funds rate totaled \$3.0 trillion and accounted for 5.8% of IRD traded notional.

In comparison, IRD traded notional referencing LIBOR denominated in US dollar, sterling, Swiss franc, yen and euro, as well as EURIBOR and TIBOR, equaled \$50.6 trillion and represented 72.0% of total IRD traded notional in the first quarter of 2021.

In the first half of 2021, OTC IRD traded notional referencing IBORs totaled \$86.2 trillion (71.2% of total IRD traded notional) compared to \$88.8 trillion (61.7% of total IRD traded notional) in the first half of 2020. The number of trades referencing IBORs equaled 633.4 thousand in the first half of 2021 compared to 604.8 thousand in the first half of 2020.

**Chart 9: IRD Traded Notional by Underlying Interest Rate Benchmark (US\$ trillions)**



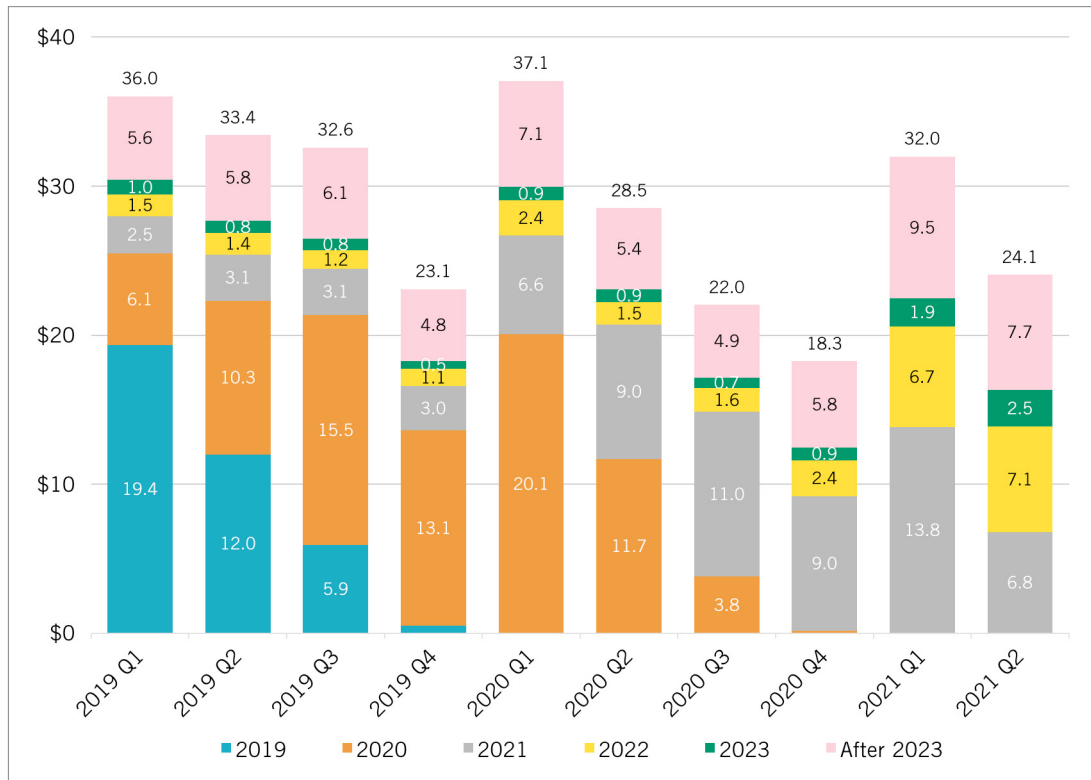
Source: DTCC SDR

<sup>15</sup> This data covers only transactions that are required to be disclosed under US regulations



Of the \$24.1 trillion of US dollar LIBOR-linked IRD traded notional in the second quarter of 2021, \$6.8 trillion had a 2021 maturity, while \$7.7 trillion had a maturity after 2023 (see Chart 10).

**Chart 10: US dollar LIBOR IRD Traded Notional by Maturity (US\$ trillions)**

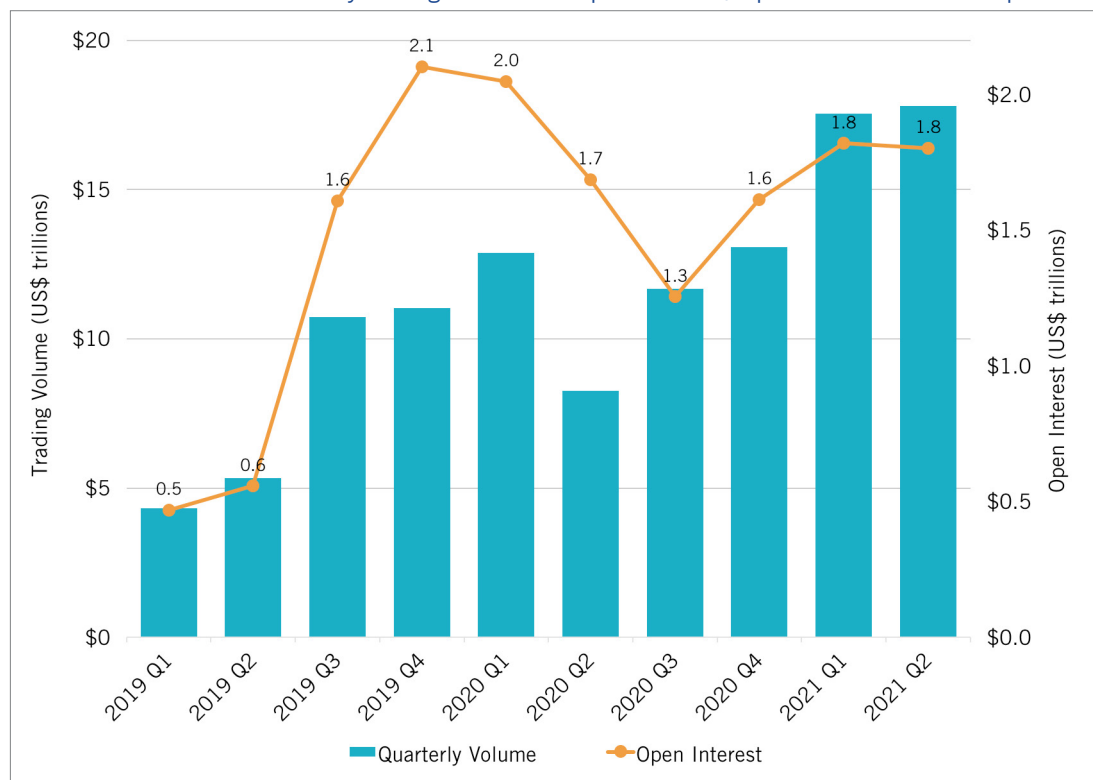


Source: DTCC SDR

## SOFR AND SONIA FUTURES

Trading volume in SOFR futures increased by 1.5% to \$17.8 trillion in the second quarter of 2021 from \$17.5 trillion in the first quarter of 2021. Open interest was \$1.8 trillion at the end of June 2021, flat compared to the end of the first quarter 2021<sup>16</sup> (see Chart 11).

**Chart 11:** SOFR Futures Quarterly Trading Volume and Open Interest (Implied Notional in OTC Equivalent)

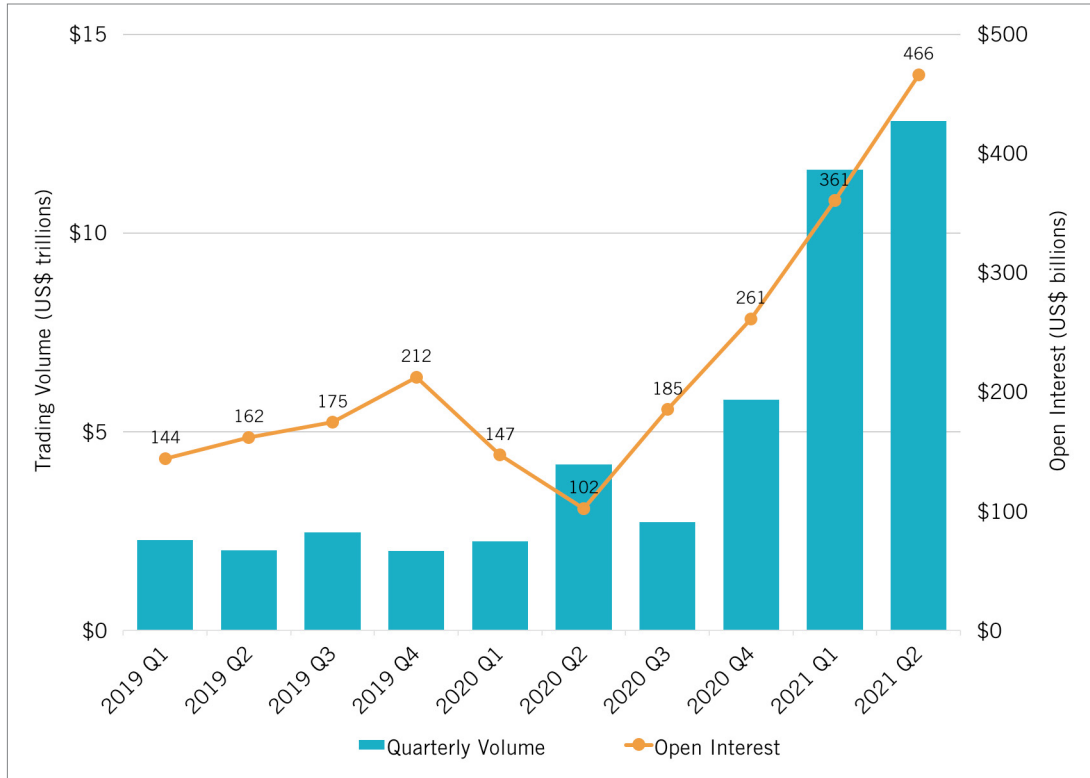


Source: CME and ICE

Trading volume in SONIA futures increased to \$12.8 trillion in the second quarter of 2021 from \$11.6 trillion in the previous quarter. Open interest increased to \$466.0 billion at the end of June 2021 compared to \$360.6 billion at the end of March 2021 (see Chart 12).

<sup>16</sup> The analysis of trading activity in SOFR and SONIA exchange-traded futures is based on data from CME, ICE and LCH

**Chart 12: SONIA Quarterly Trading Volume and Open Interest (Implied Notional in OTC Equivalent)**



Source: CME, ICE and LCH



ISDA has published other recent research papers:

- ***ISDA-Clarus RFR Adoption Indicator: June 2021, July 2021***  
<https://www.isda.org/a/PBEgE/ISDA-Clarus-RFR-Adoption-Indicator-June-2021.pdf>
- ***Transition to RFRs Review: First Quarter of 2021, April 2021***  
<https://www.isda.org/a/PBEgE/ISDA-Clarus-RFR-Adoption-Indicator-June-2021.pdf>
- ***Adoption of RFRs: Major Developments in 2021, April 2021***  
<https://www.isda.org/a/MzFTE/Adoption-of-RFRs-Major-Developments-in-2021.pdf>

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