

ISSUER SERVICES

**LIBOR REPLACEMENT INDEX FILE SPECIFICATION GUIDE: AUTOROUTE ID
05983676 (PSE); ID 05213676 (PROD)**

APRIL 6, 2023



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THE LIBOR REPLACEMENT INDEX FILE

The London Inter-Bank Offered Rate index will be retired in June 2023. Securities that are currently using LIBOR (USD) to calculate their interest rates will need to choose and communicate a replacement rate to the investor community ahead of the retirement date.

By centralizing the communication of the replacement for LIBOR; issuers, their associated trustees, agents, and the investor community alike can use the new DTCC process to be prepared well in advance of the LIBOR retirement rate.

To facilitate this communication, DTCC has created the LIBOR Replacement Index Communication Tool (Communication Tool) that will allow issuers, trustees and agent to:

- Provide contact information for Information Submitters and Information Sources
- Provide benchmark replacement details for multiple CUSIPs through .CSV or Excel upload

The new process will allow for the fielding of descriptive reference data for efficient, machine-to-machine communication instead of assigning individuals or teams to review large, complex legal documents to determine these details.

This file will be available for intraday pickup Monday – Friday at 8:00 AM ET, 3:00 PM ET and 8:00 PM ET. Each file slice will include submissions added after each slice run time. For example, data submitted through the LIBOR Replacement Index Communication Tool after 8:00 AM will be on the 3:00 PM file. In addition to the data received after 3:00 PM the 8:00 PM file will contain the entire day's submissions (from 8:00 AM to 8:00 PM). Data submitted through the Communication Tool after 8:00 PM on Friday, will be available on the 8:00 AM file on Monday.

HEADER RECORD LAYOUT: AUTOROUTE HEADER RECORD FOR ARR AND TERM SOFR

ARR and Term SOFR AutoRoute product # 05213676 has an 8-byte header date format.

Note

AutoRoute files do not have trailers.

Autoroute Header Record – 8-Digit Date Format

Field Name	Length	Start	End	Type	Comments
Header ID	6	1	6	A/N	Always = 1 TRANS
Application Date	8	7	14	NUM	CCKYYMMDD
Reserved	2	15	16		Do not use
Product Number	3	17	19	NUM	
Product Description	20	20	39	A/N	Alpha Product Description
Reserved	3	40	42		Do not use
Reserved	1	43	43		Do not use
Multi-Cycle Transmission Counter	2	44	45	A/N	01-99 Logical multi-cycle count of the job sent, or Spaces = Not multi-cycle
Poss Dupe Indicator	1	46	46	A/N	Space = original transmission 1 = Poss Dupe from DTCC
Product ID	8	47	54	NUM	8-digit code issued by DTCC to identify the report or file
Application's Multi- Cycle Counter	2	55	56	NUM	1, 2, ..., 97 = Applications which provide more than one output per day have a sequential number for each output. Final output cycle number for a day = 98 Spaces = Not multi-cycle
Recipient ID	7	57	63	A/N	This code is assigned to the destination of this transmission. It normally begins with the four-digit broker ID number.
Constant	1	64	64	NUM	Always = 0 (zeros) (Contains other values for DTCC internal distribution)

Field Name	Length	Start	End	Type	Comments
Record Count	9	65	73	NUM	Number of data records or print lines that follow
Sender ID	4	74	77	A/N	Always = DTCC
Constant	3	78	80	A/N	Always = CDT Last field of 80-byte RJE header
Reserved	1	81	81		Do not use
Date Created	8	82	89	A/N	MMDDCCYY
Reserved	3	90	92		Do not use
Time Created	5	93	97	A/N	HH:MM
Reserved	4	98	101		Do not use
Constant	3	102	104	A/N	Always = RDT
Reserved	1	105	105		Do not use
Date released	8	106	113	A/N	MMDDCCYY File transmission date
Reserved	3	114	116		Do not use
Time released	5	117	121	A/N	HH:MM File transmission time
Reserved	12	122	133		Do not use
Filler	N	133	N		Do not use -- padding to match file record size
END OF RECORD					

TERM SOFR AND ARR RECORD DETAILS

The layout below describes the Term SOFR rate type. The SOFR rate is the Secured Overnight Financing Rate produced by the U.S. Federal Reserve System. The indices described here are term or one month or greater.

Term SOFR File Details

Term SOFR File Details					
Position	Length	Format	Field Name	Field Description	Valid Values
1	4	Character	Rate type	Either Alternative Reference Rate (ARR) or Secured Overnight Financing Rate (SOFR)	
5	9	Character	CUSIP	A CUSIP is a security identifier and is composed of nine characters and can include letters and numbers	Nine-digit alphanumeric security ID
14	1	Character	CUSIP on DTC Masterfile	CUSIP is present on the DTCC Master Table	Y or N <ul style="list-style-type: none"> Y = Yes N = No
15	1	Character	Replacement Choice Made	Field that describes to the market whether the issue has chosen a LIBOR replacement. If set to Yes, a replacement has been made. If set to No, it can be determined that a choice has not yet been made and that another record will be submitted once a replacement index has been decided upon.	Y or N <ul style="list-style-type: none"> Y = Yes N = No
16	1	Character	Updated Submission	To indicate if previously input data being updated with this record	Y or N <ul style="list-style-type: none"> Y = Yes N = No
17	70	Character	Submitter Company	The firm or organization, whose personnel are inputting a replacement rate change into the LIBOR Replacement Index Communication Tool.	Enter a Company Name

Term SOFR File Details					
87	20	Character	Submitter Entity Type	The type of service that the firm is performing on behalf of or as the issuer of this security.	<ul style="list-style-type: none"> • Paying Agent • Transfer Agent • Calculation Agent • Determining Person • Issuer • Trustee • Other
107	140	Character	Submitter Contact Email	The email address of the contact at the firm or organization inputting a replacement rate change into the LIBOR Replacement Index Communication Tool.	Enter an e-mail address
247	1	Character	Information Source Indicator	If the Information Source is different from the Submitter	Y or N <ul style="list-style-type: none"> • Y = Yes • N = No
248	70	Character	Information Source / Provider Company Name	The firm or organization that was responsible for the selection of replacement index	Enter a Company Name
318	20	Character	Information Source / Provider Entity Type	The type of service that the firm who selected the replacement index performs on behalf of the security	<ul style="list-style-type: none"> • Paying Agent • Transfer Agent • Calculation Agent • Determining Person • Issuer • Trustee • Other
338	140	Character	Information Source / Provider Contact email	The email address of the contact at the firm or organization responsible for selecting the replacement index	Enter an e-mail address
478	55	Character	Fallback Rate Index	The fallback / replacement index.	<ul style="list-style-type: none"> • CME Term SOFR • ICE Term SOFR • Term SOFR Refinitiv Cash Fallback Rates-Consumer • Term SOFR Refinitiv Cash Fallback Rates-Institutional
533	3	Character	Fallback Rate Tenor	The tenor represents the interest rate period.	1M / 3M / 6M / 12M
536	2	Character	Lookback Days	The number of business or calendar days prior to the fixing reset day on which to determine the rate.	Input the number of lookback days 0-20

Term SOFR File Details					
538	15	Character	Spread Adjustment Amount (bps)	To adjust against LIBOR, the ARRC/ISDA recommends a 5-year historical median for fallbacks to SOFR-based rates, however users can set spread level at any custom amount. This can be referred to as spread, margin, or applicable margin	See footnote: 1: <ul style="list-style-type: none"> • 1M = 11.448 • 3M = 26.161 • 6M = 42.826 • 12M = 71.513 • Other – please specify
553	8	Character	Margin Spread Amount (bps)	Additional spread assigned by the issuer.-This can be referred to as spread, margin, or applicable margin.	Input a basis point spread in whole basis points (e.g., a spread of .26161 in percentage points would be 26.161 in basis points).
561	10	Character	The First Non-LIBOR Reset Date	Start of ARR coupon period. This is used to determine day count fractions for act/act (ICMA) and act/365L conventions. All other calculations, including rate reference dates for term rates are based on the start date input	Use a calendar on the UI to input a date YYYY-MM-DD
571	28	Character	Floating Rate Calendar	The business calendar used for determining/applying fixing rates.	See footnote 2: <ul style="list-style-type: none"> • US Government Bond Market • And/or add free-form text representing another Calendar Type
599	202	Character	Filler	For Future Use	

² This value will appear blank on the LIBOR Replacement Index Communication Tool Review Submissions function unless a Reset Date has been specified and/or the Floating Rate Calendar field has been modified.

¹ Please remove the tenor when uploading a Spread Adjustment Amount when using the LIBOR Replacement Index Communication Tool. For example, input 11.448 instead of 1M = 11.448 on the upload spreadsheet.

ARR (Alternative Reference Rate) File Details

The layout below describes the Alternative Reference Rate - rate type. The ARR represents many different types of indices across many different tenors, some of which are derived from the SOFR rate type.

ARR File Details					
Position	Length	Format	Field Name	Field Description	Valid Values
1	4	Character	Rate Type	Either Alternative Reference Rate (ARR) or Secured Overnight Financing Rate (SOFR)	
5	9	Character	CUSIP	A CUSIP is a security identifier issued by CUSIP Global Services and is composed of nine characters and can include letters and numbers.	Nine-digit alphanumeric security ID
14	1	Character	CUSIP on DTC Masterfile	CUSIP is present on the DTCC Master Table	Y or N <ul style="list-style-type: none"> • Y = Yes • N = No •
15	1	Character	Replacement Choice Made	Field that describes to the market whether the issue has chosen a LIBOR replacement. If set to Yes, a replacement has been made. If set to No, it can be determined that a choice has not yet been made, and that another record will be submitted once a replacement index has been decided upon.	Y or N <ul style="list-style-type: none"> • Y = Yes • N = No
16	1	Character	Updated Submission	Is previously input data being updated with this submission?	Y or N <ul style="list-style-type: none"> • Y = Yes • N = No
17	70	Character	Submitter Company	The firm or organization, whose personnel are inputting a replacement rate change into the LIBOR Replacement Index Communication Tool.	Enter a Company Name
87	20	Character	Submitter Entity Type	The type of service that the firm is performing on behalf of or as the issuer of this security.	<ul style="list-style-type: none"> • Paying Agent • Transfer Agent • Issuer • Calculation Agent • Trustee • Determining Person

ARR File Details					
					<ul style="list-style-type: none"> • Other
107	140	Character	Submitter Contact Email	The email address of the contact at the firm or organization inputting a replacement rate change into the LIBOR Replacement Index Communication Tool.	Enter an email address
247	1	Character	Information Source Indicator	If the Information Source is different from the Submitter	Y or N <ul style="list-style-type: none"> • Y = Yes • N = No
248	70	Character	Information Source / Provider Company Name	The firm or organization that was responsible for the selection of replacement index	Enter Company Name
318	20	Character	Information Source / Provider Entity Type	The type of service that the firm who selected the replacement index performs on behalf of the security	<ul style="list-style-type: none"> • Paying Agent • Transfer Agent • Calculation Agent • Determining Person • Issuer • Trustee • Other
338	140	Character	Information Source / Provider Contact email	The email address of the contact at the firm or organization responsible for selecting the replacement index	Enter Email address
478	40	Character	Fallback Rate Index	The fallback / replacement index.	SOFR Overnight Rate SOFR Averages As an extension of the Secured Overnight Financing Rate (SOFR), the SOFR Averages are compounded averages of the SOFR over rolling 30-, 90-, and 180-calendar day periods. <ul style="list-style-type: none"> • SOFR 30-day avg • SOFR 90-day avg • SOFR 180-day avg SOFR Index The SOFR Index measures the cumulative impact of compounding

ARR File Details

					<p>the SOFR on a unit of investment over time, with the initial value set to 1.00000000 on April 2, 2018, the first value date of the SOFR.</p> <p>Fed Funds</p> <ul style="list-style-type: none"> • Effective Federal Funds Rate • Overnight Bank Funding Rate • Tri-Party General Collateral Rate • Broad General Collateral Rate <p>Refinitiv Fallbacks</p> <ul style="list-style-type: none"> • Refinitiv O/N • Refinitiv 1W • Refinitiv 1M • Refinitiv 2M • Refinitiv 3M • Refinitiv 6M • Refinitiv 12M <p>BSBY</p> <ul style="list-style-type: none"> • BSBY O/N • BSBY 1M • BSBY 3M • BSBY 6M • BSBY 12M <p>AMERIBOR</p> <ul style="list-style-type: none"> • AMERIBOR O/N • AMERIBOR 1W • AMERIBOR 1M • AMERIBOR 3M • AMERIBOR 6M • AMERIBOR 1Y • AMERIBOR 2Y • AMERIBOR 30-day average • AMERIBOR 90-day average • AMERIBOR 30T derived • AMERIBOR 90T derived
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ARR File Details					
					<p>PRIME</p> <p>SOFR ICE Swap Rate</p> <ul style="list-style-type: none"> • SOFR ISR 1Y • SOFR ISR 2Y • SOFR ISR 3Y • SOFR ISR 4Y • SOFR ISR 5Y • SOFR ISR 6Y • SOFR ISR 7Y • SOFR ISR 8Y • SOFR ISR 9Y • SOFR ISR 10Y • SOFR ISR 15Y • SOFR ISR 20Y • SOFR ISR 30Y <p>Synthetic USD LIBOR</p> <p>SOFR ICE Spread-Adjusted ICE Swap Rate</p> <ul style="list-style-type: none"> • SOFR Spread-Adjusted ISR 1Y • SOFR Spread-Adjusted ISR 2Y • SOFR Spread-Adjusted ISR 3Y • SOFR Spread-Adjusted ISR 4Y • SOFR Spread-Adjusted ISR 5Y • SOFR Spread-Adjusted ISR 6Y • SOFR Spread-Adjusted ISR 7Y • SOFR Spread-Adjusted ISR 8Y • SOFR Spread-Adjusted ISR 9Y • SOFR Spread-Adjusted ISR 10Y • SOFR Spread-Adjusted ISR 15Y • SOFR Spread-Adjusted ISR 20Y • SOFR Spread-Adjusted ISR 30Y <p>Other – Please see PDF</p>

ARR File Details					
518	15	Character	Spread Adjustment Amount (bps)	To adjust against LIBOR, the ARRC/ISDA recommends a 5-year historical median for fallbacks to SOFR-based rates, however users can set spread, margin, or applicable margin	See footnote 2: <ul style="list-style-type: none"> • O/N = .64 • 1M = 11.448 • 3M = 26.161 • 6M = 42.826 • 12M = 71.513 • Other – please specify
533	8	Character	Margin Spread (bps)	Additional spread assigned by the issuer. This can be referred to as spread, margin, or applicable margin.	Input a basis point spread in whole basis points (e.g., a spread of .26161 in percentage points would be 26.161 in basis points).
541	18	Character	Spread Methodology	This defines how the spread will be incorporated into the interest calculation.	<ul style="list-style-type: none"> • Spread Inclusive • Spread Exclusive • Flat
559	25	Character	Day Count Convention	System representing the day count convention used for calculating yields and/or accrued interest	<ul style="list-style-type: none"> • Act/360 • Act/365L • Act/Act • Act/365F • 30/360 • 30E/360
584	25	Character	Interest Accrual Methodology	The interest accrual calculation methodology	<ul style="list-style-type: none"> • Compound in-Arrears • Simple Daily in-Arrears • Average in-Arrears • Compound in-Advance • Term • Other
609	8	Character	Lookback Days Type	The calendar usage type Defines whether the lookback days are counted in calendar days or business days only.	<ul style="list-style-type: none"> • Business • Calendar
617	2	Character	Lookback Days	The number of business or calendar days prior to the fixing reset day on which to determine the rate.	Input the number of lookback days 0-20 days
619	3	Character	Observation Shift	The Observation Shift is used to align the interest rate with the	Input the observation shift -20 to 20

² Please remove the tenor when uploading a Spread Adjustment Amount when using the LIBOR Replacement Index Communication Tool. For example, input 11.448 instead of 1M = 11.448 on the upload spreadsheet.

ARR File Details					
				appropriate day count weighting when a lookback is used	
622	2	Character	Lockout Days	Indicates the number of days prior to the end of the current coupon rate observation period where the current rate will cease being subject to reset.	Input the number of lockout days 0-20 days
624	2	Character	Payment Delay Days	Delay between the end of the accrual period and the payment.	Input the number of lockout days 0-20 days
626	26	Character	Rounding Instructions	Rounding can be applied to annualized rate of interest pre calculation, or round final output.	Round Input rate Round Final Rate Round Final and Input Rate No Rounding
652	1	Character	Rounding Decimals Places	The number of decimal places to round numbers to, rounding instruction can be found in term sheets and other securities prospectus including where to apply rounding in the calculation process.	a value between 0 and 8
653	40	Character	Business Day Convention	The business day convention determines how to proceed when a date which is relevant for the payment or calculation of interest falls on a non-business day.	<ul style="list-style-type: none"> • Business Day Adjusted • Following Business Day Unadjusted • Modified Business Day Adjusted • Modified Business Day Unadjusted • Preceding Business Day Adjusted • Preceding Business Day Unadjusted
693	10	Character	The First Non-LIBOR Reset Date	Start of ARR coupon period. This is used to determine day count fractions for act/act (ICMA) and act/365L conventions. All other calculations, including rate reference dates for term rates are based on the start date input.	Use a calendar on the UI to input a date YYYY-MM-DD
703	28	Character	Floating Rate Calendar	The business calendar used for determining/applying fixing rates.	See footnote 3: <ul style="list-style-type: none"> • US Government Bond Market

ARR File Details					
					<ul style="list-style-type: none"> And/or add free-form text representing another Calendar Type
731	70	Character	Filler	For Future Use	

³This value will appear blank on the LIBOR Replacement Index Communication Tool Review Submissions function unless a Reset Date has been specified and/or the Floating Rate Calendar field has been modified.

ARR AND TERM SOFR DATA DICTIONARIES

The following data dictionaries define the data elements available for communicating a LIBOR Replacement Index choice to DTCC. You can refer to the data dictionaries as a good source for detailed information. Within the dictionaries we include:

- a description of the field,
- whether the field was required or optional, and
- why the field is important
- the valid values that can be added to a field.

ARR Data Dictionary

Click to open the [ARR Data Dictionary](#).

Term SOFR Data Dictionary

Click to open the [Term SOFR Data Dictionary](#).

FOR MORE INFORMATION

Email DTCC at:

DTCSupport@dtcc.com

or visit us on the web at:

<http://www.dtcc.com/client-center>