

ICE Trade Vault Service and Pricing Schedule: Credit Asset Class

The following fee structure for ICE Trade Vault is applicable to the reporting of data in respect of swaps (as defined in the Dodd-Frank Act) ("Swaps") in the Credit Asset Class to the ICE SDR Service:

- Repository Fees will be charged based on a published rate per quantity unit for each market type in the Credit Asset Class. The Repository Fee rates for the Credit Asset Class are set forth in Annex Α.
- Repository Fees for the Credit Asset Class will be assessed upon acceptance of the initial trade record for a Swap by the SDR and will be charged as follows:
 - o Uncleared/Bilateral Swap or Uncleared/Bilateral Option¹ A Repository Fee will be charged to each Participant that is a party to the Trade, except that only the party that is not the designated reporting party under CFTC Regulations will be charged in the case of a voluntary supplemental report (as such term is used in Part 45 of the CFTC Regulations);
 - o On-Facility "Intended-To-Be-Cleared" (ITBC) Trades² No Repository Fee will be charged to either Participant that is a party to an original (aka "alpha") Swap or Option executed on a swap execution facility or designated contract market and submitted for clearing contemporaneously with execution; and
 - Clearing Swap or Clearing Option A Repository Fee will be charged to the Derivatives Clearing Organization ("DCO") that cleared the Swap or Option.
- Investment Manager Participants³: Investment Manager Participants reporting trades on behalf of the funds and client accounts they manage or advise will be charged as a single entity for all trade sides for which they are listed as adviser. The underlying funds and client accounts will not be charged a fee. The minimum and cap listed herein will be applied at the Asset/Investment Manager/Agent Participant level, inclusive of their own trades or any trades reported by them as an Agent.
- For all transactions reported by a Third Party Reporter, the Third Party Reporter will only be charged a Repository Fee for those transactions it reports on behalf of non-Participants of ICE Trade Vault Europe and will be charged in the following manner:
 - If the Third Party Reporter is reporting only for one non-Participant, it will be charged the Repository Fee.
 - o If the Third Party Reporter is reporting for both the non-Participant for whom they are acting as a Third Party Reporter for and their counterparty, it will be charged 1.5x the Repository Fee.

The references to Uncleared/Bilateral Swap and Uncleared/Bilateral Option include an original (aka "alpha") Swap or Option that is <u>not</u> executed on a swap execution facility or designated contract market but is submitted for clearing following execution.

This term refers to trades that are (i) of a type accepted for clearing by a DCO and (ii) intended to be submitted for clearing contemporaneously with execution.

The term "

The term "Investment Manager Participant" refers to a firm that provides investment advice to or otherwise acts as investment manager for third party accounts or funds for compensation.



- The minimum and cap listed herein will be applied to each non-participant for which the Third Party Reporter is reporting.
- The minimum monthly invoice per Participant will be \$375 across all asset classes. In a given month, each Participant shall be invoiced the greater of (i) the total of all Repository Fees incurred by Participant across all asset classes, or (ii) \$375. The minimum monthly invoice only applies to Participants who have open positions in any asset class in the SDR.
- The maximum monthly invoice ("Cap") per Participant (other than Trusted Sources) will be \$44,500 across all asset classes, including Commodities, Credit, FX, and Interest Rates. In a given month, no fee will be due to ICE Trade Vault from a Participant (other than a Trusted Source) above this amount.
- No rebates, share of profits, or dividends will be paid to any Participant or group of Participants.
- No additional fees will be assessed by ICE Trade Vault for storing trade data, processing life-cycle events, valuations, supporting upgrades, integrating and maintaining APIs, or help desk assistance. ICE Trade Vault will only assess fees as detailed above. All fees charged by ICE Trade Vault are uniform, equitable and non-discriminatory.
- No fees will be assessed by ICE Trade Vault for the transfer of Swaps in the Credit Asset Class which were previously reported to another SDR. For the avoidance of doubt, any Swaps in the Credit Asset Class reported after the transfer date will be invoiced in accordance with this Fee Schedule.
- A Participant has 30 days from the date of invoice to reconcile and dispute any charges, after which the Participant will be deemed to have accepted all charges as correct.

Last Update: November 21, 2016 Page 2



Service and Pricing Schedule

Annex A: Repository Fees for the Credit Asset Class

Set forth below are the Repository Fee Rates to be applied upon acceptance of an initial trade record in respect of Swaps in the Credit Asset Class to the ICE SDR Service:

CREDIT ASSET CLASS

Repository Fee rates for the Credit Asset Class will be as follows:

Contract Type Rate	Cleared Swap Rate	Cleared Option
Single name corporate & sovereigns notional	\$1.13 per \$1mm notional	\$1.13 per \$1mm
Index notional	\$0.45 per \$1mm notional	\$0.45 per \$1mm
Contract Type Uncleared/Bilateral Option	Uncleared/Bilateral Swap	
7.	Uncleared/Bilateral Swap \$1.13 per \$1mm notional	\$1.13 per \$1mm

Last Update: November 21, 2016



ICE Trade Vault Service and Pricing Schedule: Commodity, FX and Interest Rates Asset Classes

The following fee structure for ICE Trade Vault is applicable to the reporting of data in respect of swaps in the Commodity, FX and Interest Rates Asset Class to the ICE SDR Service:

- Repository Fees will be charged based on a published rate per quantity unit for each market type in the Commodity, FX and Interest Rates Asset Class.
- The Repository Fee rates for the Commodity Asset Class are set forth in Annex B. The Repository Fee rates for the FX Asset Class are set forth in Annex C. The Repository Fee rates for the Interest Rates Asset Class are set forth in Annex D. Repository Fees for these asset classes will be assessed upon acceptance of the initial trade record for a Swap by the SDR and will be charged as follows:
 - Uncleared/Bilateral Swap or Uncleared/Bilateral Option⁴ A Repository Fee will be charged to each Participant that is a party to the Trade, except that only the party that is not the designated reporting party under CFTC Regulations will be charged in the case of a voluntary supplemental report (as such term is used in Part 45 of the CFTC Regulations);
 - On-Facility "Intended-To-Be-Cleared" (ITBC) Trades⁵ No Repository Fee will be charged to either Participant that is a party to an original (aka "alpha") Swap or Option executed on a swap execution facility or designated contract market and submitted for clearing contemporaneously with execution;
 - Clearing Swap or Clearing Option A Repository Fee will be charged to the Derivatives Clearing Organization ("DCO") that cleared the Swap or Option; and
 - Exchange for Related Position ("EFRP") No Repository Fee will be charged to Participants that are a party to the EFRP.
- Investment Manager Participants⁶: Investment Manager Participants reporting trades on behalf of the funds and client accounts they manage or advise will be charged as a single entity for all trade sides for which they are listed as adviser. The underlying funds and client accounts will not be charged a fee. The minimum and cap listed herein will be applied at the Asset/Investment Manager/Agent Participant level, inclusive of their own trades or any trades reported by them as an Agent.
- For all transactions reported by a Third Party Reporter, the Third Party Reporter will only be charged a Repository Fee for those transactions it reports on behalf of non-Participants of ICE Trade Vault Europe and will be charged in the following manner:
 - o If the Third Party Reporter is reporting only for one non-Participant, it will be charged the

Last Update: November 21, 2016

⁴ The references to Uncleared/Bilateral Swap and Uncleared/Bilateral Option include an original (aka "alpha") Swap or Option that is <u>not</u> executed on a swap execution facility or designated contract market but is submitted for clearing following execution.

⁵ This term refers to trades that are (i) of a type accepted for clearing by a DCO and (ii) intended to be submitted for clearing contemporaneously with execution.

⁶ The term "Investment Manager Participant" refers to a firm that provides investment advice to or otherwise acts as investment manager for third party accounts or funds for compensation.



Repository Fee.

- If the Third Party Reporter is reporting for both the non-Participant for whom they are acting as a Third Party Reporter for and their counterparty, it will be charged 1.5x the Repository Fee.
- The minimum and cap listed herein will be applied to each non-participant for which the Third Party Reporter is reporting.
- The minimum monthly invoice per Participant will be \$375 across all asset classes. In a given month, each Participant shall be invoiced the greater of (i) the total of all Repository Fees incurred by Participant across all asset classes, or (ii) \$375. The minimum monthly invoice only applies to Participants who have open positions in any asset class in the SDR.
- The maximum monthly invoice ("Cap") per Participant (other than Trusted Sources) will be \$44,500 across all asset classes, including Commodities, Credit, FX, and Interest Rates. In a given month, no fee will be due to ICE Trade Vault from a Participant (other than a Trusted Source) above this amount.
- No rebates, share of profits, or dividends will be paid to any Participant or group of Participants.
- No additional fees will be assessed by ICE Trade Vault for storing trade data, processing life-cycle events, valuations, supporting upgrades, integrating and maintaining APIs or help desk assistance.
- ICE Trade Vault will only assess fees as detailed above. All fees charged by ICE Trade Vault are uniform, equitable and non-discriminatory and payments are due 30 calendar days from the invoice date.
- ICE Trade Vault invoices will be available by the 4th business day of each month via the web portal and it is the responsibility of each Participant to print and/or export the invoices for payment as the invoices will not be sent to Participants. An accounting contact should be maintained in the Contact page to receive notifications of ICE Trade Vault invoice availability.
- A Participant has 30 days from the date of invoice to reconcile and dispute any charges, after which the Participant will be deemed to have accepted all charges as correct.
- No fees will be assessed by ICE Trade Vault for the transfer of Swaps in any asset class which
 were previously reported to another SDR. For the avoidance of doubt, any Swaps reported after the
 transfer date will be invoiced in accordance with this Fee Schedule.

Last Update: November 21, 2016 Page 5



Service and Pricing Schedule

Annex B: Repository Fees for the Commodity Asset Class

Set forth below are the Repository Fee Rates to be applied upon acceptance of an initial trade record in respect of Swaps in the Commodity Asset Class to the ICE SDR Service:

Uncleared/Bilateral Swap, Uncleared/Bilateral Option, Cleared Swap or Cleared Option:

Market Type	Quantity Unit/Notional Unit	Rate when Contract Type = Swap or Forward	Rate when Contract Type = Option or Swaption
COMMODITY INDEX	AUD	\$0.0000079	\$0.0000012
COMMODITY INDEX	CAD	\$0.00058	\$0.00087
COMMODITY INDEX	EUR	\$0.00078	\$0.0012
COMMODITY INDEX	GBP	\$0.00091	\$0.0014
COMMODITY INDEX	INDEX LEVEL	\$0.0000011	\$0.0000017
COMMODITY INDEX	ETF UNIT	\$0.000028	\$0.000042
COMMODITY INDEX	JPY	\$0.000000091	\$0.00000014
COMMODITY INDEX	USD	\$0.000011	\$0.0000017
CONTINENTAL			
FINANCIAL	KW	\$0.00001	.000015
NATURAL GAS			
CONTINENTAL			
FINANCIAL	MWH	\$0.00034	\$0.00051
NATURAL GAS			
CONTINENTAL			•
FINANCIAL	THERMS	\$0.0000034	\$0.00000051
NATURAL GAS			
CONTINENTAL	MWH	\$0.00062	\$0.00093
FINANCIAL POWER		·	·
CONTINENTAL	B 45 A / L L	ФО 00004	фо 000 5 4
PHYSICAL	MWH	\$0.00034	\$0.00051
NATURAL GAS CONTINENTAL			
PHYSICAL POWER	MWH	\$0.00062	\$0.00093
EMISSIONS	CALIFORNIA CARBON ALLOWANCES	\$0.00030	\$0.00045
EMISSIONS	CAR	\$0.00025	\$0.00038
EMISSIONS	CFI	\$0.00025	\$0.00038
EMISSIONS	CRE	\$0.00032	\$0.00048
EMISSIONS	CROSS STATE AIR POLLUTION RULE TR NOX ANNUAL ALLOWANCE	\$0.12	\$0.18

Last Update: November 21, 2016



	CROSS STATE AIR		l
ENMOCIONO	POLLUTION RULE TR NOX	#0.40	00.40
EMISSIONS	OZONE SEASON TRADING	\$0.12	\$0.18
	PROGRAM ALLOWANCE		
	CROSS STATE AIR		
EMISSIONS	POLLUTION RULE TR SO2	\$0.024	\$0.036
	GROUP 1 ALLOWANCE		
	CROSS STATE AIR		
EMISSIONS	POLLUTION RULE TR SO2	\$0.024	\$0.036
	GROUP 2 ALLOWANCE		
EMISSIONS	CRT	\$0.00025	\$0.00038
EMISSIONS	ERU	\$0.00032	\$0.00048
EMISSIONS	EU ALLOWANCE	\$0.00032	\$0.00048
EMISSIONS	EU CREDIT	\$0.00032	\$0.00048
EMISSIONS	EUAA	\$0.00032	\$0.00048
EMISSIONS	MT	\$0.00025	\$0.00038
	MWH REPRESENTING		
EMISSIONS	CONNECTICUT CLASS 1	\$0.0020	\$0.0030
	RECS		
	MWH REPRESENTING		
EMISSIONS	MASSACHUSETTS CLASS	\$0.0020	\$0.0030
	1 RECS		
	MWH REPRESENTING		
EMISSIONS	NEW JERSEY CLASS 1	\$0.0010	\$0.0015
	RECS		
EMISSIONS	REGIONAL GREENHOUSE	\$0.00010	\$0.00015
	GAS INITIATIVE	·	•
EMISSIONS	SFI	0.0040	0.0060
EMISSIONS	TON	\$0.00010	\$0.00015
FINANCIAL	BOARD FEET	\$0.00002	\$0.00003
AGRICULTURES	_	, , , , , ,	*
FINANCIAL	BU	0.000053	0.000079
AGRICULTURES			
FINANCIAL AGRICULTURES	CWT	\$0.00066	\$0.0010
FINANCIAL AGRICULTURES	KG	\$0.000015	\$0.000022
FINANCIAL		+	
AGRICULTURES	LBS	\$0.000066	\$0.0000098
FINANCIAL			
AGRICULTURES	MT	\$0.015	\$0.022
FINANCIAL			
AGRICULTURES	ST	\$0.0026	\$0.0039
FINANCIAL COAL	MT	\$0.000072	\$0.00011
FINANCIAL COAL	ST	\$0.000072	\$0.00011
I INAMOIAL COAL	U1	ψυ.υυυτ∠	ψ0.00011



FINANCIAL NATURAL GAS	MMBTU	\$0.000021	\$0.000031
FINANCIAL NATURAL GAS	10,000 USD	\$0.000030	\$0.000045
FINANCIAL NATURAL GAS	BCF	\$0.00000000021	\$0.00000000031
FINANCIAL NATURAL GAS	MCF	\$0.000021	\$0.000031
FINANCIAL NATURAL GAS	GJ	\$0.000080	\$0.00012
FINANCIAL NATURAL GAS LIQUIDS	BBL	\$0.00032	\$0.00049
FINANCIAL NATURAL GAS LIQUIDS	GAL	\$0.000077	\$0.0000116
FINANCIAL NATURAL GAS LIQUIDS	LBS	\$0.000013	\$0.0000019
FINANCIAL NATURAL GAS LIQUIDS	MT	\$0.0028	\$0.0042
FINANCIAL OIL	BBL	\$0.00013	\$0.00020
FINANCIAL OIL	GAL	\$0.000003	\$0.000005
FINANCIAL OIL	KL	\$0.000021	\$0.000032
FINANCIAL OIL	L	\$0.00000021	\$0.00000032
FINANCIAL OIL	MT	0.0011	0.0016
FINANCIAL OIL	CUBIC METERS	\$0.000892	\$0.0014
FINANCIAL POWER	MW	\$0.015	\$0.023
FINANCIAL POWER	MWH	\$0.00064	\$0.00096
FINANCIAL POWER	KW	\$0.000015	\$0.000023
FREIGHT	CHARTER DAY	\$0.48	\$0.71
FREIGHT	MT	\$0.00035	\$0.00053
FREIGHT	WORLDSCALE POINTS	\$0.00035	\$0.00053
METALS	DMT	0.0020	0.0030
METALS	FTO	\$0.00013	\$0.00020
METALS	LBS	\$0.0000076	\$0.0000011
METALS	MT	\$0.0017	\$0.0025
METALS	ST	\$0.0019	\$0.0028
METALS	T/O	\$0.00000052	\$0.00000078
PHYSICAL CRUDE OIL	BBL	\$0.00013	\$0.00020
PHYSICAL CRUDE OIL	CUBIC METERS	\$0.00085	\$0.0013



PHYSICAL CRUDE OIL	GAL	\$0.0000032	\$0.0000048
PHYSICAL NATURAL GAS	GJ	\$0.000080	\$0.00012
PHYSICAL NATURAL GAS	MMBTU	\$0.000021	\$0.000031
PHYSICAL NATURAL GAS LIQUIDS	BBL	\$0.00032	\$0.00049
PHYSICAL NATURAL GAS LIQUIDS	CUBIC METERS	\$0.0000032	\$0.0000048
PHYSICAL NATURAL GAS LIQUIDS	GAL	\$0.0000077	\$0.000012
PHYSICAL NATURAL GAS LIQUIDS	LBS	\$0.0000013	\$0.000019
PHYSICAL POWER	MW	\$0.023	\$0.015
PHYSICAL POWER	MWH	\$0.00064	\$0.00096
PHYSICAL REFINED PRODUCTS	BBL	\$0.00013	\$0.00020
PHYSICAL REFINED PRODUCTS	GAL	\$0.0000032	\$0.0000048
UK FINANCIAL NATURAL GAS	THERMS	\$0.0000021	\$0.0000031
UK FINANCIAL NATURAL GAS	MMBTU	\$0.0000021	\$0.0000031
UK FINANCIAL POWER	MWH	\$0.00024	\$0.00036
UK PHYSICAL NATURAL GAS	THERMS	\$0.0000021	\$0.0000031
UK PHYSICAL POWER	MWH	\$0.00024	\$0.00036
WEATHER	INDEX POINT	\$0.016	\$0.024
All	EXOTIC – Per Trade Fee	\$16.00	\$16.00



Annex C: Repository Fees for the FX Asset Class

Set forth below are the Repository Fee Rates to be applied upon acceptance of an initial trade record in respect of Swaps in the FX Asset Class to the ICE SDR Service:

Asset Class	Quantity Unit/Notional Unit	Rate when Contract Type = Swap or Forward	Rate when Contract Type = Option or Swaption
FX	BRL	\$0.0000014	\$0.0000021
FX	CAD	\$0.0000048	\$0.0000072
FX	CNY	\$0.0000014	\$0.0000021
FX	EUR	\$0.000005	\$0.0000075
FX	GBP	\$0.0000069	\$0.000001
FX	USD	\$0.0000045	\$0.0000068



Annex D: Repository Fees for the Interest Rates Asset Class

Set forth below are the Repository Fee Rates to be applied upon acceptance of an initial trade record in respect of Swaps in the Interest Rates Asset Class to the ICE SDR Service:

Asset Class	Swaps rate	Options/Swaptions Rate
Interest Rates (USD)	\$1.02 per \$1mm notional	\$1.53 per \$1mm notional
Interest Rates (Euros)	\$1.08 per €1mm notional	\$1.62 per €1mm notional
Interest Rates (Pounds)	\$1.49 per £1mm notional	\$2.24 per £1mm notional