

tpSEF Inc.  
101 Hudson Street  
Jersey City  
NJ 07302-3908  
USA

tel +1 201 557 5000  
fax +1 201 557 5995

web [www.tullettprebon.com](http://www.tullettprebon.com)

October 26, 2017

**By CFTC Portal**

Mr. Christopher J. Kirkpatrick  
Office of the Secretariat  
Commodity Futures Trading Commission  
Three Lafayette Centre  
1155 21st Street, N.W.  
Washington, D.C. 20581

Re: *tpSEF Inc. – Regulation 40.2 Certification of Forward Rate Agreements (Uncleared) – ILS-TELBOR01-Reuters (tpSEF Submission #17-25P)*

Dear Mr. Kirkpatrick:

tpSEF Inc. (“tpSEF”) hereby notifies the Commodity Futures Trading Commission (the “Commission”) of its intent to list Forward Rate Agreements (Uncleared) – ILS-TELBOR01-Reuters (the “Contracts”) on tpSEF’s swap execution facility. tpSEF intends to list the Contracts on October 30, 2017.

Pursuant to Commission Regulation 40.2, this submission includes:

- i. The intended listing date – October 30, 2017;
- ii. A certification by tpSEF that: (a) the Contracts comply with the Commodity Exchange Act, as amended, and the Commission regulations thereunder; and (b) concurrent with this submission, tpSEF posted on its website: (i) a notice of pending certification of the Contracts, and (ii) a copy of this submission, attached as Exhibit A;
- iii. The terms and conditions of the Contracts, attached as Exhibit B; and
- iv. An explanation and analysis of the Contracts’ compliance with applicable core principles and Commission regulations, attached as Exhibit C.

tpSEF is listing the Contracts by virtue of updating the terms and conditions of Forward Rate Agreements submitted to the Commission for self-certification pursuant to Commission Regulation 40.2 on April 29, 2016. A copy of the terms and conditions marked to show changes from the version submitted on April 29, 2016 is attached as Exhibit D.

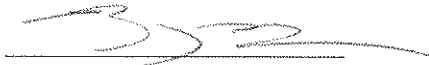
tpSEF will be separately updating Appendix B to its Rulebook (tpSEF Inc. Swap Specifications) to reflect this change.

Mr. Christopher J. Kirkpatrick  
October 26, 2017  
Page 2

Questions regarding this submission should be directed to Brian Donnelly, Chief Compliance Officer, at (201) 984-6956 or by email at [bddonnelly@tullettprebon.com](mailto:bddonnelly@tullettprebon.com).

Very truly yours,

tpSEF Inc.

By: 

Name: Brian D. Donnelly

Title: Chief Compliance Officer

Date: October 26, 2017

Enclosures

cc: CFTC Division of Market Oversight ([dmosubmissions@cftc.gov](mailto:dmosubmissions@cftc.gov))  
Roger Smith, CFTC ([rsmith@cftc.gov](mailto:rsmith@cftc.gov))


**EXHIBIT A**

CERTIFICATIONS PURSUANT TO SECTION 5c OF THE COMMODITY EXCHANGE ACT,  
7 U.S.C. §7A-2 AND COMMODITY FUTURES TRADING COMMISSION REGULATION 40.2,  
17 C.F.R. §40.2

tpSEF Inc. (“tpSEF”) hereby certifies that: (i) Forward Rate Agreements (Uncleared) – ILS-TELBOR01-Reuters (the “Contracts”) comply with the Commodity Exchange Act, 7 U.S.C. §1 *et seq.* and Commodity Futures Trading Commission (“Commission”) regulations thereunder; and (ii) concurrent with this submission, tpSEF posted on its website: (a) a notice of pending certification of the Contracts with the Commission and (b) a copy of this submission.

tpSEF Inc.

By: \_\_\_\_\_



Name: Brian D. Donnelly

Title: Chief Compliance Officer

Date: October 26, 2017

**EXHIBIT B**

**Terms and Conditions**

<b>Summary:</b>	This covers uncleared forward rate agreements (“Forward Rate Agreements” or “FRAs”).
<b>Limitations on Available Selections and Default Settings:</b>	<p>The terms under which an FRA may be traded are as specified in these terms and conditions and in the attached tables.</p> <p>For amounts or rates, the relevant term cannot be less than the specified Minimum, must represent an even Increment and cannot exceed the Maximum; for a date, the date cannot be earlier than Earliest nor later than Latest.</p> <p>For Business Days, the defaults shall be the locations specified for the relevant currency, any additional locations specified for the relevant Floating Rate Options.</p> <p>The parties may add additional locations from the Available Locations and may eliminate some or all of the other locations, so long as there is at least one location in which payment may be made. For these purposes “TARGET”/EUTA is considered a location.</p> <p>In many cases there are normal “vanilla” terms on which the parties will transact. These are shown as “Default” and will apply unless the parties vary them.</p> <p>It should be noted that these contracts can be traded in a variety of currencies. Since each national market has its own peculiarities, the “Available Terms” and/or “Default Terms” may vary by currency.</p> <p>In some cases, the same contract might have different terms depending on the market in which it is traded (<i>e.g.</i>, London versus NY). In that case the default settings may vary by market.</p>
<b>Incorporated Standards:</b>	<p>These terms and conditions incorporate by reference the following industry standard documentation and standards:</p> <ul style="list-style-type: none"> <li>(a) 2006 ISDA Definitions</li> <li>(b) ISDA OTC Taxonomies</li> <li>(c) FpML Location Codes</li> </ul> <p>For convenience, certain terms are mapped to their FpML 5.2.4 equivalent.</p>
<b>Product Type/ISDA OTC Taxonomy:</b>	
ISDA OTC Asset Class:	Interest Rate
ISDA OTC Base Product:	FRA
ISDA OTC Sub-Product:	N/A
Further Limitations:	None
<b>Terms:</b>	

Notional Amount (“notional”):	An amount in one of the Available Currencies (see below) agreed by the parties.
Effective Date (“adjustedEffectiveDate”):	The date specified by the parties, adjusted in accordance with any applicable Business Day Convention.
Effective Date Business Day Convention:	As specified by the parties from among the Available Business Day Conventions.
Termination Date (“adjustedTerminationDate”):	The date specified by the parties, adjusted in accordance with any applicable Business Day Convention.
Termination Date Business Day Convention:	As specified by the parties from among the Available Business Day Conventions.
Fixed Rate Payer (“buyerPartyReference”):	As specified by the parties.
Fixed Rate (“fixedRate”):	As specified by the parties.
Floating Rate Payer (“sellerPartyReference”):	As specified by the parties.
Payment Date (“paymentDate”):	As specified by the parties.
Floating Rate Option (“floatingIndex”):	As specified by the parties.
Designated Maturity (“indexTenor”):	As specified by the parties.
Spread:	As specified by the parties.
Floating Rate Day Count Fraction (“dayCountFraction”):	As specified by the parties.
Reset Date:	The Effective Date.
Discounting (“fraDiscounting”):	As specified by the parties.
Business Days:	As specified by the parties.
Calculation Agent:	As specified by the parties.

## FRA Available Currencies and Required Business Days

Three Letter Currency Code (ISDA/ISO)	Currency Name (ISDA)	Basic Business Day Locations For Currency (FpML Codes)
AUD	Australian Dollar	AUSY
CAD	Canadian Dollar	CATO
CZK	Czech Koruna	CZPR
DKK	Danish Krone	DKCO
EUR	Euro	EUTA
GBP	Sterling	GBLO
HUF	Hungarian Forint	HUBU
ILS	Israeli Shekel	ILTA
JPY	Japanese Yen	JPTO
NOK	Norwegian Krone	NOOS
NZD	New Zealand Dollar	NZAU and NZWE
PLN	Polish Zloty	PLWA
SEK	Swedish Krona	SEST
USD	United States Dollars	USNY
ZAR	South African Rand	ZAJO

## FRA Available Business Day Conventions

ISDA Name
Following
Modified/Modified Following
No Adjustment
Preceding

## FRA Available Day Count Fractions

ISDA Name
30/360, 360/360, Bond Basis
Actual/360
Actual/365 (Fixed), Act/365 (Fixed), A/365 (Fixed), A/365F
Actual/Actual, Actual/Actual (ISDA), Act/Act, Act/Act (ISDA)
Actual/Actual (ICMA), Act/Act, Act/Act (ICMA)
1/1

## FRA Notional Amounts

Currency	Minimum	Increment	Maximum	Default
AUD	5,000,000	100,000	N/A	N/A
CAD	5,000,000	100,000	N/A	N/A
CZK	5,000,000	100,000	N/A	N/A
DKK	5,000,000	100,000	N/A	N/A
EUR	5,000,000	100,000	N/A	N/A
GBP	5,000,000	100,000	N/A	N/A
HUF	5,000,000	100,000	N/A	N/A
ILS	5,000,000	100,000	N/A	N/A
JPY	500,000,000	10,000,000	N/A	N/A
NOK	5,000,000	100,000	N/A	N/A
NZD	5,000,000	100,000	N/A	N/A
PLN	5,000,000	100,000	N/A	N/A
SEK	5,000,000	100,000	N/A	N/A
USD	10,000,000	1,000,000	N/A	N/A
ZAR	5,000,000	100,000	N/A	N/A

## FRA Floating Rate Options and Defaults

Currency	Floating Rate Option (any from ISDA 2006 if not specified)	Available Tenors	Default Tenor	Default Day Count Fraction	Additional Business Day Locations	Default for Currency (Y/N)
AUD				Actual/360	N	
CAD						
CZK				Actual/360	N	
DKK						
EUR						
GBP						
HUF						
ILS	ILS-TELBOR01-Reuters	All quoted	N	Per ISDA 2006	N	Y
JPY						
NOK						
NZD	NZD-BBR-FRA	All quoted	N	Per ISDA 2006	N	Y
PLN						

Mr. Christopher J. Kirkpatrick

October 26, 2017

Page 7

SEK						
USD	USD-LIBOR- BBA		3M	Actual/360	GBLO	Y
ZAR						

FRA Discounting Types

ISDA Name	FpML	Default for (Currency)
FRA Discounting	ISDA	All but AUD
FRA Yield Discounting	AFMA	AUD
None	NONE	None

## EXHIBIT C

### **Explanation and Analysis of the Contract's Compliance with Applicable Core Principles and Commission Regulations**

As required by Commodity Futures Trading Commission ("Commission") Regulation 40.2(a), the following analysis, in narrative form, demonstrates that Forward Rate Agreements (Uncleared) (the "Contracts") are consistent with the requirements of the Commodity Exchange Act, as amended (the "Act"), and the Commission regulations and guidance thereunder (in particular, Appendix B to Part 37 and Appendix C to Part 38).

#### **Appendix B to Part 37**

#### **CORE PRINCIPLE 3 OF SECTION 5H OF THE ACT—SWAPS NOT READILY SUSCEPTIBLE TO MANIPULATION; CORE PRINCIPLE 4 OF SECTION 5H OF THE ACT—MONITORING OF TRADING AND TRADE PROCESSING**

**The swap execution facility shall permit trading only in swaps that are not readily susceptible to manipulation.**

#### **(a) *Guidance.***

**(1) In general, a swap contract is an agreement to exchange a series of cash flows over a period of time based on some reference price, which could be a single price, such as an absolute level or a differential, or a price index calculated based on multiple observations. Moreover, such a reference price may be reported by the swap execution facility itself or by an independent third party. When listing a swap for trading, a swap execution facility shall ensure a swap's compliance with Core Principle 3, paying special attention to the reference price used to determine the cash flow exchanges. Specifically, Core Principle 3 requires that the reference price used by a swap not be readily susceptible to manipulation. As a result, when identifying a reference price, a swap execution facility should either: Calculate its own reference price using suitable and well-established acceptable methods or carefully select a reliable third-party index.**

**(2) The importance of the reference price's suitability for a given swap is similar to that of the final settlement price for a cash-settled futures contract. If the final settlement price is manipulated, then the futures contract does not serve its intended price discovery and risk management functions. Similarly, inappropriate reference prices cause the cash flows between the buyer and seller to differ from the proper amounts, thus benefitting one party and disadvantaging the other. Thus, careful consideration should be given to the potential for manipulation or distortion of the reference price.**

The reference rate for the floating leg of the Contracts is one of several widely-used benchmarks such as USD-LIBOR-BBA. These rates are administered and calculated by third-party providers using specific guidelines. Many of these providers are regulated in their home jurisdictions.

The Contracts are not susceptible to manipulation for a number of reasons. First, interest rate products are very liquid – the market is very large and deep, making manipulation very difficult to achieve. Second, tpSEF has established rules and an enforcement infrastructure to prevent manipulation. tpSEF staff conduct real-time market surveillance and the National Futures Association ("NFA") provides regulatory services on a T+1 basis. NFA's services include comprehensive trade practice and market surveillance services (the scope of which can be found in the Regulatory Services Agreement between NFA and tpSEF submitted to the Commission as part of tpSEF's swap execution facility application) (note that the



foregoing also demonstrates compliance with Core Principle 4). Finally, the reference rates upon which the Contracts are based are difficult for any entity or group of market participants to manipulate.

**(3) For swaps that are settled by physical delivery or by cash settlement refer to the guidance in Appendix C to Part 38 of this chapter—Demonstration of Compliance that a Contract is not Readily Susceptible to Manipulation, section b(2) and section c(4), respectively.**

Please see below.

**Appendix C to Part 38 - Demonstration of Compliance That a Contract Is Not Readily Susceptible to Manipulation**

**(c) Futures Contracts Settled by Cash Settlement. (1) Cash settlement is a method of settling certain futures or option contracts whereby, at contract expiration, the contract is settled by cash payment in lieu of physical delivery of the commodity or instrument underlying the contract. An acceptable specification of the cash settlement price for commodity futures and option contracts would include rules that fully describe the essential economic characteristics of the underlying commodity (e.g., grade, quality, weight, class, growth, issuer, maturity, source, rating, description of the underlying index and index's calculation methodology, etc.), as well as how the final settlement price is calculated. In addition, the rules should clearly specify the trading months and hours of trading, the last trading day, contract size, minimum price change (tick size) and any limitations on price movements (e.g., price limits or trading halts).**

***Essential Economic Characteristics of the Contract Terms***

The terms and conditions of the Contracts match the terms of forward rate agreements that are commonly offered in the market and are listed in Exhibit B.

***Calculation of Cash Settlement Price***

The cash settlement price of a Contract is calculated by subtracting a stated fixed rate from a floating rate plus spread, determining the resultant current cash amount resulting from multiplying that rate difference (positive or negative) by a notional amount and day count fraction and then discounting that current cash amount by the floating rate plus spread.

**(2) Cash settled contracts may be susceptible to manipulation or price distortion. In evaluating the susceptibility of a cash-settled contract to manipulation, a designated contract market should consider the size and liquidity of the cash market that underlies the listed contract in a manner that follows the determination of deliverable supply as noted above in (b)(1). In particular, situations susceptible to manipulation include those in which the volume of cash market transactions and/or the number of participants contacted in determining the cash-settlement price are very low. Cash-settled contracts may create an incentive to manipulate or artificially influence the data from which the cash-settlement price is derived or to exert undue influence on the cash-settlement price's computation in order to profit on a futures position in that commodity. The utility of a cash-settled contract for risk management and price discovery would be significantly impaired if the cash settlement price is not a reliable or robust indicator of the value of the underlying commodity or instrument. Accordingly, careful consideration should be given to the potential for manipulation or distortion of the cash settlement price, as well as the reliability of that price as an indicator of cash market values. Appropriate consideration also should be given to the commercial acceptability, public availability, and timeliness of the price series that is used to calculate the cash settlement**

**price. Documentation demonstrating that the settlement price index is a reliable indicator of market values and conditions and is commonly used as a reference index by industry/market agents should be provided. Such documentation may take on various forms, including carefully documented interview results with knowledgeable agents.**

The Contracts operate in a very liquid market with numerous participants. Also, the cash settlement price is not easily susceptible to manipulation or distortion as the method of determining the price is based on factors that are fixed at the start of Contract (*i.e.*, payment frequency, day count conventions, fixed interest rate, floating reset dates) and the applicable reference rate. Each of the available reference rates is widely accepted by market participants, and data is readily accessible through numerous news outlets. Some of the currencies and associated benchmarks are, of course, less widely traded than others.

**(3) Where an independent, private-sector third party calculates the cash settlement price series, a designated contract market should consider the need for a licensing agreement that will ensure the designated contract market's rights to the use of the price series to settle the listed contract.**

**(i) Where an independent, private-sector third party calculates the cash settlement price series, the designated contract market should verify that the third party utilizes business practices that minimize the opportunity or incentive to manipulate the cash-settlement price series. Such safeguards may include lock-downs, prohibitions against derivatives trading by employees, or public dissemination of the names of sources and the price quotes they provide. Because a cash-settled contract may create an incentive to manipulate or artificially influence the underlying market from which the cash-settlement price is derived or to exert undue influence on the cash-settlement computation in order to profit on a futures position in that commodity, a designated contract market should, whenever practicable, enter into an information-sharing agreement with the third-party provider which would enable the designated contract market to better detect and prevent manipulative behavior.**

As described above, the cash settlement price is calculated through a cash settlement method that is not easily susceptible to manipulation.

**(ii) Where a designated contract market itself generates the cash settlement price series, the designated contract market should establish calculation procedures that safeguard against potential attempts to artificially influence the price. For example, if the cash settlement price is derived by the designated contract market based on a survey of cash market sources, the designated contract market should maintain a list of such entities which all should be reputable sources with knowledge of the cash market. In addition, the sample of sources polled should be representative of the cash market, and the poll should be conducted at a time when trading in the cash market is active.**

Please see above.

**(iii) The cash-settlement calculation should involve computational procedures that eliminate or reduce the impact of potentially unrepresentative data.**

**(iv) The cash settlement price should be an accurate and reliable indicator of prices in the underlying cash market. The cash settlement price also should be acceptable to commercial users of the commodity contract. The registered entity should fully document that the settlement price is accurate, reliable, highly regarded by industry/market agents, and fully reflects the economic and commercial conditions of the relevant designated contract market.**

Please see above.

**(v) To the extent possible, the cash settlement price should be based on cash price series that are publicly available and available on a timely basis for purposes of calculating the cash settlement price at the expiration of a commodity contract. A designated contract market should make the final cash settlement price and any other supporting information that is appropriate for release to the public, available to the public when cash settlement is accomplished by the derivatives clearing organization. If the cash settlement price is based on cash prices that are obtained from non-public sources (e.g., cash market surveys conducted by the designated contract market or by third parties on behalf of the designated contract market), a designated contract market should make available to the public as soon as possible after a contract month's expiration the final cash settlement price as well as any other supporting information that is appropriate or feasible to make available to the public.**

The various reference rates are readily available via a number of sources.

**(4) Contract terms and conditions requirements for futures contracts settled by cash settlement.**

**(i) An acceptable specification of the terms and conditions of a cash-settled commodity contract will also set forth the trading months, last trading day, contract size, minimum price change (tick size) and daily price limits, if any.**

Please see Exhibit B for the Contracts' terms and conditions.

**(A) *Commodity Characteristics*: The terms and conditions of a commodity contract should describe the commodity underlying the contract.**

The reference rates are included in the terms and conditions. As noted above, each of these rates is widely used in the market.

**(B) *Contract Size and Trading Unit*: An acceptable specification of the trading unit would be a contract size that is consistent with customary transactions in the cash market. A designated contract market may opt to set the contract size smaller than that of standard cash market transactions.**

The Contract sizes are consistent with customary transaction sizes in the market.

**(C) *Cash Settlement Procedure*: The cash settlement price should be reliable, acceptable, publicly available, and reported in a timely manner as described in paragraphs (c)(3)(iv) and (c)(3)(v) of this appendix C.**

The cash settlement procedure and an explanation of how, in the context of these Contracts, it is not readily susceptible to manipulation, is described above.

**(D) *Pricing Basis and Minimum Price Fluctuation (Minimum Tick)*: The minimum price increment (tick) should be set a level that is equal to, or less than, the minimum price increment commonly observed in cash market transactions for the underlying commodity. Specifying a futures' minimum tick that is greater than the minimum price increment in the cash market can undermine the risk management utility of the futures contract by preventing hedgers from efficiently**

**establishing and liquidating futures positions that are used to hedge anticipated cash market transactions or cash market positions.**

As agreed between counterparties.

**(E) *Maximum Price Fluctuation Limits:*** Designated contract markets may adopt price limits to: (1) Reduce or constrain price movements in a trading day that may not be reflective of true market conditions but might be caused by traders overreacting to news; (2) Allow additional time for the collection of margins in times of large price movements; and (3) Provide a “cooling-off” period for futures market participants to respond to bona fide changes in market supply and demand fundamentals that would lead to large cash and futures price changes. If price-limit provisions are adopted, the limits should be set at levels that are not overly restrictive in relation to price movements in the cash market for the commodity underlying the futures contract. For broad-based stock index futures contracts, rules should be adopted that coordinate with New York Stock Exchange (“NYSE”) declared Circuit Breaker Trading Halts (or other market coordinated Circuit Breaker mechanism) and would recommence trading in the futures contract only after trading in the majority of the stocks underlying the index has recommenced.

As agreed between counterparties.

**(F) *Last Trading Day:*** Specification of the last trading day for expiring contracts should be established such that it occurs before publication of the underlying third-party price index or determination of the final settlement price. If the designated contract market chooses to allow trading to occur through the determination of the final settlement price, then the designated contract market should show that futures trading would not distort the final settlement price calculation.

The last trading day will be the maturity date of each contract, which is set by the individual counterparties.

**(G) *Trading Months:*** Trading months should be established based on the risk management needs of commercial entities as well as the availability of price and other data needed to calculate the cash settlement price in the specified months. Specification of the last trading day should take into consideration whether the volume of transactions underlying the cash settlement price would be unduly limited by occurrence of holidays or traditional holiday periods in the cash market. Moreover, a contract should not be listed past the date for which the designated contract market has access to use a proprietary price index for cash settlement.

Payments are settled in accordance with the payment frequency of the particular contract, which is a flexible term.

**(H) *Speculative Limits:*** Specific rules and policies for speculative position limits are set forth in part 150 and/or part 151, as applicable, of the Commission's regulations.

None required by Parts 150 or 151.

**(I) *Reportable Levels:*** Refer to § 15.03 of the Commission's regulations.

tpSEF will adhere to the applicable reporting levels set forth in § 15.03 of the Commission's regulations.

Mr. Christopher J. Kirkpatrick

October 26, 2017

Page 13

**(J) *Trading Hours:* Should be set by the designated contract market to delineate each trading day.**

The Contracts are traded twenty-three hours a day from Sunday to Friday Eastern Time. The Contracts are not traded between 5:30 p.m. and 6:30 p.m. Eastern Time.

**EXHIBIT D**

**Terms and Conditions  
 (Marked Against April 29, 2016 Version)**

**Terms and Conditions**

<b>Summary:</b>	This covers <u>uncleared</u> forward rate agreements (“ <u>Forward Rate Agreements</u> ” or “FRAs”).
<b>Limitations on Available Selections and Default Settings:</b>	<p>The terms under which an FRA may be traded are as specified in these terms and conditions and in the attached tables.</p> <p>For amounts or rates, the relevant term cannot be less than the specified Minimum, must represent an even Increment and cannot exceed the Maximum; for a date, the date cannot be earlier than Earliest nor later than Latest.</p> <p>For Business Days, the defaults shall be the locations specified for the relevant currency, any additional locations specified for the relevant Floating Rate Options.</p> <p>The parties may add additional locations from the Available Locations and may eliminate some or all of the other locations, so long as there is at least one location in which payment may be made. For these purposes “TARGET”/EUTA is considered a location.</p> <p>In many cases there are normal “vanilla” terms on which the parties will transact. These are shown as “Default” and will apply unless the parties vary them.</p> <p>It should be noted that these contracts can be traded in a variety of currencies. Since each national market has its own peculiarities, the “Available Terms” and/or “Default Terms” may vary by currency.</p> <p>In some cases, the same contract might have different terms depending on the market in which it is traded (<i>e.g.</i>, London versus NY). In that case the default settings may vary by market.</p>
<b>Incorporated Standards:</b>	<p>These terms and conditions incorporate by reference the following industry standard documentation and standards:</p> <ul style="list-style-type: none"> <li>(a) 2006 ISDA Definitions</li> <li>(b) ISDA OTC Taxonomies</li> <li>(c) FpML Location Codes</li> </ul> <p>For convenience, certain terms are mapped to their FpML 5.2.4 equivalent.</p>
<b>Product Type/ISDA OTC Taxonomy:</b>	

ISDA OTC Asset Class:	Interest Rate
ISDA OTC Base Product:	FRA
ISDA OTC Sub-Product:	N/A
Further Limitations:	None
<b>Terms:</b>	
Notional Amount (“notional”):	An amount in one of the Available Currencies (see below) agreed by the parties.
Effective Date (“adjustedEffectiveDate”):	The date specified by the parties, adjusted in accordance with any applicable Business Day Convention.
Effective Date Business Day Convention:	As specified by the parties from among the Available Business Day Conventions.
Termination Date (“adjustedTerminationDate”):	The date specified by the parties, adjusted in accordance with any applicable Business Day Convention.
Termination Date Business Day Convention:	As specified by the parties from among the Available Business Day Conventions.
Fixed Rate Payer (“buyerPartyReference”):	As specified by the parties.
Fixed Rate (“fixedRate”):	As specified by the parties.
Floating Rate Payer (“sellerPartyReference”):	As specified by the parties.
Payment Date (“paymentDate”):	As specified by the parties.
Floating Rate Option (“floatingIndex”):	As specified by the parties.
Designated Maturity (“indexTenor”):	As specified by the parties.
Spread:	As specified by the parties.
Floating Rate Day Count Fraction (“dayCountFraction”):	As specified by the parties.
Reset Date:	The Effective Date.
Discounting (“fraDiscounting”):	As specified by the parties.
Business Days:	As specified by the parties.
Calculation Agent:	As specified by the parties.

## FRA Available Currencies and Required Business Days

Three Letter Currency Code (ISDA/ISO)	Currency Name (ISDA)	Basic Business Day Locations For Currency (FpML Codes)
AUD	Australian Dollar	AUSY
CAD	Canadian Dollar	CATO
CZK	Czech Koruna	CZPR
DKK	Danish Krone	DKCO
EUR	Euro	EUTA
GBP	Sterling	GBLO
HUF	Hungarian Forint	HUBU
<a href="#">ILS</a>	<a href="#">Israeli Shekel</a>	<a href="#">ILTA</a>
JPY	Japanese Yen	JPTO
NOK	Norwegian Krone	NOOS
<a href="#">NZD</a>	<a href="#">New Zealand Dollar</a>	<a href="#">NZAU and NZWE</a>
PLN	Polish Zloty	PLWA
SEK	Swedish Krona	SEST
USD	United States Dollars	USNY
ZAR	South African Rand	ZAJ0

## FRA Available Business Day Conventions

ISDA Name
Following
Modified/Modified Following
No Adjustment
Preceding

## FRA Available Day Count Fractions

ISDA Name
30/360, 360/360, Bond Basis
Actual/360
Actual/365 (Fixed), Act/365 (Fixed), A/365 (Fixed), A/365F
Actual/Actual, Actual/Actual (ISDA), Act/Act, Act/Act (ISDA)
Actual/Actual (ICMA), Act/Act, Act/Act (ICMA)
1/1

## FRA Notional Amounts

Currency	Minimum	Increment	Maximum	Default
AUD	5,000,000	100,000	N/A	N/A
CAD	5,000,000	100,000	N/A	N/A
CZK	5,000,000	100,000	N/A	N/A
DKK	5,000,000	100,000	N/A	N/A
EUR	5,000,000	100,000	N/A	N/A
GBP	5,000,000	100,000	N/A	N/A
HUF	5,000,000	100,000	N/A	N/A
<u>ILS</u>	<u>5,000,000</u>	<u>100,000</u>	<u>N/A</u>	<u>N/A</u>
JPY	500,000,000	10,000,000	N/A	N/A
NOK	5,000,000	100,000	N/A	N/A
<u>NZD</u>	<u>5,000,000</u>	<u>100,000</u>	<u>N/A</u>	<u>N/A</u>
PLN	5,000,000	100,000	N/A	N/A
SEK	5,000,000	100,000	N/A	N/A
USD	10,000,000	1,000,000	N/A	N/A
ZAR	5,000,000	100,000	N/A	N/A

## FRA Floating Rate Options and Defaults

Currency	Floating Rate Option (any from ISDA 2006 if not specified)	Available Tenors	Default Tenor	Default Day Count Fraction	Additional Business Day Locations	Default for Currency (Y/N)
AUD				Actual/360	N	
CAD						
CZK				Actual/360	N	
DKK						
EUR						
GBP						
HUF						
<u>ILS</u>	<u>ILS-</u>	<u>All quoted</u>	<u>N</u>	<u>Per ISDA 2006</u>	<u>N</u>	<u>Y</u>



Mr. Christopher J. Kirkpatrick

October 26, 2017

Page 17

	<a href="#">TELBOR01-Reuters</a>					
JPY						
NOK						
<a href="#">NZD</a>	<a href="#">NZD-BBR-FRA</a>	<a href="#">All quoted</a>	<a href="#">N</a>	<a href="#">Per ISDA 2006</a>	<a href="#">N</a>	<a href="#">Y</a>
PLN						
SEK						
USD	USD-LIBOR-BBA		3M	Actual/360	GBLO	Y
ZAR						

FRA Discounting Types

ISDA Name	FpML	Default for (Currency)
FRA Discounting	ISDA	All but AUD
FRA Yield Discounting	AFMA	AUD
None	NONE	None