Recommendation on the standard OIS transaction based on WIRON

Document of the National Working Group for benchmark reform

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(Draft)

This Recommendation has been prepared by the Financial Instruments and Valuation Stream of the National Working Group for benchmark reform based on the analyses and discussion of experts conducted until 15 October 2022. The Draft Recommendation was reviewed by other streams of the National Working Group.

The Recommendation aims to provide financial market entities with a definition of a standard OIS transaction based on the PLN WIRON index and is in the form of specification of parameters of such transaction.

The definition of a standard OIS transaction based on the PLN WIRON index is to harmonise the approach to such transactions in the professional market in relation to market quotations, post-transaction service, as well as input data used by the market participants in valuation models, risk measurement models, and other models.

This Recommendation follows the principle of using standard solutions adopted in the market practice and using terms that are understandable to market participants.

This Recommendation does not prevent market participants from applying different, individually agreed parameters of an OIS transaction, as necessary for the purpose of risk management.

Recommendation

As regards a standard OIS transaction based on the PLN WIRON index, parameters should be applied according to the following recommended specification. In particular, it is recommended that interest on the floating leg of an OIS transaction be calculated on the basis of the compounded PLN WIRON index from individual business days in the observation period which coincides with the interest period.

No	Currency	PLN
1	**Business Days Calendar**	Warsaw PLN
2	**INDEX**	[WIRON]
3	**ISDA Index Denomination**	[PLN-WIRON-OIS-COMPOUND]
4	**Floating Index Fixing time**	9:30 Warsaw Time
5	**Index Tenor (Daily only)**	1 business days
6	**Float Leg Reset Period**	1 business days
7	**Compounding (ISDA)**	Daily Compounding
8	**Effective Date**	Trade Date + 2 business days
9	**Float Leg FIRST Fixing Rate Date**	Effective date + 1 business days
10	**Payment Lag (Floating)**	2 business days
11	**Fixing Lag**	0
12	**Floating Leg Day Count Fraction**	ACT/365 (fixed)

13	**Float Leg Rate ROUNDING**	0.0001%
14	**Negative Floating Rate Reset**	Yes
15	**Fixed Leg Day Count Fraction**	ACT/365 (fixed)
16	**Negative Fixed Rate**	Yes
17	**Payment Lag (Fixed)**	2 business days
18	**Payment Frequencies (for both legs)**	Annual/Annual
19	**Business Day Convention**	Modified Following
20	**Schedule generation /Roll conv**	Backward (from end)
21	**EndOfMonth**	N

Justification

The calculation of interest on the floating leg of an OIS transaction based on the compounded RFR (PLN WIRON) from individual business days in the observation period, which coincides with the interest period, is a common convention used in professional markets in relation to derivative instruments, and represents an essence of an OIS transaction. The convention complies with, for example, the ISDA standard – OIS Compounding. No other option was considered as part of the definition under the standard.

Both the applied basis for calculating interest on both legs of an OIS transaction – ACT/365 (fixed), and the convention for setting business days – Modified Following, are the relevant standards for the money market for PLN. They are also the most common parameters for cash instruments and banking products in PLN. This is why this choice is to ensure the best possible match of the OIS convention with the convention applied to cash instruments and products.

As regards the accuracy of rounding in the calculation of an interest rate calculated for the floating leg in the market practice for other currencies, two rounding options are most common: to the one ten-thousandth and to the one hundred-thousandth, and these two options have been selected as part of the work on the Recommendation. It has been decided that in both cases, the calculations ensure sufficient accuracy, and the differences between them are irrelevant. Ultimately, the accuracy of rounding to the one ten-thousandth has been selected as a solution similar to the currently applied accuracy for OIS transactions based on the POLONIA index.

The payment lag for the fixed leg and the floating leg of an OIS transaction, determined as 2 business days, has been found by the market participants represented in the National Working Group as appropriate for operational reasons. The following lag types are used in the market practice for other currencies: 0 days (example: GBP- SONIA), 1 day (example: EUR- STR), 2 days (example: USD- SOFR). Those options have been selected. All three options are almost identical in terms of economic equivalence, so any specific selection is determined by operational aspects of transaction handling. 0 days has been considered as a period that is too short for operational reasons: the necessity of calculating and settling interest amounts on transaction maturity date. Having analysed the other two equivalent options, the 2-day payment lag has been chosen, with an indication that the option could be useful to foreign entities that operate in various time zones.

The other parameters are typical of parameters of OIS transactions applied in professional markets for other currencies and, as such, restrict the choice.

Formula for calculating floating and fixed leg payments

for a standard OIS transaction

Floating leg:

$$r_{float} = \left(\prod_{t=1}^{t=n} \left(1 + RFR_t \frac{Day\ Count_t}{Day\ Count\ Basis} \right) - 1 \right) \times \frac{Day\ Count\ Basis}{Day\ Count}$$

$$CF_{float} = N \times r_{float} \times \frac{Day\ Count}{Day\ Count\ Basis}$$

CF_{float}	Floating leg payment in a given interest period
r_{float}	Floating interest rate, rounded to the fourth decimal place
N	National of the transaction
t	Subsequent business days, where t=1 means the first day of the interest period, and t=n means the business day preceding the last day of the interest period
RFR_t	Risk-free rate on observation day *t*
$Day\ Count_t$	Actual number of calendar days between *t* and *t+1*
$Day\ Count$	Actual number of calendar days from (and including) the first day of the interest period to (and excluding) the last day of the interest period
$Day\ Count\ Basis$	The convention which determines the method for setting part of the year between two dates

Fixed leg:

$$CF_{fixed} = N \times r \times \frac{Day\ Count}{Day\ Count\ Basis}$$

CF_{fixed}	Fixed leg payment in a given interest period
N	National of the transaction
r	Fixed interest rate
$Day\ Count$	Actual number of calendar days from (and including) the first day of the interest period to (and excluding) the last day of the interest period
$Day\ Count\ Basis$	The convention which determines the method for setting part of the year between two dates

Settlement amount:

$$CF = \left|CF_{fixed} - CF_{float}\right|$$

CF	Settlement amount in a given interest period
CF_{fixed}	Fixed leg payment
CF_{float}	Floating leg payment