



Національний
банк України

Proposals for Regulating Some Aspects Related to Definition, Calculation, and Publication of Money Market and FX Market Indicators

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Issues to consider

- I. Stipulating in regulations the definition of FX market indicators
- II. Regulating the procedure of error analysis in calculation and publication of the money market and FX market indicators
- III. Introducing the publication of descriptive information (including statistical data) regarding the money market and FX market indicators.



I. Stipulating in Regulations the Definition of FX Market Indicators

Principle 1. Overall Responsibility of the Administrator

IOSCO principle for financial indicators **1. Overall Responsibility of the Administrator** states the following:

“The Administrator should retain primary responsibility for all aspects of the benchmark determination process. For example, this includes:

a) Development: The definition of the Benchmark and Benchmark Methodology

b) Determination and Dissemination: Accurate and timely compilation and publication and distribution of the Benchmark

c) Operation: Ensuring appropriate transparency over significant decisions affecting the compilation of the Benchmark and any related determination process, including contingency measures in the event of absence of or insufficient inputs, market stress or disruption, failure of critical infrastructure, or other relevant factors

d) Governance: Establishing credible and transparent governance, oversight and accountability procedures for the Benchmark determination process, including an identifiable oversight function accountable for the development, issuance and operation of the Benchmark.”

Defining the UONIA money market indicator

“UONIA shall be the indicator of value of short-term hryvnia resources provided/raised on the interbank market of Ukraine by lending and deposit deals made for overnight.”

paragraph 2 of Regulation On Calculating and Publishing the Ukrainian Overnight Index Average (UONIA), approved by NBU Board Decision No. 405 dated 16 June 2020 (as amended)

International experience in determining **FX market indicators**

Bloomberg FX Fixings

BFIX

Source:

[Bloomberg FX Fixings Methodology](#)

Bloomberg BFIX indicators are designed to create spot, forward, and non-deliverable forward (NDF) fixings of exchange rates for certain currencies and metals, as described in Annex A of this methodology. Using Bloomberg LP's data, technology, and distribution platforms (Bloomberg L.P. and, together with Bloomberg affiliates), **BFIX is provided to ensure reliable, representative, and transparent exchange rate fixings for currency and metal markets worldwide.**

WMR Spot Rates

**WMR FX
Benchmark**

Source:

[WMR Spot Rates – Market Update on Methodology Consultation](#)

WMR Spot Rate benchmarks are designed to accurately reflect the underlying FX markets for each currency at each publication throughout the global day. This is achieved by using the most relevant and representative data sources and an adequate sample of bona fide transactions in the relevant FX markets. RBSL determines which platforms provide data to be used to calculate WMR spot rates objectively, based on the quality and representativeness of the data on these platforms.

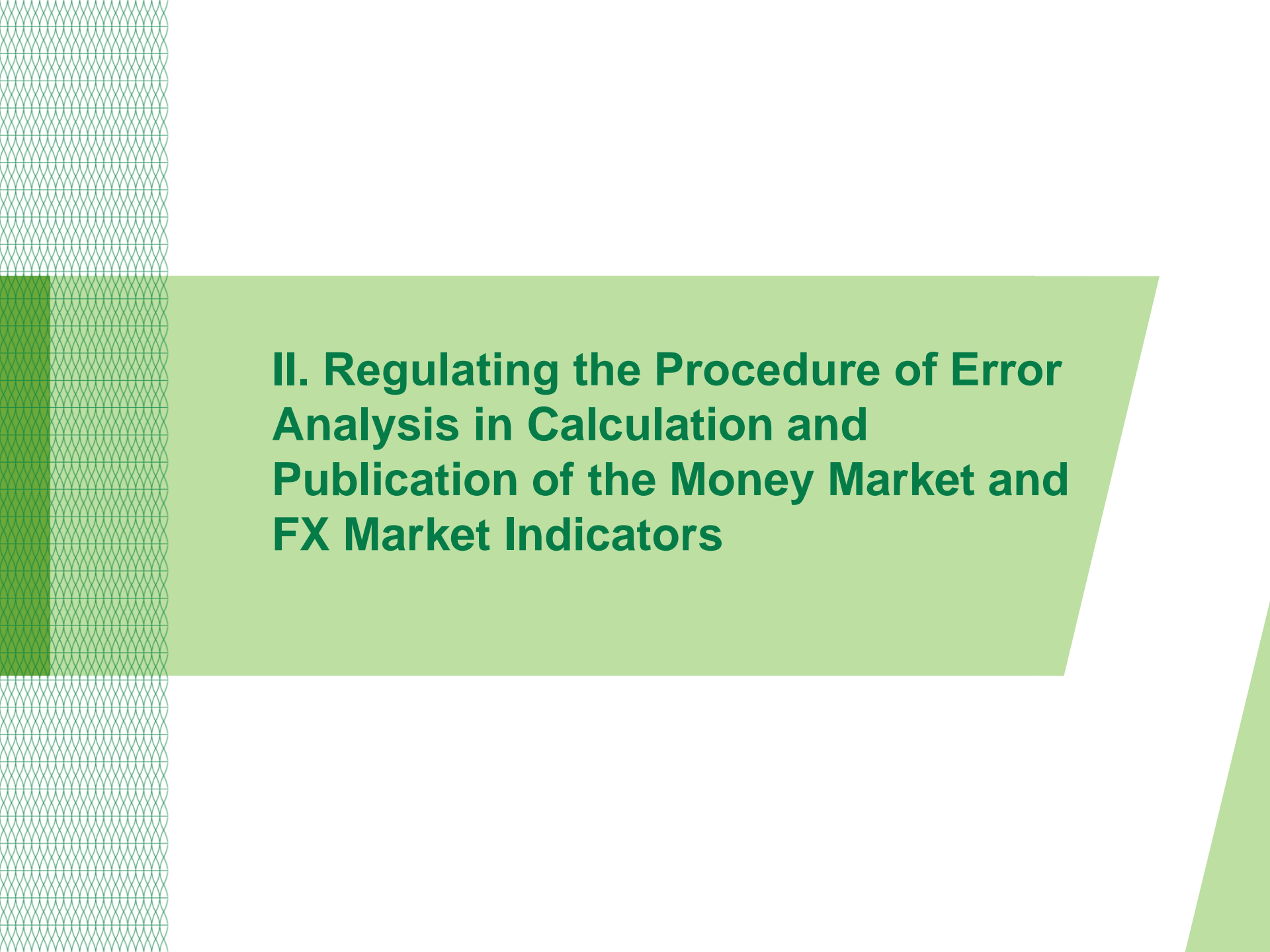
Proposals for defining **FX market indicators**

Indicator name	Definition
The official/reference UAH/USD exchange rate	the Ukrainian FX market indicators reflecting reliable, accurate, and representative average values of the UAH/USD exchange rates under transactions concluded by banks in the Ukrainian FX market on tod, tom, and spot terms with other banks and with the National Bank of Ukraine
The official hryvnia exchange rate against foreign currencies (except for the U.S. dollar) and SDRs	the Ukrainian FX market indicators reflecting reliable, accurate, and representative values of the hryvnia exchange rate against foreign currencies and SDRs, calculated using the official UAH/USD exchange rate and reliable and representative indicators of the exchange rates of these currencies and SDRs against the U.S. dollar (or the U.S. dollar to these currencies) in the spot market
The reference UAH/EUR exchange rate	the Ukrainian FX market indicator reflecting a reliable, accurate, and representative value of the UAH/EUR exchange rate, calculated using the reference value of the UAH/USD exchange rate and an accurate and representative indicator of the USD/EUR exchange rate in the spot market
The accounting prices for investment metals	the Ukrainian FX market indicators reflecting reliable, accurate, and representative values of investment metals prices, calculated using the official UAH/USD exchange rate and accurate and representative indicators of the U.S. dollar quotations against investment metals in the spot market.

Proposals for stipulating in regulations the definition of FX market indicators: *issues to be discussed*

Please share your opinion on the following:

- ✓ *The eligibility of the proposed definitions of FX market indicators, including:*
 - *the official/reference UAH/USD exchange rate*
 - *the official hryvnia exchange rate against foreign currencies (except for the U.S. dollar) and SDRs*
 - *the reference UAH/EUR exchange rate*
 - *the accounting prices for investment metals.*



II. Regulating the Procedure of Error Analysis in Calculation and Publication of the Money Market and FX Market Indicators

Principle 11. Content of the Methodology

The IOSCO* principle for financial indicators **11. Content of the Methodology** states the following:

"The Administrator should document and publish or make available the methodology used to make benchmark determinations. The Administrator should provide the rationale for adopting a particular methodology. The Published Methodology should provide sufficient detail to allow stakeholders to understand how the Benchmark is derived and to assess its representativeness, its relevance to particular stakeholders, and its appropriateness as a reference for financial instruments.

At a minimum, the methodology should contain:

...

e) The procedures for dealing with error reports, including when a revision of a Benchmark would be applicable."

**IOSCO: Principles for Financial Benchmarks Final Report July 2013.*

International experience republishing benchmarks: *money market indicators*

SONIA



☐ time the rate is published: 9 a.m.

☐ minimum error for republishing the rate: 2 bps

☐ republication deadline: 12 p.m.

☐ republication due to errors in input data: POSSIBLE

☐ reporting of errors: quarterly, for errors exceeding 0.1 bps

SOFR



☐ time the rate is published: 8 a.m./9 a.m.

☐ minimum error for republishing the rate: 1 bps

☐ republication deadline: the same day, at about 2:30 p.m.. Exigent circumstances can lead to a review of the previous day's benchmarks.

☐ republication due to errors in input data: NOT IDENTIFIED

☐ reporting of errors: no separate report available. In the event of an error, a footnote with relevant information will be published*.

€STR



☐ time the rate is published: 8 a.m.

☐ minimum error for republishing the rate: 2 bps

☐ republication deadline: 11 a.m.

☐ republication due to errors in input data: POSSIBLE

☐ reporting of errors: quarterly, for errors exceeding 0.1 bps

* from the report *An Updated User's Guide to SOFR* for February 2021 p.

Bloomberg: Real-time indexes are not considered for restatement, while others are subject to a significant degree of discretion. 11

Refinitiv: high degree of discretion, criteria are not strict.

International experience republishing benchmarks: *foreign-exchange market indicators*

- ✓ Most central banks refer to general policies on quality and reliability, but do not provide information on specific policies for dealing with errors.
- ✓ Their policies often refer to “data” in general, and most published policies on errors and revisions relate to economic data (e.g., monetary data) that cannot be compared with financial indicators.
- ✓ However, they often refer to:
 - error correction procedures: correcting errors as soon as they are detected and providing public notifications of corrections
 - data verification processes that minimize the occurrence of errors This includes using statistical analysis to detect anomalies.
 - error reporting mechanisms: channels through which users can report possible errors in published exchange rates.

Disclaimers from the BCC/SECO TA mission expert:

- It is important to distinguish between exchange rate and interest rate indicators. They have significant differences, which complicates the generalization of a single policy for dealing with errors.
- The handling of errors for exchange rate indicators remains limited due to the absence of clear general guidelines or standards for such corrections.
- As such indicators are often used for pricing and settlement of transactions, including transactions with derivatives, errors can be costly and their correction can be complex and burdensome.

Proposals regarding procedures for handling errors when calculating/releasing UONIA indicators and derived UONIA indicators

UONIA and derived UONIA indicators (publication time: 10 a.m. on the current business day)

1. **Minimum error** for republishing: **10 bps**
Deadline for republishing: **12 p.m. on the current business day.**
2. **Derived UONIA indicators*** **shall be republished** in the event of republication of UONIA.
3. **The trigger for republishing** is defined in NBU regulations that govern the procedure for calculating and publishing **UONIA and its derived indicators.**
4. In the event of republication of an indicator, a **notice about this is published** on the NBU's official website, and **the corresponding note** is recorded **in the archive table** together **with indicator value.**
5. The Oversight Council, **every six months during regular reviews of the UONIA indicator**, reviews informational reporting on all cases of publishing erroneous UONIA values if the value of the error equals or exceeds **0.1 bps.**

*Compounded UONIA index and compounded UONIA average rates

- **The BCC/SECO technical assistance mission expert noted that the probability of errors in calculating UONIA is low, given the following:**
 - ✓ Most transactions are conducted with the NBU at the key policy rate, which ensures data accuracy.
 - ✓ The NBU has high standards for control procedures.
 - ✓ The “four eyes” principle has been implemented through monitoring by two departments.
 - ✓ The methodology has been used for a long time and has not led to any errors.

Proposals regarding procedures for handling errors when calculating/releasing FX market indicators

Official/reference exchange rate (release time: 12:30 p.m./3:30 p.m.)

1. The NBU **does not take responsibility to republish FX market indicators** in the event of the publication of an erroneous value.
2. A public regulation that governs the calculation of indicators defines the NBU's right to republish an indicator **in exigent circumstances within a reasonable period of time** (republishing deadline: 1:30 p.m./4:30 p.m.).
3. The NBU's internal document defines a trigger (a minimum error equal to or exceeding UAH 0.01 that warrants republishing) whose occurrence may lead to the consideration of whether it is **feasible to republish the indicator**.
4. In the event of republication of an indicator, a **notice about this is** posted to the NBU's official website, and a relevant **entry is made in the archive table with indicator values**.
5. The Oversight Council, **every six months during regular reviews of FX market indicators**, reviews informational reporting on all cases of publishing erroneous values if the value of the error equals or exceeds **UAH 0.001**.

▪ A BCC/SECO technical assistance mission expert highlighted the following aspects of errors in calculating FX market indicators:

- ✓ The probability of errors is higher compared to UONIA, given the variable nature of the FX market, higher exchange rate volatility, and the future revision of the FX indicator calculation methodology.
- ✓ Potential damage from a UAH 0.01-sized error ≈ USD 250 to USD 1 million.
- ✓ The NBU has implemented and automated effective controls that reduce the likelihood of errors.
- ✓ Detecting and reporting an error should be as fast as possible.

General expert opinion of the BCC/SECO technical assistance mission

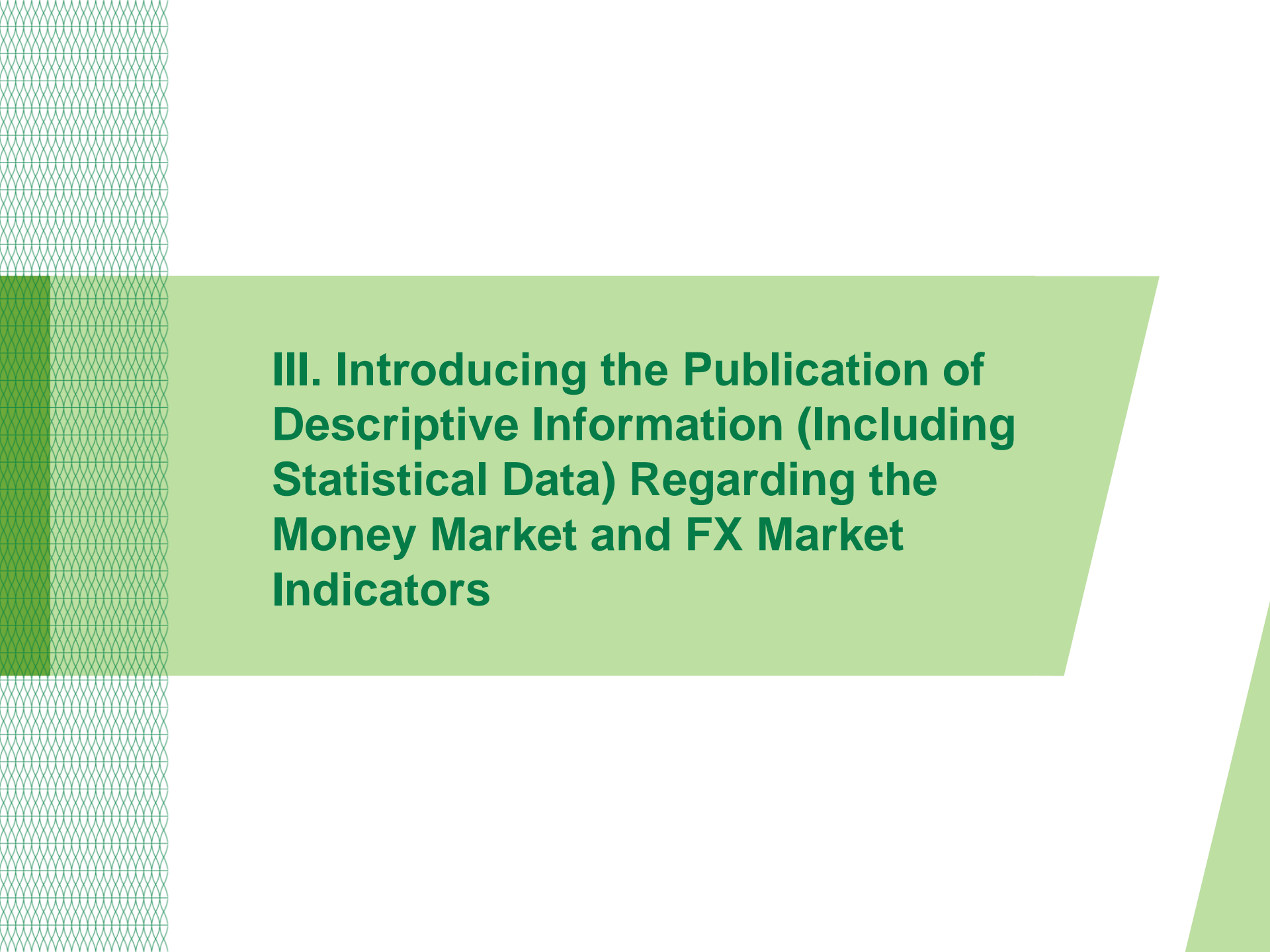
Expert conclusions of the BCC/SECO technical assistance mission

- ✓ The proposed correction policy for errors that may occur during the calculation/release of money and FX market indicators, generally complies with international standards.
- ✓ It is suitable for current conditions but may require revision in the event of changes in the market conditions.
- ✓ Given the specifics of FX market indicators, their values are not recommended for revision and republishing, and the NBU should not assume such liability. The NBU, however, should reserve the right to republish an FX market indicator only under extraordinary circumstances within a reasonable timeframe.
- ✓ Triggers for possible republication of FX market indicators may be defined only in internal (non-public) NBU documents.
- ✓ Money market indicators may be revised if an error is material for the market.
- ✓ Public regular reports on immaterial errors are unnecessary, but such errors should be reported during regular reviews at meetings of the Oversight Council.
- ✓ The NBU must ensure accessible communication channels to inform users about repeated release of money and/or FX market indicators (if such event occurs).

Proposals regarding procedures for handling errors when calculating/releasing FX and money markets' indicators (FXMMIs): *issues for discussion*

Please share your opinion on the following:

- ✓ *acceptability/advantages/disadvantages of the proposals on the procedure of error analysis in calculation and publication of the money market and FX market indicators*



III. Introducing the Publication of Descriptive Information (Including Statistical Data) Regarding the Money Market and FX Market Indicators






Principle 9: Transparency of Benchmark Determinations

- IOSCO principle for financial indicators **9. Transparency of Benchmark Determinations** defines as follows:










“The Administrator should describe and publish with each Benchmark determination, to the extent reasonable without delaying an Administrator publication deadline:

*A concise explanation, sufficient to facilitate a Stakeholder’s or Market Authority’s ability to understand how the determination was developed, including, at a minimum, **the size and liquidity of the market** being assessed (meaning the number and volume of transactions submitted), the range and average volume and range and average of price, and indicative percentages of each type of market data that have been considered in a Benchmark determination; terms referring to the pricing Methodology should be included (i.e., transaction-based, spread-based or interpolated/extrapolated);”*

International experience regarding the description of input data for the calculation of **money market** indicators

Indicator	Total value	Number of deals	Number of active banks	Number of very active banks	Rates, pp	Release/repeated release	Calculation method	Link
<u>€STR</u>	+ (before trimming)	+	+	TOP-5	25%, 75%	+	+	
<u>SONIA</u>	+ (before trimming)	-	-	-	10%, 25%, 75%, 90%	-	-	
<u>SOFR</u>	+ (after trimming)	-	-	-	1%, 25%, 75%, 99%	-	-	
<u>SORA</u>	+	-	-	-	min, max	-	+	
<u>CORRA</u>	+ (before & after trimming)	-	+	-	5%, 25%, 75%, 95%	+	+	

International experience regarding the description of input data for the calculation of **FX market** indicators

Indicator	Total value	Number of deals	Number of active banks	Number of very active banks	Rates, pp	Release/ repeated release	Calculation method*	Link
<u>BOJ FX rates</u>	+ (previous day)	-	-	-	min, "central rate", max	+	-	
<u>NBM exchange rates</u>	+ (value of euro deals)	-	-	-	last euro deal rate, average weighted euro rate	-	-	
<u>BFIX</u>	-	-	-	-	-	-	-	
<u>WMR FX Benchmarks</u>	-	-	-	-	-	-	-	
<u>Euro FX reference rates</u>	-	-	-	-	-	+	-	
<u>Fed FX rates</u>	-	-	-	-	-	-	-	
<u>BOE exchange rates</u>	-	-	-	-	-	-	-	
<u>NBP exchange rates</u>	-	-	-	-	-	-	-	
<u>CNB exchange rate fixing</u>	-	-	-	-	-	-	-	
<u>HNB exchange rates</u>	-	-	-	-	-	-	-	

**All listed indicators are calculated on the basis of average market quotations.*

The position articulated by an international expert from a technical mission supported by the Swiss State Secretariat for Economic Affairs (SECO)

Main points:

- ❑ In the expert's opinion, the NBU is very transparent regarding the calculation of FX Market Benchmark indicators, which **complies with (and exceeds) IOSCO Principle 9**.
- ❑ It was proposed to improve the compliance of FXMMIs with IOSCO Principle 9, in particular by expanding the publication of information for non-professionals.

Expert recommendations:

1) Introducing a release of **concise descriptive explanation** of how FXMMIs are calculated, its importance, and application with regard to the calculation methodology.

2) Introduce the publication (**e.g., annually**) of a **summarized report** on benchmark calculation (in accordance with Principle 9), containing information on market value and liquidity, average prices, data types, and pricing method. *(In fact, such publication already takes place based on the review findings of the Contact Group on the results of periodic indicator reviews.)*

3) Introduce daily publication of the **descriptive statistical information proposed by the Market Operations Department regarding transactions included in the calculation of FXMMIs**, but in a somewhat reduced format to avoid excessive operational burden and the risk of providing excessive information.

Descriptive statistical information on the deals included in the UONIA calculation, **which is proposed to be released daily together with the release of the indicator**

Approved with SECO mission expert

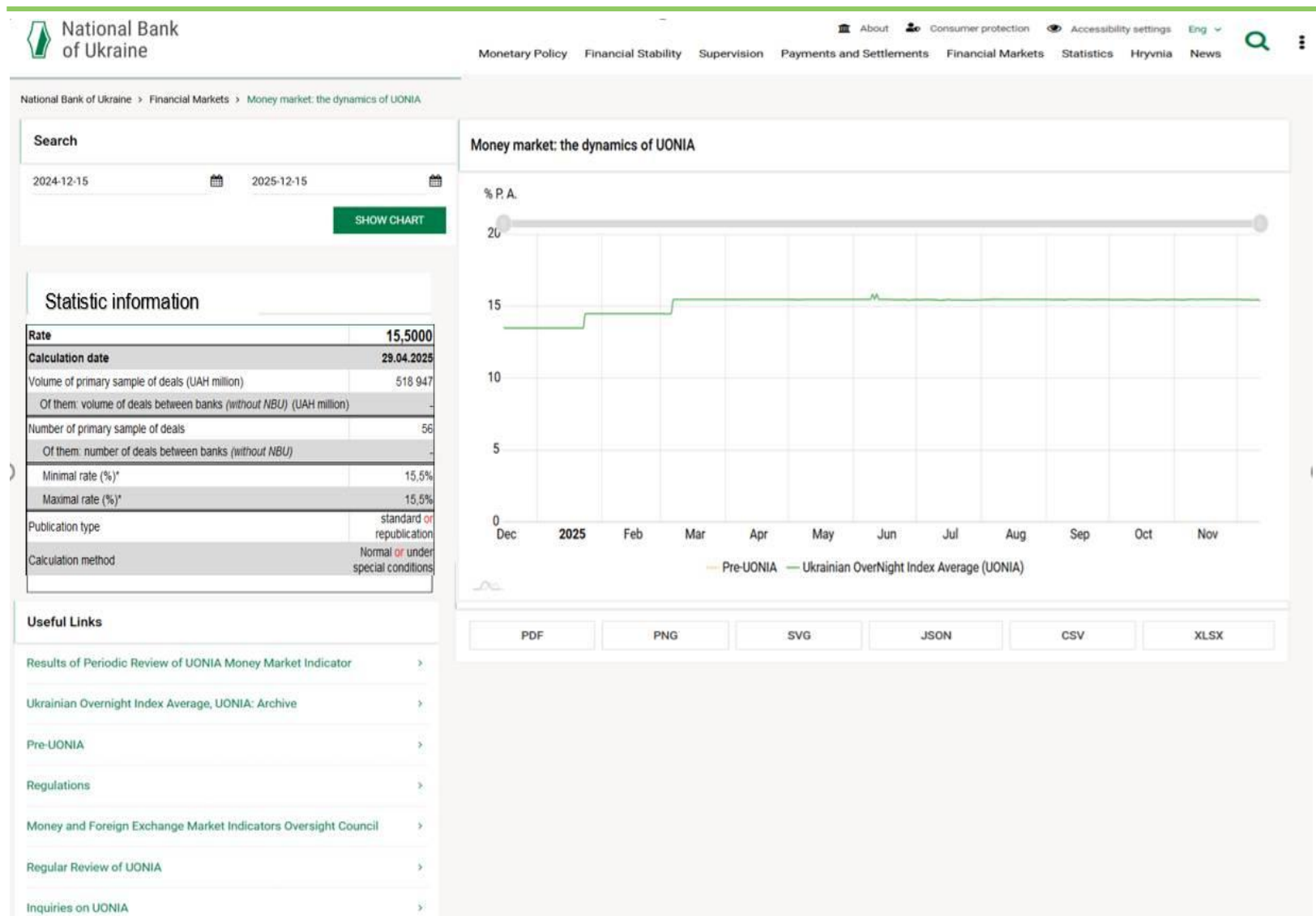
Proposed by the external members of the FXMMIs Oversight Council***

UONIA	
Indicator value	15.4860
Calculation date	27.10.2025
Deal value of baseline sample* (UAH millions)	392,616
Whereof, interbank deal value (net of NBU deals) (UAH millions)	180
Number of transactions in the primary sample	52
Whereof, interbank deal value (net of NBU deals) (UAH millions)	2
Minimum rate (%)**	15.0
Maximum rate (%)**	15.5
Calculation type	standard/under special conditions
Type of publication	regular/repeated publication
*the primary sample includes deals/aggregated deals ranging from UAH 10 to UAH 200 million.	
** primary sample of transactions.	

UONIA	
Indicator value	15.4860
Calculation date	27.10.2025
Value of deals of the baseline sample* (UAH millions)	6.430
Whereof, interbank deal value (net of NBU deals) (UAH millions)	180
Number of transactions in the baseline sample	6
Whereof, interbank deal value (net of NBU deals) (UAH millions)	2
Minimum rate (%)**	15.0
Maximum rate (%)**	15.5
Calculation type	standard/under special conditions
Type of publication	regular/repeated publication
* before the baseline sample includes transactions after cut-off	
** baseline sample of transactions.	

*** 25 June 2025

A page layout for publishing daily statistical information on the transactions included in the calculation of **UONIA** on the official NBU website



Descriptive statistical information on the deals included in calculating the **official/reference rate, which is proposed to be released daily together with the release of the indicator**

Approved with SECO mission expert

Proposed by market representatives at the meeting of the FXMM Oversight Council***

	Official USD/UAH exchange rate at 3.00 p. m.	Reference USD/UAH exchange rate at 12.00 a. m.
	41.7565	41.7672
Calculation date	20.10.2025	20.10.2025
Effective as of	21.10.2025	
Deal value of baseline sample* (UAH millions)	226,474	121,523
Number of transactions in the primary sample	342	160
Minimum rate**	41.681	41.735
Maximum rate**	41.8300	41.8300
Type of publication	regular/repeated publication	regular/repeated publication
Calculation type	standard/ under special conditions	standard/ under special conditions

*the **initial** sample includes TOD, TOM, SPOT deals for the purchase/sale of US dollars from USD 100,000 US to USD 5 million **transacted before 3.00 p.m. and before 12.00 a.m. respectively**

****primary** sample of transactions.

	Official USD/UAH exchange rate at 3.00 p. m.	Reference USD/UAH exchange rate at 12.00 a. m.
	41.7565	41.7672
Calculation date	20.10.2025	20.10.2025
Effective as of	21.10.2025	
Value of transactions in the baseline sample* (USD thousands)	220,224	120,274
Number of transactions in the baseline sample*	331	158
Minimum rate**	41.6975	41.735
Maximum rate**	41.8000	41.8000
Type of publication	regular/repeated publication	regular/repeated publication
Calculation type	standard/ under special conditions	standard/ under special conditions

* the **baseline** sample includes transactions after cut-off;

****baseline** sample of transactions.

*** 25 June 2025

A page layout for publishing daily statistical information on the transactions included in the calculation of the official/reference exchange rate on the official NBU website



Search

Currency name

Choose currency

2024-12-16

2025-12-23

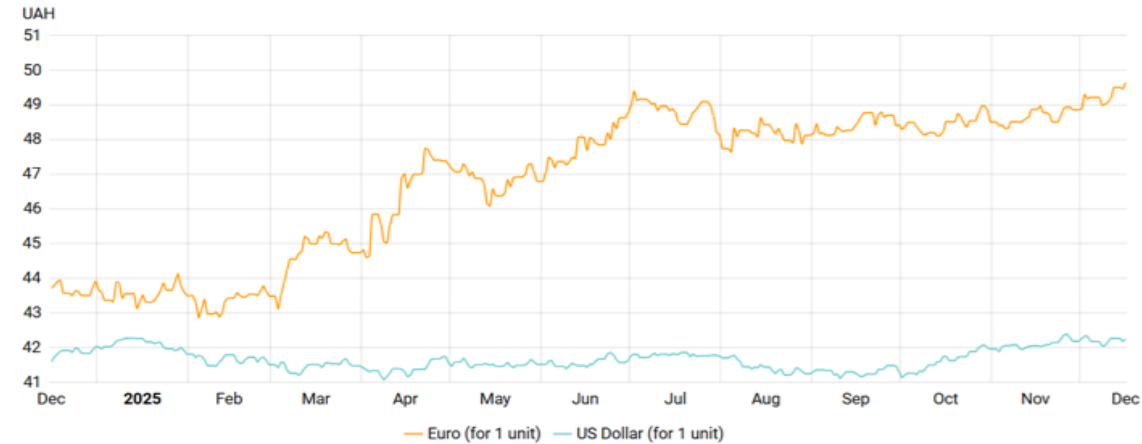
SHOW CHART

Statistic information		
	Official USD/UAH exchange rate at 3.00 p. m.	Reference USD/UAH exchange rate at 12.00 a. m.
	41.7565	41.7672
Calculation date	20.10.2025	20.10.2025
Effective as of	21.10.2025	
Value of transactions in the baseline sample* (USD thousands)	220,224	120,274
Number of transactions in the baseline sample*	331	158
Minimum rate**	41.6975	41.735
Maximum rate**	41.8000	41.8000
Type of publication	regular/repeated publication	regular/repeated publication
Calculation type	standard/ under special conditions	standard/ under special conditions

Useful Links

Official hryvnia exchange rate against foreign currencies (period average)

Official hryvnia exchange rates



The official exchange rates of the national currency of Ukraine are available from 01.06.1996: from 01.06.1996 to 09.01.1996 inclusive – Ukrainian karbovanets; from 09.02.1996 – hryvnia

Export to

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Introducing the publication of descriptive information (including statistical data) regarding the money market and FX market indicators: *issues to be discussed*

Please share your opinion on the following:

- ✓ *acceptability of the proposed approach to introducing the publication of descriptive information (including statistical data) regarding the money market and FX market indicators.*
- ✓ *advisability of publishing data on the **original** or **baseline** sample of transactions in the descriptive information*