Bloomberg FX Fixings BFIX Methodology

FX Benchmark solutions

Bloomberg

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Version Control

Material updates from previous version

Date	Update
August 2026	• Mid Logic change and rounding on Spot crosses
April 2026	• Good Friday Hours extension, and local market hours update.
July 2025	• BFIX Value Today Outrights (BFIX T+0) added.
May 2024	• BFIX Value Tomorrow Outrights (BFIX T+1) added.
March 2024	• Algorithm change – Changed the BFIX calculation to equal weights on each time slice in the window. • Commence calculation window one second earlier and end one second earlier. • Apply a calculation window of five minutes to all BFIX calculations, including FX Forwards and Precious Metals. • Clarifications made to section on Rounding. • Detailed explanation added to section on Date Alignment. • Clarifications to section on Policy on National Holidays, Local FX Market Closure and other Inactive Market Periods.
August 2023	• Algorithm change - Removed the last six seconds of each fixing window, reallocated weight to front of the window. • Updated Methodology format.
March, 2023	• Expanded BFIX universe updated. • Forwards pre-production validation.
August, 2022	• Sierra Leone ISO code SLL has been retired and replaced with SLE effective July 31, 2022. • BFIX on Belarusian Ruble (BYN) ceased from July 18, 2022, due to sustained drop in an active market.
February, 2022	• BFIX for the Russian Ruble has switched sources from BGNE to BGN until fully executable pricing resumes in the market.
November 2021	• Local market hours of Chile Peso (CLP) to close at 4:00pm from 1:30pm. • Update to Exhibit D: Holiday schedule. • Updates to chapters 2, 4, 6 and 8. • BFIX website moved to 25 minutes delay from 5 minutes delay.
November 2020	• Updated Latam NDF methodology with calculations for tenors switched to using liquidity from Points, asopposed to Outrights.
April 2020	• Updated to include ESG disclosure, Exhibit F.
May 2018	• As of Sunday May 13, 2018, the data source for 24 currency pairs changed from BGN to BGNE: Section 2.2. Update rules on future 'observed' Christmas and New Year Holidays.
November 2017	• Change to the Time Weighted Average Price ("TWAP") window for all non-G10 Spot currencies to 306 seconds. This window was previously only applied to G10 currencies, whereas non-G10 Spots carried a 906 second window. • Where a fixing cannot be produced due to inadequate input from the BFIX pricing source, the previous fixing will be carried forward. Previously, in such instances, a fixing was not provided. Specification of various factors considered in addressing errors and restatements. • Update to governance and oversight section to include certain compliance and audit procedures. Update to stakeholder engagement procedures to include periodic empaneling of advisory councils.
May 2016	• First version.

Introduction

This methodology (the "Methodology") has been made available by Bloomberg Index Services Limited ("BISL") and sets out the rules, criteria, risk factors and other information application to the Bloomberg BFIX Benchmarks (the "Indices" and each, an "Index"). Capitalized terms used in this Methodology but not otherwise defined have the meanings set forth in Exhibit B (Glossary).

Objectives and Key Features

The Bloomberg BFIX rates aim to produce Spot, Forward and Non-Deliverable Forward ("NDF") FX rate fixings for certain currencies and Metals, detailed in Exhibit A to this methodology.

Using Bloomberg LP's (Bloomberg L.P. and collectively with its affiliates "Bloomberg") data, technology, and distribution platforms, BFIX is made available with the objective of providing FX fixings that are reliable, representative, and transparent for the currency and Metals markets around the world.

The benchmark offers an unbiased source of FX data for use by market participants who need to use in, among other things, portfolio benchmarking, derivatives valuation, index construction and trade execution.

- Calculated and published every 30 minutes throughout the day when markets are open.
- Operates from 5.30pm on Sunday EST to 5pm Friday EST (see Section 3 for further details of publication hours and local market hours).
- Produces over 5,960 fixings covering over 160 core currencies against the United States Dollar, (USD), comprising of 1,475 Spot cross pairs and over 4.480 Forward and NDF fixings.
- Rates are published on the Bloomberg terminal to a dedicated screen BFIX <GO> within 15 seconds of the end of the fix for USD based Spots & Forwards and within 1 minute for others.
- BFIX can be consumed in many Bloomberg analytics and APIs and is also available via the Enterprise Data suite of services for commercial application of the benchmark. To inquire about data licenses or other questions, please contact bfixinquiry@bloomberg.net.

Benchmark Regulation:

- Administered by Bloomberg Index Services Limited ("BISL")
- UK BMR authorized benchmark administrator, regulated by the Financial Conduct Authority.
- The European Securities and Markets Authority has granted recognition to BISL as a third-country benchmarks administrator.
- Designed to be aligned with the International Organization of Securities Commissions (IOSCO) Principles for Financial Benchmarks

Section 1: Input Data

BFIX rates are based on pricing provided by the Bloomberg Executable Rates ("BGNE") and Bloomberg Generic Price ("BGN") sources.

Classification of Pricing

- Spot USD currency pairs employed by BGNE are from purely executable pricing.
- All other data is from BGN, which is a blend of executable and/or indicative pricing.
- BFIX prices several currencies that utilize a peg system and may be driven by the associated peg of that country. BFIX also has several legacy EURO currencies. Pegs and EURO legacy currencies are listed in Exhibit A.

BGNE (Bloomberg Executable rates)

The BGNE pricing source is a real-time pricing composite based purely on executable data feeds from Bloomberg's FXGO trading platform. They are received from a diverse universe of sources who provide them for the primary purpose of soliciting actual FX transactions from the market. BGNE is computed as the median average bid/offer and currently is available for Spot currency pairings only.

The following Spot USD currency pairs employ the BGNE source for pricing. Any crosses of the below will be driven by executable pricing from the underlying USD currency pair.

	Security Name	Currency pair
1	Australian Dollar	AUDUSD
2	British Pound	GBPUSD
3	Canadian Dollar	USDCAD
4	Chinese R. Yuan HK	USDCNH
5	Czech Koruna	USDCZK
6	Danish Krone	USDDKK
7	Euro	EURUSD
8	Hong Kong Dollar	USDHKD
9	Hungarian Forint	USDHUF
10	Indian Rupee	USDINR
11	Israeli Shekel	USDILS
12	Japanese Yen	USDJPY
13	Mexican Peso	USDMXN
14	New Zealand Dollar	NZDUSD
15	Norwegian Krone	USDNOK
16	Polish Zloty	USDPLN
17	Romanian Leu	USDRON
18	Singapore Dollar	USDSGD
19	South African Rand	USDZAR
20	Swedish Krona	USDSEK
21	Swiss Franc	USDCHF
22	Thai Baht	USDTHB
23	Turkish New Lira	USDTRY

BGN (Bloomberg Generic Price)
BGN prices are designed to show market-consensus bid and ask rates from a select subset of Bloomberg's FX price sources, which have met selection criteria such as pricing consistency, frequency, and quality. BGN has extensive coverage across Spot and Forwards and includes executable pricing as well as indicative where markets are less liquid.

Section 2: Calculation

Equally Weighted Average Price
A BFIX rate is calculated by taking an equally weighted average price of BGNE or BGN bid and ask prices.
This is applied using an equal weight for each time slice of the fixing window.

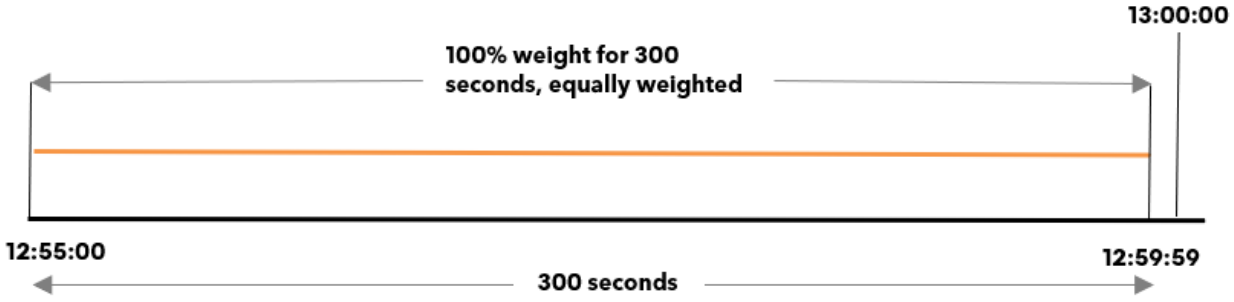
Each time slice of the fixing window is one second long. The BGNE and BGN can produce multiple prices within one second for a currency pair of which the arithmetic average is taken to produce one BGNE or BGN price for each second to be used in the BFIX window.

BFIX Window
The time frame for the window for all Spot currencies, Swap Points, Outrights and Metals will be three hundred seconds (five minutes).

- The first time slice commences at exactly five minutes and zero seconds before the BFIX time.
- The last time slice ends at one second prior to the BFIX time.

For example, a BFIX 1pm will commence the first time slice at 12:55:00 and conclude at 12:59:59.

Illustrative example of Spot BFIX



Formula
The following is the formula to calculate the BFIX price:

$$BFIX = \frac{\sum(P_s * W_s)}{\sum W}$$

$P_s = Average\ price\ in\ a\ second$

$W_s = Weight\ of\ second\ (each\ second\ is\ equally\ weighted)$

$W = Weights\ with\ an\ available\ price$

Rounding
Market convention, as represented by the history of source inputs, dictates the number of decimal places used in a fixing. To help ensure a measurable bid/ask spread, the bid is rounded down, and the ask is rounded up.
For example, an unrounded bid/ask calculation of 1.34460549 / 1.344737165 will be rounded to 1.3446/ 1.3448.

Previously the Mid was calculated using the arithmetic middle of the final rounded bid/ask rates. As of August 11, 2026, NY 5.30pm, the Mid is calculated using the unrounded value of the bid/ask rates. The unrounded Mid in the example is 1.344671328 and rounded using arithmetic logic to 1.34467.

Before the bid and ask are rounded they are truncated to one more precision of the security. If the final bid/ask of the security precision is 4, then the bid/ask are truncated to 5 before final rounding. In this example the truncated bid/ask would be 1.34460 / 1.34473. The final bid is rounded down to 1.3446 and the ask is rounded up to 1.3448. The Mid will always have one more precision than the final bid/ask.

This rounding approach applies to Spot FX, Spot Crosses, Metals, and NDF Outrights but does not apply to Latam NDFs or on Forwards, where standard arithmetic rounding applies.

Cross Calculation
All BFIX calculations are determined solely from currencies are quoted against the USD. Any other currency pair is thus cross calculated via the USD BFIX rates. This cross calculation is performed using the final BFIX rates themselves and not during the BFIX calculation window. For example, a EURJPY BFIX Spot rate will be crossed using the EURUSD BFIX rate and the USDJPY BFIX rate and not using direct EURJPY pricing. This is to avoid the issue of arbitrage triangulation. This Mid of a spot cross is the result of crossing the final published mid of the USD spots.

Date Alignment
A significant benefit to BFIX is the adoption of accurate market settlement date alignment which factors in local market holidays. BFIX will adhere to the market settlement date of the currency pair daily.

All currencies settle T+2-day settlement against the USD with the following exceptions:

Settlement	
T+0	AZN (Azerbaijan Manat), KGS (Kyrgyzstan Som), MDL (Moldova Leu), MNT (Mongolian Togrog), UAH (Ukraine Hryvnia).
T+1	CAD, KZT, PHP, TRY, UZS settle T+1 against USD, against each other, and against any currency settling T+0 against USD (see first two bullet points above).
T+1	RUB settles T+1 against all currencies except DKK, SEK, and NOK, against which RUB settles T+2.
Crosses	All other non-USD currency pairs settle on the later of the Spot settlement dates for each of the two currencies against USD.

When cross calculating a T+2 currency and a T+1 currency BFIX will adjust the T+1 pair up to T+2 by BFIX Tom/Next (T/N) Points. If the T/N Points are not available BFIX will straight line interpolate between the Spot and the next available tenor. If there are no forward tenors available on a currency, BFIX will not date align.

<u>Weekends and Market Holidays:</u>
BFIX also will adjust the standard market settlement for a currency pair when market holidays are observed and reflect the standard market settlement date for the currency pair as traded in the global Spot foreign exchange market.

- When counting forward from a given pricing date to determine the corresponding T+2, T+1, or T+0 Spot date, weekends are ignored (so, effectively Monday immediately follows Friday).
- If the Spot date (i.e., 'T') would fall on a public holiday, then the Spot date (i.e., 'T') will be the first following day that is a business in all respected calendars.
- When counting forward to determine a T+2 settlement date, any day that is a holiday in any respected calendar other than the Fed calendar is ignored just as a weekend day is ignored.

- When counting forward to determine a T+2 settlement date for a currency against USD, any day that is a Fed holiday but not a holiday in any other respected calendar is applied toward the settlement date calculation (unless Spot itself would fall on the holiday in which case see above).

Exceptions to the above treatment:

- USDMXN and USDBRL, where a Fed holiday is treated the same way a holiday in any other calendar is treated.
- USDILS, where if the first business day after the pricing date is a holiday in the ILS calendar but not a holiday in the Fed calendar, then that day is applied toward the settlement date calculation in the same way that it would be applied were it a holiday in the Fed calendar instead.

Weekend Handling for the Middle East:

- For SAR, KWD, and AED, Saturday and Sunday are treated as non-business days.
- For Thursday pricing dates, SAR settles the following Tuesday against any other currency. For SAR Thursday is treated as a business day unless it is a holiday.
- For Friday pricing dates, SAR, KWD, AED, BHD, JOD, OMR, and QAR settle the following Tuesday against any other currency.

Value Tomorrow Outright (T+1)

A value tomorrow Outright is a Spot FX deal less one business day of interest. The following USD pairs are available as BFIX T+1.

Security Name	Currency Pair	Region
Australian Dollar	AUDUSD	Asia Pacific
British Pound	GBPUSD	Europe
Czech Koruna	USDCZK	Europe
Danish Krone	USDDKK	Europe
Euro	EURUSD	Europe
Hong Kong Dollar	USDHKD	Asia Pacific
Hungarian Forint	USDHUF	Europe
Israeli Shekel	USDILS	Africa & Gulf
Japanese Yen	USDJPY	Asia Pacific
Mexican Peso	USDMXN	Americas
New Zealand Dollar	NZDUSD	Asia Pacific
Norwegian Krone	USDNOK	Europe
Offshore Deliverable CNY	USDCNH	Asia Pacific
Polish Zloty	USDPLN	Europe
Romanian Leu	USDRON	Europe
Singapore Dollar	USDSGD	Asia Pacific
South African Rand	USDZAR	Africa & Gulf
Swedish Krona	USDSEK	Europe
Swiss Franc	USDCHF	Europe
Thai Baht	USDTHB	Asia Pacific

T+1 Formula

The following is the formula to calculate the BFIX T+1 price:

$$BFIX\ T+1 = BFIX\ Spot - BFIX\ TN\ Points$$

When calculating bid and ask the following formula is used:

$$BFIX\ T+1\ Outright\ Bid = BFIX\ Spot\ Bid - BFIX\ TN\ Ask\ Points$$

BFIX T+1 Outright Ask = BFIX Spot Ask - BFIX TN Bid Points

Bloomberg BFIX T+1 'tickers' take the following format:
Example of JPY value tomorrow (T+1) Outright for Tokyo 3pm BFIX:
JPY+TOM T150 Curncy <GO>

Sources for T+1 are BGNE for Spot and BGN for TN Points.

Value Today Outright (T+0)
A value today Outright is a Spot FX deal less two business days of interest if the Spot settlement is T+2 and less one business day of interest if the Spot settlement of the currency is T+1. The following USD pairs are available as BFIX T+0.

Security Name	Currency Pair	Region
Australian Dollar	AUDUSD	Asia Pacific
British Pound	GBPUSD	Europe
Canadian Dollar	USDCAD	Americas
Czech Koruna	USDCZK	Europe
Danish Krone	USDDKK	Europe
Euro	EURUSD	Europe
Hong Kong Dollar	USDHKD	Asia Pacific
Hungarian Forint	USDHUF	Europe
Israeli Shekel	USDILS	Africa & Gulf
Japanese Yen	USDJPY	Asia Pacific
Mexican Peso	USDMXN	Americas
New Zealand Dollar	NZDUSD	Asia Pacific
Norwegian Krone	USDNOK	Europe
Offshore Deliverable CNY	USDCNH	Asia Pacific
Polish Zloty	USDPLN	Europe
Romanian Leu	USDRON	Europe
Singapore Dollar	USDSGD	Asia Pacific
South African Rand	USDZAR	Africa & Gulf
Swedish Krona	USDSEK	Europe
Swiss Franc	USDCHF	Europe
Thai Baht	USDTHB	Asia Pacific
Turkish Lira	USDTRY	Africa & Gulf

T+0 Formula (For currency with spot date T+2 settlement)
The following is the formula to calculate the BFIX T+0 price:

BFIX T+0 = BFIX Spot – (BFIX TN Points + BFIX ON Points)

When calculating bid and ask the following formula is used:

BFIX T+0 Outright Bid = BFIX Spot Bid – (BFIX TN Ask Points + BFIX ON Ask Points)

BFIX T+0 Outright Ask = BFIX Spot Ask – (BFIX TN Bid Points + BFIX ON Bid Points)

T+0 Formula (For currency with spot date T+1 settlement)
The following is the formula to calculate the BFIX T+0 price:

$$BFIX\ T+0 = BFIX\ Spot - BFIX\ ON\ Points$$

When calculating bid and ask the following formula is used:

$$BFIX\ T+0\ Outright\ Bid = BFIX\ Spot\ Bid - BFIX\ ON\ Ask\ Points$$

$$BFIX\ T+0\ Outright\ Ask = BFIX\ Spot\ Ask - BFIX\ ON\ Bid\ Points$$

Forwards
For currencies that are classed as deliverable, the BFIX will use Swap Points as the source of liquidity and the Outrights will be derived. For example, USDCAD (Canadian Dollar) 1-month:

$$BFIX\ Spot + BFIX\ Points = BFIX\ Outright$$

For Non-Deliverable Forward (NDF) defined currencies BFIX will use the outright market as the source of liquidity. Therefore, the BFIX Swap Points will be derived.
For example, USDKRW (Korean Won) 1-month BFIX NDF:

$$BFIX\ Outright - BFIX\ Spot = BFIX\ Points$$

The exception is Latam NDFs where Swap Points are the source of liquidity and BFIX will derive the Outrights.

Active Market
BFIX covers a wide range of currencies where the definition of active may vary due to local liquidity factors. For the purposes of BFIX, BISL determines an active market where at least one bid and one ask price from the relevant pricing source is received during the fixing window.

Unless predefined as a peg currency (see Exhibit A), BGN and BGNE will not be determined based on a single source.

If a price cannot be produced within a fixing window, the previous BFIX will be carried forward except for the BGNE Spot currencies and their associated crosses. If there is no activity in these BGNE Spot currencies, BISL staff will review the specific circumstances and determine a fixing in accordance with the BISL Benchmark Procedures Handbook

Carry Forward
A carry forward may occur under two distinct circumstances: (i) when there is no active market during the relevant fixing window for Spot, Forwards or Metals, or (ii) when a potential pre-publication error is identified in the input data for Forwards. In both cases, the previous BFIX will be carried forward until the market is deemed active again or the issue is investigated by BISL staff and resolved, subject to further validation.

All carry forwards are subject to post-publication review. BISL will assess whether the carry forward was appropriate. If deemed appropriate, the carry forward will be retained. If determined to have been inappropriate, the affected BFIX may be deleted or restated in accordance with BISL's Restatement Policy, as outlined in Section 4.

When local markets are closed, the Spot price is carried forward. However, the NDF market remains active. The BFIX will thus allow the NDF pricing to remain active but carry forward the derived Points or Outrights until the local Spot market opens again.

For example, USDKRW (Korean won) 1-month BFIX NDF. The Spot and BFIX Swap Points will carry forward from the local market close, but the BFIX NDF Outright will take live liquidity. Once the local market opens again the Spot is allowed to access live liquidity and the Points are derived as above.

Section 3: Publication

BFIX Coverage
BFIX operates 24 hours a day throughout the year in line with the following market hours and subject to local currency hours policy and national holidays policy below:

- First BFIX of each week will be Sunday 5:30pm New York time.
- Last BFIX of each week will be Friday 5pm New York time.

BFIX will be produced every 30 minutes on the hour and half-hour, subject to the policy on national holidays below.

Policy on National Holidays, Local FX Market Closure, and other Inactive Market Periods
The FX market is a global 24-hour-a-day market. A public holiday in a country does not necessarily mean the FX market is closed.

BFIX will not publish on the following days where liquidity is known to be significantly impacted: Christmas Day, and New Year's Day. In 2026, BISL started publishing BFIX on Good Friday up to and including Tokyo 5pm. Exhibit C lists the dates of these public holidays over the next five years.

When the local market is closed, BFIX is published by carrying forward the prior BFIX.

At other times when FX markets are inactive, and a BGN or BGNE, as relevant, is not available, BFIX is published by carrying forward the prior BFIX.

Hours of Local Currencies
There are some currencies where offshore trading does not occur or is not permitted by that country. For these currencies, BFIX will be published when the local market is open, and when closed, carry forward the closing price until the market opens again. This impacts the following currencies, with all open and close times in local market hours. The first daily calculated BFIX for these currencies will be 30 minutes after the open time.

Security Name	CODE	Open	Close
Argentine Peso	ARS	10:00am	3:00pm
Bahrain Dinar	BHD	9:00am	1:30pm
Brazilian Real	BRL	9:00am	6:00pm
Chilean Peso	CLP	8:30am	4.00pm
China Renminbi	CNY	9.30am	3.00am*
Colombian Peso	COP	8:00am	1:00pm
Egyptian Pound	EGP	8:30am	2:30pm
Indian Rupee	INR	9.00am	3:30pm
Indonesian Rupiah	IDR	9:00am	3:00pm
Kenyan Shilling	KES	8:00am	6:00pm
Kuwaiti Dinar	KWD	8:00am	2:00pm

Security Name	CODE	Open	Close
Malaysian Ringgit	MYR	8:00am	6:00pm
Omani Rial	OMR	8:00am	2:00pm
Pakistani Rupee	PKR	9:30am	5:30pm
Peru New Sol	PEN	9:00am	1:30pm
Philippine Peso	PHP	9:00am	4:00pm
Qatar Rial	QAR	8:00am	1:30pm
Saudi Arabian Riyal	SAR	9:00am	5:00pm
Taiwan Dollar	TWD	9:00am	4.00pm
UAE Dirham	AED	9:00am	3:00pm
Uruguay Peso	UYU	9:00am	3:00pm

*Next Day

Delivery Methods

Absent a disruption or failure, BFIX will be published on the Bloomberg Professional service within 15 seconds of the fixing time for USD based Spots & Forwards and within 1 minute for all others. The rates can be consumed in many Bloomberg functions and via APIs.

A select number of currencies and times for the Spot price only will be available on the Bloomberg website under a delay of 25 minutes. https://www.bloomberg.com/professional/product/indices/bfix/.

Those select currencies and times are listed in Exhibit D.

Section 4: Benchmark Oversight & Governance

Please refer to the BISL Benchmark Procedures Handbook available here[1] for the following:

- Governance Structure
- Benchmark and Methodology Changes
- Expert Judgement and Discretion
- Conflicts of Interest
- Restatement Policy
- Cessation Policy

Section 5: Risks Associated with BFIX

The following is a summary of certain risks associated with BFIX but is not meant to be an exhaustive list of all risks associated with using BFIX, an investment in currencies or Metals, or investments measured against BFIX. Though the fixings are designed to be representative of the markets they measure, they may not be representative of every use case. There is also inherent, though transparent, judgment in their construction, as outlined in this methodology. They are also designed for general applicability and not to address the individual needs of users. Bloomberg does not advise as to the usefulness of BFIX to a particular circumstance, and users are therefore encouraged to seek their own counsel for such matters.

This methodology is subject to change, which may impact its usefulness to users. Though efforts will be made to alert users of this change, not every individual user may be aware of them. Such changes may also significantly impact the usefulness of BFIX.

Bloomberg may also determine to cease publication of BFIX or a particular fixing provided by BFIX. Bloomberg maintains internal policies regarding user transitions, but there is no guarantee an adequate alternative is available generally or for a particular use case.

Markets for currencies and Metals, as with all markets, can be volatile. As BFIX is designed to measure those markets, its fixings could be materially impacted by market movements, thus significantly impacting the use or usefulness of the fixings for some or all users. Also, certain currency and Metals markets are less liquid than others, and even the most liquid markets may suffer periods of illiquidity. Illiquidity can have an impact on the quality or amount of data available to BFIX for calculation and may cause BFIX to produce unpredictable results.

BFIX is based on executable and indicative bid and ask rates which are supplied by source institutions in their discretion. While they reflect where those institutions would be willing to transact, they may not be reflective of where they transacted.

Also, while BFIX will not accept pricing from BGN that is derived from a single source, (unless predefined as a peg currency), the number of source rates with respect to a particular fixing may be relatively few at any given snapshot. However, in no event will BGN produce a price, or BFIX produce a fixing, which can be reverse engineered to an input data source.

[1] https://assets.bbhub.io/professional/sites/27/BISL-Benchmark-Procedures-Handbook.pdf

Section 6: Limitations of BFIX

Though the benchmarks are designed to be representative of the markets they measure or otherwise align with their stated objective, they may not be representative in every case or achieve their stated objective in all instances. They are designed and calculated strictly to follow the rules of this methodology, and any fixing Level or other output is limited in its usefulness to such design and calculation.

Markets for currencies, as with all markets, can be volatile, including those market interests which the benchmarks intend to measure or upon which the benchmarks are dependent in order to achieve their stated objective. For example, certain currency markets are less liquid than others, and even the most liquid markets may suffer periods of illiquidity. Illiquidity can have an impact on the quality or amount of data available to BFIX for calculation and may cause BFIX benchmarks to produce unpredictable results.

During periods of reduced liquidity, input data used in the calculation of BFIX may be less reflective of the underlying market. In such instances, the fixing may be subject to post-publication review. Where BISL determines that a published fixing was based on insufficient or erroneous input data, the fixing may be restated in accordance with BISL's Restatement Policy, as set out in the Benchmark Procedures Handbook. A record of such deletions will be disclosed on BISL's website.

In addition, market trends and changes to market structure may render the objective of the benchmarks unachievable or to become impractical to replicate by investors. As BFIX benchmarks are designed to measure those markets, its benchmarks could be materially impacted by market movements, thus significantly impacting the use or usefulness of the fixings for some or all users.

Exhibit A: List of BFIX Currencies

BFIX EUROPE								
SECURITY NAME	**Code**	**Pricing**	**SECURITY NAME**	**Code**	**Pricing**	**SECURITY NAME**	**Code**	**Pricing**
Albanian Lek Spot	ALL	BGN	Gibraltar Pound Spot	GIP	PEG	Russian Ruble SPOT (TOM)	RUB	BGN
Bosnia-Herze Convrt Mrka	BAM	PEG	Hungarian Forint Spot	HUF	BGNE	Serbian Dinar Spot	RSD	BGN
British Pound Spot	GBP	BGNE	Iceland Krona Spot	ISK	BGN	St. Helena Pound Spot	SHP	PEG
Czech Koruna Spot	CZK	BGNE	Macedonia Denar Spot	MKD	BGN	Swedish Krona Spot	SEK	BGNE
Danish Krone Spot	DKK	BGNE	Moldova Leu Spot	MDL	BGN	Swiss Franc Spot	CHF	BGNE
Euro Spot	EUR	BGNE	Norwegian Krone Spot	NOK	BGNE	Ukraine Hryvnia Spot	UAH	BGN
Falkland Is Pound Spot	FKP	PEG	Polish Zloty Spot	PLN	BGNE			
Georgia Lari Spot	GEL	BGN	Romanian Leu Spot	RON	BGNE			

BFIX AMERICAS								
SECURITY NAME	**Code**	**Pricing**	**SECURITY NAME**	**Code**	**Pricing**	**SECURITY NAME**	**Code**	**Pricing**
Argentine Peso Spot	ARS	BGN	Chilean Peso Spot	CLP	BGN	Jamaica Dollar Spot	JMD	BGN
Aruban Guilder Spot	AWG	PEG	Colombian Peso Spot	COP	BGN	Mexican Peso Spot	MXN	BGNE
Bahamas Dollar Spot	BSD	PEG	Costa Rican Colon Spot	CRC	BGN	Nicaragua Cordoba Spot	NIO	BGN
Barbados Dollar Spot	BBD	PEG	Cuban Peso Spot	CUP	PEG	Panamanian Balboa Spot	PAB	PEG
Belize Dollar Spot	BZD	PEG	Dominican Rep. Spot	DOP	BGN	Paraguay Guarani Spot	PYG	BGN
Bermudian Dollar Spot	BMD	PEG	East Caribbean Dollar	XCD	PEG	Peruvian Sol Spot	PEN	BGN
Bolivian Boliviano Spot	BOB	PEG	Ecuadorean Sucre Spot	ECS	PEG	Suriname Dollar Spot	SRD	BGN
Brazilian Real Spot	BRL	BGN	El Salvador Colon Spot	SVC	PEG	Trinidad/Tobago Dol Spot	TTD	BGN
Canadian Dollar Spot	CAD	BGNE	Guatemala Quetzal Spot	GTQ	BGN	Uruguay Peso Spot	UYU	BGN
Caribbean Guilder Spot	XCG	PEG	Haiti Gourde Spot	HTG	BGN	Venezuelan Bolivar Sober	VES	BGN
Cayman Islands Dollar	KYD	PEG	Honduras Lempira Spot	HNL	BGN			

BFIX AFRICA & GULF								
SECURITY NAME	**Code**	**Pricing**	**SECURITY NAME**	**Code**	**Pricing**	**SECURITY NAME**	**Code**	**Pricing**
Algerian Dinar Spot	DZD	BGN	Guinea-Bissau Peso Spot	GWP	PEG	Omani Rial Spot	OMR	BGN
Angolan Kwanza Spot	AOA	BGN	Israeli Shekel Spot	ILS	BGNE	Qatari Riyal Spot	QAR	BGN
Bahraini Dinar Spot	BHD	BGN	Jordanian Dinar Spot	JOD	BGN	Rwanda Franc Spot	RWF	BGN
Botswana Pula Spot	BWP	BGN	Kenyan Shilling Spot	KES	BGN	S. African Rand Spot	ZAR	BGNE
Brunei Dollar Spot	BND	PEG	Kuwaiti Dinar Spot	KWD	BGN	Saudi Riyal Spot	SAR	BGN
Burundi Franc Spot	BIF	BGN	Lebanese Pound Spot	LBP	BGN	Sierra Leone Leone Spot	SLE	BGN
CFA Franc Bceao	XOF	PEG	Lesotho Loti Spot	LSL	PEG	Tanzanian Shilling Spot	TZS	BGN
CFA Franc Beac	XAF	PEG	Malagascy Ariary Spot	MGA	BGN	Tunisian Dinar Spot	TND	BGN
Congolese Franc Spot	CDF	BGN	Malawi Kwacha Spot	MWK	BGN	Turkish Lira Spot	TRY	BGNE
Egyptian Pound Spot	EGP	BGN	Mauritania Ouguiya Spot	MRU	BGN	UAE Dirham Spot	AED	BGN
Eswatini Lilangeni Spot	SZL	PEG	Mauritius Rupee Spot	MUR	BGN	Ugandan Shilling Spot	UGX	BGN
Ethiopian Birr Spot	ETB	BGN	Moroccan Dirham Spot	MAD	BGN	Yemeni Rial Spot	YER	BGN
Gambian Dalasi Spot	GMD	BGN	Namibia Dollar Spot	NAD	PEG	Zambian Kwacha Spot	ZMW	BGN
Ghana Cedi Spot	GHS	BGN	New Mozambique Metical	MZN	BGN	Zimbabwe Gold Spot	ZWG	BGN
Guinea Franc Spot	GNF	BGN	Nigeria Naira Spot	NGN	BGN			

BFIX ASIA PACIFIC								
SECURITY NAME	**Code**	**Pricing**	**SECURITY NAME**	**Code**	**Pricing**	**SECURITY NAME**	**Code**	**Pricing**
Australian Dollar Spot	AUD	BGNE	Macau Pataca Spot	MOP	PEG	Seychelles Rupee Spot	SCR	BGN
Azerbaijan Manat New Spt	AZN	BGN	Malaysian Ringgit Spot	MYR	BGN	Singapore Dollar Spot	SGD	BGNE
Bangladesh Taka Spot	BDT	BGN	Maldives Rufiyaa Spot	MVR	BGN	Solomon Is. Dollar Spot	SBD	BGN
Bhutan Ngultrum Spot	BTN	PEG	Mongolian Togrog Spot	MNT	BGN	South Korean Won Spot	KRW	BGN
China Renminbi Spot	CNY	BGN	Myanmar Kyat Spot	MMK	BGN	Sri Lankan Rupee Spot	LKR	BGN
Comoros Franc Spot	KMF	PEG	Nepalese Rupee Spot	NPR	PEG	Taiwan Dollar Spot	TWD	BGN
Fiji Dollar Spot	FJD	BGN	New Zealand Dollar Spot	NZD	BGNE	Thai Baht Spot	THB	BGNE
Hong Kong Dollar Spot	HKD	BGNE	Offshore Deliverable CNY	CNH	BGNE	Tonga Pa'Anga Spot	TOP	BGN
Indian Rupee Spot	INR	BGNE	Pacific Island Franc	XPF	PEG	Uzbekistan Sum Spot	UZS	BGN
Indonesian Rupiah Spot	IDR	BGN	Pakistani Rupee Spot	PKR	BGN	Vanuatu Vatu Spot	VUV	BGN
Japanese Yen Spot	JPY	BGNE	Papua N.G. Kina Spot	PGK	BGN	Vietnamese Dong Spot	VND	BGN
Kazakhstan Tenge Spot	KZT	BGN	Philippines Peso Spot	PHP	BGN			
Kyrgyzstan Som Spot	KGS	BGN	Samoa (West) Tala Spot	WST	BGN			

BFIX LEGACY EURO								
SECURITY NAME	**Code**	**Pricing**	**SECURITY NAME**	**Code**	**Pricing**	**SECURITY NAME**	**Code**	**Pricing**
Andorran Peseta Spot	ADP	PEG	Finnish Markka Spot	FIM	PEG	Luxembourg Franc Spot	LUF	PEG
Austrian Schilling Spot	ATS	PEG	French Franc Spot	FRF	PEG	Maltese Lira Spot	MTL	PEG
Belgian Franc Spot	BEF	PEG	German Mark Spot	DEM	PEG	Portuguese Escudo Spot	PTE	PEG
Bulgarian Lev Spot	BGN	PEG	Greek Drachma Spot	GRD	PEG	Slovakia Koruna Spot	SKK	PEG
Croatian Kuna Spot	HRK	PEG	Irish Punt Spot	IEP	PEG	Slovenia Tolar Spot	SIT	PEG
Cypriot Pound Spot	CYP	PEG	Italian Lira Spot	ITL	PEG	Spanish Peseta Spot	ESP	PEG
Dutch Guilder Spot	NLG	PEG	Latvian Lats Spot	LVL	PEG	Euro. Curr. Unit Spot	XEU	PEG
Estonian Kroon Spot	EEK	PEG	Lithuanian Litas Spot	LTL	PEG			

BFIX METALS		
SECURITY NAME	**Code**	**Pricing**
Gold Spot $/Oz	XAU	BGN
Palladium Spot $/Oz	XPD	BGN
Platinum Spot $/Oz	XPT	BGN
Silver Spot $/Oz	XAG	BGN
Hong Kong Gold $/Oz	HAU	BGN

Exhibit B: Glossary

Active market
An active market is one in which Bloomberg has received at least one bid and ask price in the fixing window.

Ask
The rate at which a market maker is willing to sell the base currency or metal. Also known as an offer.

Bid
The price at which the market maker is willing to buy the base currency or metal.

Bloomberg Executable Rates (BGNE)
A representative price based on executable data feeds from Bloomberg's FXGO trading platform, published by Bloomberg L.P.

Bloomberg Generic Price (BGN)
A representative price based on executable and indicative rates sourced from participants in the applicable market, published by Bloomberg L.P.

Executable
As opposed to an indicative quote, an executable quote could be dealt on.

Forward
The foreign exchange rate on a date in the future.

FX
Foreign Exchange

G10 currencies
AUD, CAD, CHF, DKK, EUR, GBP, JPY, NOK, NZD, and SEK.

Indicative
A market maker's provided quote indicating where it would be willing to transact but is not obliged to transact at the price. Also known as 'not firm'.

Market maker
A firm or trader that is making a bid and an ask price to the market to trade on and take on the risk associated with the trade.

NDF
Means 'Non-deliverable Forward', which are contracts that involve no exchange of principal, are fixed at a pre-determined price, and are typically settled in USD (or sometimes, in the case of Eastern Europe, in EUR) at the prevailing Spot exchange rate taken from an agreed source, at an agreed time, on an agreed future date.

Outrights
A forward that locks in the price at which a currency can be bought or sold on a future date. Also known as 'Forward Outright'. Also appears as 'FX Outrights'.

Spot or Spot rate
The foreign exchange rate on the settlement date.

Swap Points
The annualized percentage premium or discount that the forward outright (all-in rate) represents over the current Spot rate.

Exhibit C: Schedule of Days BFIX will not Operate

BFIX will price on Good Friday up to and including Tokyo 5pm.

BFIX will not price on Christmas Day or New Year's Day where such days fall on a Monday to Friday.

- Where Christmas Day and New Year's Day fall on a Saturday, the U.S. National observed holiday will fall on the preceding Friday. However, on such days, the Fedwire remains open, FX markets will be open, and BFIX will price.
- Where Christmas Day and New Year's Day fall on a Sunday, then the holiday is observed on the Monday. The Fedwire is closed and BFIX will not price.

As an example, in 2027 and 2032 Christmas Day falls on a Saturday, and BFIX will price on the preceding Friday, December 24, 2027 and December 24 2032

Days where BFIX will not be published are shown in the table below, where Good Friday closes after Tokyo 5pm

Date	Day	Holiday
2026		
January 1	Thursday	New Year's Day
April 3	Friday	Good Friday*
December 25	Friday	Christmas Day
2027		
January 1	Friday	New Year's Day
March 26	Friday	Good Friday*
2028		
April 14	Friday	Good Friday*
December 25	Monday	Christmas Day
2029		
January 1	Monday	New Year's Day
March 30	Friday	Good Friday*
December 25	Tuesday	Christmas Day
2030		
January 1	Tuesday	New Year's Day
April 19	Friday	Good Friday*
December 25	Wednesday	Christmas Day
2031		
January 1	Wednesday	New Year's Day
April 11	Friday	Good Friday*
December 25	Thursday	Christmas Day
2032		
January 1	Thursday	New Year's Day
March 26	Friday	Good Friday*

* BFIX will price on Good Friday up to and including Tokyo 5pm

Exhibit D: Currencies Available on the Public Website (25min delay)

The below list of currencies is a subset of BFIX rates and fixing times are available for reference purposes only, on the BFIX public website which can be found here

Website BFIX Currencies against EUR					
SECURITY NAME	**Code**	**SECURITY NAME**	**Code**	**SECURITY NAME**	**Code**
Australian Dollar Spot	AUD	Hungarian Forint Spot	HUF	Romanian Leu Spot	RON
Brazilian Real Spot	BRL	Indian Rupee Spot	INR	Russian Ruble SPOT (TOM)	RUB
British Pound Spot	GBP	Indonesian Rupiah Spot	IDR	South African Rand Spot	ZAR
Bulgarian Lev Spot	BGN	Japanese Yen Spot	JPY	Singapore Dollar Spot	SGD
Canadian Dollar Spot	CAD	Malaysian Ringgit Spot	MYR	South Korean Won Spot	KRW
Croatian Kuna Spot	HRK	Mexican Peso Spot	MXN	Swedish Krona Spot	SEK
Czech Koruna Spot	CZK	New Zealand Dollar Spot	NZD	Swiss Franc Spot	CHF
Danish Krone Spot	DKK	Norwegian Krone Spot	NOK	Thai Baht Spot	THB
Hong Kong Dollar Spot	HKD	Philippines Peso Spot	PHP	Turkish Lira Spot	TRY

Website BFIX Currencies against CAD					
SECURITY NAME	**Code**	**SECURITY NAME**	**Code**	**SECURITY NAME**	**Code**
Australian Dollar Spot	AUD	Malaysian Ringgit Spot	MYR	Singapore Dollar Spot	SGD
Brazilian Real Spot	BRL	Mexican Peso Spot	MXN	South Korean Won Spot	KRW
British Pound Spot	GBP	New Zealand Dollar Spot	NZD	Swedish Krona Spot	SEK
China Renminbi Spot	CNY	Norwegian Krone Spot	NOK	Swiss Franc Spot	CHF
Hong Kong Dollar Spot	HKD	Peruvian Sol Spot	PEN	Taiwan Dollar Spot	TWD
Indian Rupee Spot	INR	Russian Ruble SPOT (TOM)	RUB	Thai Baht Spot	THB
Indonesian Rupiah Spot	IDR	South African Rand Spot	ZAR	Turkish Lira Spot	TRY
Japanese Yen Spot	JPY	Saudi Riyal Spot	SAR		

Website BFIX Currencies against USD					
SECURITY NAME	**Code**	**SECURITY NAME**	**Code**	**SECURITY NAME**	**Code**
Australian Dollar Spot	AUD	Hong Kong Dollar Spot	HKD	Polish Zloty Spot	PLN
British Pound Spot	GBP	Hungarian Forint Spot	HUF	S. African Rand Spot	ZAR
Canadian Dollar Spot	CAD	Israeli Shekel Spot	ILS	Singapore Dollar Spot	SGD
Czech Koruna Spot	CZK	Japanese Yen Spot	JPY	Swedish Krona Spot	SEK
Danish Krone Spot	DKK	Mexican Peso Spot	MXN	Swiss Franc Spot	CHF
Euro Spot	EUR	New Zealand Dollar Spot	NZD	Thai Baht Spot	THB
Gold Spot $/Oz	XAU	Offshore Deliverable CNY	CNH	Turkish Lira Spot	TRY

Website times (Local city times)					
City	**Time**	**City**	**Time**	**City**	**Time**
Beijing	09:30	Seoul	14:00	London	16:00
Singapore / Kuala Lumpur	11:00	Tokyo	15:00	Ottawa	12:00
Manila	11:30	Mumbai	12:00	New York	12:30
Jakarta / Bangkok	11:00	Frankfurt	14:00	New York	17:00

Exhibit E: Environmental, Social and Governance Disclosure

Explanation of how ESG factors are reflected in the key elements of the benchmark methodology	
1. Name of the benchmark administrator.	*Bloomberg Index Services Limited ("BISL")*
2. Type of benchmark	*Other Benchmark*
3. Name of the benchmark or family of benchmarks.	*Bloomberg Fixings ("BFIX")*
4. Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?	No
5. If the response to (4) is positive, please list below those ESG factors that are taken into account in the benchmark methodology. Please explain how those ESG factors are used for the selection, weighting or exclusion of underlying assets.	
a) List of environmental factors considered: *N/A*	Selection, weighting or exclusion: *N/A*
b) List of social factors considered: N/A	Selection, weighting or exclusion: *N/A*
c) List of governance factors considered: *N/A*	Selection, weighting or exclusion: *N/A*
6. Data and standards used.	
a) Data input. (i) Describe whether the data are reported, modelled or, sourced internally or externally. (ii) Where the data are reported, modelled or sourced externally, please name the third party data provider.	*N/A*
b) Verification of data and guaranteeing the quality of those data. Describe how data are verified and how the quality of those data is ensured.	*N/A*
c) Reference standards Describe the international standards used in the benchmark methodology.	*N/A*
Information as of:	August 2026

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