



Hong Kong Monetary Authority

Exchange Fund Bills and Notes Indicative Pricings

Reference Manual

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Background

The HKMA began publishing indicative price data for Exchange Fund Bills and Notes (EFBN) in December 2002. Reuters was appointed as the Calculator of the Indicative Pricings.

Set out in this Reference Manual are the main features of the Indicative Pricings scheme, the daily operating procedures and the contingency arrangements.

Number of pricings per day

There will be two sets of Indicative Pricings each day. There will be a set of indicative prices for market quotes on benchmark issues as at 11:00 am, to be calculated and published by 11:30 am on every working day from Monday to Friday.

A set of closing reference prices for the benchmarks as at 4:00 pm will also be calculated and published by 4:30 pm, following the same procedures and methodology as those employed for the Indicative Pricings at 11:00 am.

Benchmark tenors

1-week, 1-month, 3-month, 6-month, 9-month and 12-month Exchange Fund Bills (EFB)

2-year, 3-year, 5-year, 7-year and 10-year Exchange Fund Notes (EFN) and any other tenors specified by the HKMA

Even though the HKMA ceased issuance of EFN of tenor of 3 years and above starting from 2015, contributors are still required to provide quotes for designated tenors of three years and above in order to facilitate calculation of indicative prices for outstanding EFN issues.

Selection and announcement of benchmark issues

Specific EFBN issues will be selected to represent the benchmark tenors from time to time according to the following rules:

Benchmark tenors with regular tenders

The benchmark for 3-, 6- and 12-month EFB, and for 2-year EFN will be switched following the regular tender of 91-day, 182-day and 364-day EFB, and 2-year EFN respectively. The EFB or EFN tendered will start to serve as a benchmark in the afternoon of the tender day, i.e. the EFB or EFN tendered will be quoted as benchmark for the Closing Reference starting from the tender day and for the Indicative Pricings at 11:00 am starting from the issue day.

Benchmark tenors without regular tenders

91-day EFB with remaining maturity (on settlement day basis) closest to but not less than 7 and 30 days will start to serve as the 1-week and 1-month EFB benchmark respectively in the afternoon of the last working day of each week, i.e. the relevant EFB will be quoted as benchmarks for the Closing Reference starting from the last working day of the week and for the Indicative Pricings at 11:00 am starting from the first working day of the following week.

The benchmark issue for 9-month EFB will be switched on the tender day of the 364-day EFB. An existing 364-day EFB with remaining maturity (on settlement day basis) closest to but not less than 273 days will start to serve as the 9-month EFB benchmark in the afternoon of the tender day of the 364-day EFB, i.e. the EFB will be quoted as benchmark for the Closing Reference starting from the tender day and for the Indicative Pricings at 11:00 am starting from the issue day of the 364-day EFB.

The benchmark issue for 3-year EFN will be switched on the first working day of March, June, September and December. Existing EFN issues with remaining maturity (on settlement day basis) closest to but not less than 3 years will start to serve as the 3-year EFN benchmark in the morning of the first working day of March, June, September and December, i.e. the relevant EFN issue will be quoted as benchmark for the Indicative Pricings at 11:00 am and Closing Reference starting from the first working day of March, June, September and December.

The benchmark issue for 5-, 7-, and 10-year EFN will be switched on the first working day of June and December. Existing EFN issues with remaining maturity (on settlement day basis) closest to but not less than 5, 7 and 10 years respectively will start to serve as the respective 5-, 7- and 10-year EFN benchmarks in the morning of the first working day of June and December, i.e. the relevant EFN issues will be quoted as benchmarks for the Indicative Pricings at 11:00 a.m. and Closing Reference starting from the first working day of June and December.

For ease of reference, the timing and frequency of switching benchmarks, and the issues to be assigned as benchmarks are depicted in Table 1 (for EFB) and Table 2 (for EFN) below.

Table 1: Switching of benchmark EFB issues

	Benchmark tenors for EFB					
	1-week	1-month	3-month	6-month	9-month	12-month
Indicative Pricings at 11:00 am	1 st working day of the week		Issue day of the respective EFB		Issue day of 364-day EFB	
Closing Reference at 4:00 pm	Last working day of the week		Tender day of the respective EFB		Tender day of 364-day EFB	
Issues to be assigned as benchmarks	Existing 91-day EFB of remaining maturity:		New issue of 91-day EFB	New issue of 182-day EFB	Existing 364-day EFB of remaining maturity closest to but not less than 273 days	New issue of 364-day EFB
	closest to but not less than 7 days	closest to but not less than 30 days				
Frequency of switching	Weekly		Weekly	Bi-weekly	Once every 4 weeks	

Table 2: Switching of benchmark EFN

	Benchmark tenors for EFN				
	2-year	3-year	5-year	7-year	10-year
Indicative Pricings at 11:00 am	Issue day of the respective EFN	The first working day of Mar, Jun, Sep and Dec	The first working day of June and December	The first working day of June and December	The first working day of June and December
Closing Reference at 4:00 pm	Tender day of the respective EFN	The first working day of Mar, Jun, Sep and Dec	The first working day of June and December	The first working day of June and December	The first working day of June and December
Issues to be assigned as benchmarks	New issue of the respective EFN	Existing EFN with remaining maturity closest to but not less than 3 years	Existing EFN with remaining maturity closest to but not less than 5 years	Existing EFN with remaining maturity closest to but not less than 7 years	Existing EFN with remaining maturity closest to but not less than 10 years
Frequency of switching	Quarterly		Half-yearly		

Advance notification of benchmark switching

The HKMA will update the set of benchmark issues to be used for the Indicative Pricings at 9:00 am on the relevant Reuters pages. Any change to existing benchmark issues will be announced one week in advance.

Basis of Indicative Pricings

The Indicative Pricings of EFB and EFN are calculated on a mid-yield and mid-price basis respectively. Nevertheless, for the EFN, the Calculator will compute the corresponding annualised yield-to-maturity based on the respective indicative mid-prices.

Daily schedule for inputting quotes and publishing of the Indicative Pricings

Contributors will input their indicative bid and ask quotes for individual benchmark EFBN issues through the channels pre-arranged with the Calculator within specific time slot during the day for computing the Indicative Pricings. The yields/prices submitted by contributors should be market rates as at 11:00 am and 4:00 pm.

For the Indicative Pricings at 11:00 am, the contributors will input their quotes before 11:15 am and the indicative prices will be calculated and published by 11:30 am.

For the Closing Reference at 4:00 pm, the contributors will input their quotes before 4:15 pm and the indicative prices will be calculated and published by 4:30 pm.

Daily surveillance by the HKMA

The contributors are free to contribute their indicative bid and ask quotes for the benchmark EFBN issues. Nevertheless, to make the Indicative Pricings less vulnerable to apparent errors or biases, the HKMA will monitor the quotes contributed by the contributors before the indicative prices are calculated and released to the market.

As individual contributors begin to contribute their quotes for the calculation of indicative prices, their quotes will be made immediately visible at the Calculator's terminal located at the HKMA. If the HKMA detects any apparent error or bias in the quotes, e.g. wrong big figures, the HKMA will immediately notify the Calculator to remind the relevant contributors to review the correctness of their quotes. Nevertheless, the contributors concerned will not be obliged to revise their quotes if they consider their quotes to be appropriate. The HKMA will review regularly with the Calculator the quality of the quotes contributed by individual market makers to identify whether any market makers consistently submit off-market quotes, and will discuss the situations with the market makers concerned.

Calculation of Indicative Prices

The indicative prices for each of the benchmarks is derived as the arithmetic mean of the middle 8 quotes from the contributors, after excluding the two highest and the two lowest quotes.

The indicative mid-yields for EFB and the indicative mid-prices for EFN calculated will be rounded up to the 2nd decimal place. The yield for the benchmark EFN to be derived from the rounded indicative price will be rounded up to the 3rd decimal place.

After all contributors have submitted their indicative bid and ask quotes for benchmark EFBN issues, the indicative prices will be calculated and published by 11:30 am and 4:30 pm each day.

Indicative price and yield of the Off-the-run EFBN issues

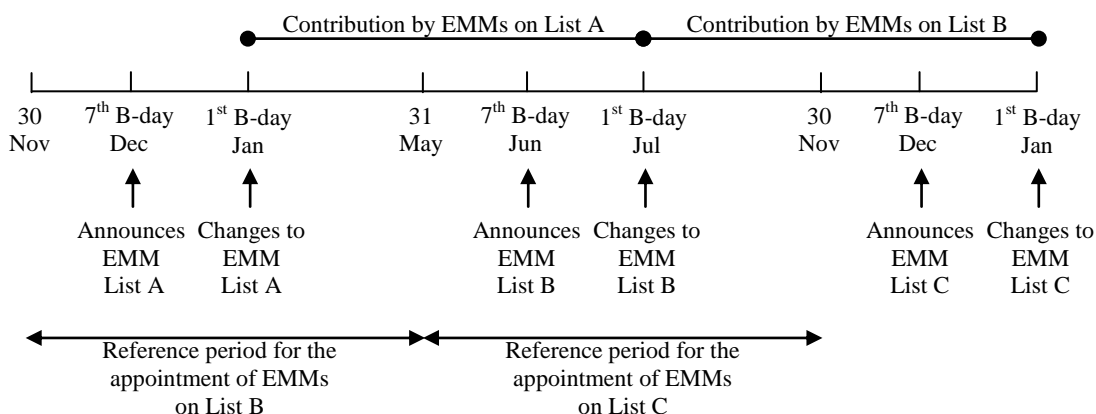
Based on the indicative mid-yields of the benchmark EFBs and the yields of EFNs derived from the indicative mid-prices of the benchmark EFNs, the Calculator will calculate and publish indicative mid-yield and mid-price for off-the-run EFBs and EFNs respectively through linear interpolation. The interpolated yield for the off-the-run EFNs will, in turn, be used for calculating the price of the respective EFNs.

Appointment, announcement and switching of contributors

Under the Exchange Fund Bills and Notes Programme, the HKMA will select 12 MMs in the two respective markets every six months and invite them to participate in tenders exclusively for the following six months as eligible market makers (EMMs). The EMMs for EFB/EFN will be required to contribute to the respective Indicative Pricings process of EFB/EFN. The two lists of EMMs (one for EFB and one for EFN) will be announced on the 7th business day of June and December and the updated lists will take effect on the 1st business day of July and January respectively for the six months following.

The HKMA will issue letters to the EMMs and to the Calculator of the Indicative Pricings to initiate the logistic arrangements. The updated list will also be published on the HKMA’s website (Sub-section on Exchange Fund Bills and Notes Indicative Pricings).

Diagrammatically, the announcement of the updated list, the effective date for the change of contributors and contribution period of each batch of appointed contributors (EMMs) could be depicted as: -



(Note: B-day denotes business day)

Contingency arrangements

Typhoon procedures

If a No.8 typhoon signal is hoisted at or before 11:00 am on a working day from Monday to Friday and not lowered at or before 12:00 noon, there will be no Indicative Pricings for that day.

If a No.8 typhoon signal is hoisted at or before 11:00 am on a working day from Monday to Friday and lowered at or before 12:00 noon, the Indicative Pricings at 11:00 am will be postponed to 2:30 pm on that day. The Closing Reference will be calculated as usual at 4:30 pm.

If a No.8 typhoon signal is hoisted at or before 11:00 am on a working day from Monday to Friday and lowered at or before 12:00 noon on that day but subsequently raised again prior to 2:30 pm, there will be no Indicative Pricings for that day.

If a No.8 typhoon signal is hoisted after 11:00 am on a working day from Monday to Friday, by which time the Indicative Pricings will have been calculated, and not lowered at or before 12:00 noon, there will be no Closing Reference for that day.

If a No.8 typhoon signal is hoisted after 11:00 am on a working day from Monday to Friday, by which time the Indicative Pricings will have been calculated, and lowered at or before 12:00 noon, the Closing Reference will be calculated as usual at 4:30 pm.

Rainstorm procedures

If a black rainstorm warning is issued before 9:00 am on a working day from Monday to Friday and not withdrawn at or before 12:00 noon, there will be no Indicative Pricings for that day.

If a black rainstorm warning is issued before 9:00 am on a working day from Monday to Friday and withdrawn at or before 12:00 noon, the Indicative Pricings at 11:00 am will be postponed to 2:30 pm on that day. The Closing Reference will be calculated as usual at 4:30 pm.

If a black rainstorm warning is issued before 9:00 am on a working day from Monday to Friday and withdrawn at or before 12:00 noon but a No.8 typhoon signal is issued prior to 2:30 pm, there will be no Indicative Pricings for the day.

For ease of reference, the contingency arrangements under different typhoon and black rainstorm scenarios are summarised in the matrix below:

Possible combinations of No.8 typhoon signal and black rainstorm		Black Rainstorm warning		
		Not issued OR Issued after 9:00 am	Issued before 9:00 am and withdrawn at or before 12:00 noon	Issued before 9:00 am and not withdrawn at or before 12:00 noon
No.8 ¹ Typhoon Signal	Not hoisted	Indicative Pricings to be calculated as usual at 11:30 am and 4:30 pm respectively	Indicative Pricings at 11:00 am postpones to 2:30 pm, Closing Reference to be calculated as usual at 4:30 pm	No Indicative Pricings for the day
	Hoisted at or before 11:00 am and lowered ² at or before 12:00 noon	Indicative Pricings at 11:00 am postpones to 2:30 pm, Closing Reference to be calculated as usual at 4:30 pm	Indicative Pricings at 11:00 am postpones to 2:30 pm, Closing Reference to be calculated as usual at 4:30 pm	
	Hoisted at or before 11:00 am and not lowered ² at or before 12:00 noon	No Indicative Pricings for the day	No Indicative Pricings for the day	
	Hoisted at or before 11:00 am and lowered ² at or before 12:00 noon, but hoisted again before 2:30 pm	No Indicative Pricings for the day	No Indicative Pricings for the day	
	Hoisted after 11:00 am and lowered ² at or before 12:00 noon	Indicative Pricings at 11:00 am already calculated at 11:30 am Closing Reference to be calculated as usual at 4:30 pm	Indicative Pricings at 11:00 am postpones to 2:30 pm Closing Reference to be calculated as usual at 4:30 pm	
	Hoisted after 11:00 am and not lowered ² at or before 12:00 noon	Indicative Pricings at 11:00 am already calculated at 11:30 am No Closing Reference for the day	No Indicative Pricings for the day	

Note 1: Or a higher number signal

Note 2: When typhoon signal is lowered below No.8 in case a higher signal has been hoisted.

Missing quotes from individual contributors

The Calculator will consult the HKMA about whether to proceed with the calculation of the indicative prices if the number of quotes for individual benchmarks falls short of 12 when the indicative prices are due to be calculated and published. To ensure that the availability of the indicative prices will not be easily jeopardised by missing quotes from individual contributors while ensuring the indicative prices calculated are of reasonable quality, the Calculator will proceed with the Indicative Pricings if the number of quotes is not less than 10.

In case only 11 quotes are available, the lowest 2 and the highest quotes will be excluded. In case only 10 quotes are available, the lowest and the highest quotes will be excluded.

Retirement of contributors

If an EMM retires during its term, the HKMA will appoint another EMM before the effective retirement of the EMM so that a new EMM can contribute to the Indicative Pricings in the remaining term of the 6-month period. The HKMA will issue a letter to all MMs and the Calculator to advise on the change in the contributor's list and to initiate the logistic arrangements.

Submission channel failure

In case the pre-arranged submission channel for a contributor breaks down due to equipment or system failure, the Calculator may accept the contributor to submit its quotes via fax or e-mail. The Calculator will input the quotes to the system on behalf of the contributor to ensure that the Indicative Pricings process can proceed smoothly.

Release of information on Indicative Pricings**Daily information**

The table below shows the availability of the daily information on the Indicative Pricings:

	Indicative Pricings released at 11:30 am	Closing Reference released at 4:30 pm	Indicative quotes for all issues (including off-the-run EFBN issues)		Advance notice for switching of benchmarks
			around 11:30 am	around 4:30 pm	
Bloomberg	HKMA <GO>				
Reuters (Page code)	0#HKEFBN=MIDF	0#HKEFBN=EODF	0#HKTSYS=MFIX 0#HKTSY=MFIX	0#HKTSYS=CFIX 0#HKTSY=CFIX	HKMAEFBN
HKMA	HKMA website "Press Release" 2:30 pm Indicative Pricings	HKMA website "Press Release" 5:30 pm Closing Reference	HKMA website "Press Release" 2:30 pm Indicative Pricings	HKMA website "Press Release" 5:30 pm Closing Reference	-

Historical information

Individual news wire agencies will maintain the historical data series for the Indicative Pricings at 11:00 am and 4:00 pm for retrieval by their users.

The historical data series for the Indicative Pricings can be found in the Monthly Statistical Bulletin of the HKMA.

Disclaimer and use of the information on Indicative Pricings

While the Monetary Authority endeavours to provide a continuous, timely service and ensure the accuracy of the Indicative Pricings information contained in the relevant pages of the news wire agencies or in the HKMA website or publications, he is entitled to delete, suspend or edit the materials in his absolute discretion without giving any reason and/or notice and shall not be liable for any claim, loss or damage (including but not limited to, any economic, consequential and indirect loss) caused by, arising from or in connection with (i) the use of any information in the relevant pages of the news wire agencies or in the HKMA website or publications; and (ii) any disruption in the service or late availability of the reference yield and price or other information.

The posting of Indicative Pricings information on the relevant pages of the news wire agencies or in the HKMA website or publications shall not be deemed to be a recommendation by the Monetary Authority and he expressly disclaims any implied warranties of merchantability or fitness for a particular purpose, including without limitation, any warranty regarding the correctness, quality, accuracy, completeness, reliability or otherwise. Users are responsible for making their own assessments of all the information contained in or in relation to the relevant pages of the news wire agencies or in the HKMA website or publications and are advised to verify such information by themselves and obtain independent advice before acting on it.

By reviewing or downloading reference yield and price or other information in the relevant pages of the news wire agencies or in the HKMA website or publications, the users accept this disclaimer and agree to its terms.

When using the Indicative Pricings and the Closing Reference, the users are requested to denominate these data as the “Hong Kong Monetary Authority Exchange Fund Bills and Notes Indicative Pricings” or in short form, “HKMA EFBN Indicative Pricings” and “Hong Kong Monetary Authority Exchange Fund Bills and Notes Closing Reference” or in short form “HKMA EFBN Closing Reference” respectively, and to quote the Hong Kong Monetary Authority as the source and owner of the relevant data.