

SGX to introduce new closing price methodology for Exchange Traded Funds (ETFs) from 24 February

From 24 February 2014, SGX will introduce a new closing price methodology for ETFs. A daily closing price will be computed for all SGX-listed ETFs based on a pre-defined methodology and published at the end of each market day.

This ETF closing price will reflect the prevailing market conditions more closely, providing investors with an up-to-date closing price for market investment decision and portfolio valuation.

Salient Features

- This official ETF closing price will be computed and published daily, regardless of the ETF's trading activities.
- The ETF closing price can be derived either from a traded price or the best bid and offer prices, as outlined in the waterfall methodology below.
- The ETF closing price will be published after market close at 5.06pm and will be readily available on SGX's website and price pages of major data vendors.
- ETF investors, specifically asset and portfolio managers, can use the daily ETF closing price in place of the last traded price to value their portfolios with more precision during the Asian time zone.

CLOSING PRICE FOR ETFS FAQs:

1) What is an ETF Closing Price?

The ETF closing price is a daily closing price, computed for each ETF based on a pre-defined methodology and published at the end of the market day.

2) What is the reason for introducing closing price for ETFs?

Prior to the introduction of the closing price for ETFs, SGX does not disseminate any official “closing price” at the end of each day. The last traded price (“LTP”) of an ETF as at close of the market day is generally treated by market participants as the “closing price” for that day.

Introducing a daily closing price for ETFs will enable the establishment of a more current closing price which reflects the prevailing market conditions. We believe that this enhancement will provide investors of ETFs with an up-to-date closing price for making investment decision and portfolio valuation, thereby promoting a more vibrant ETF ecosystem

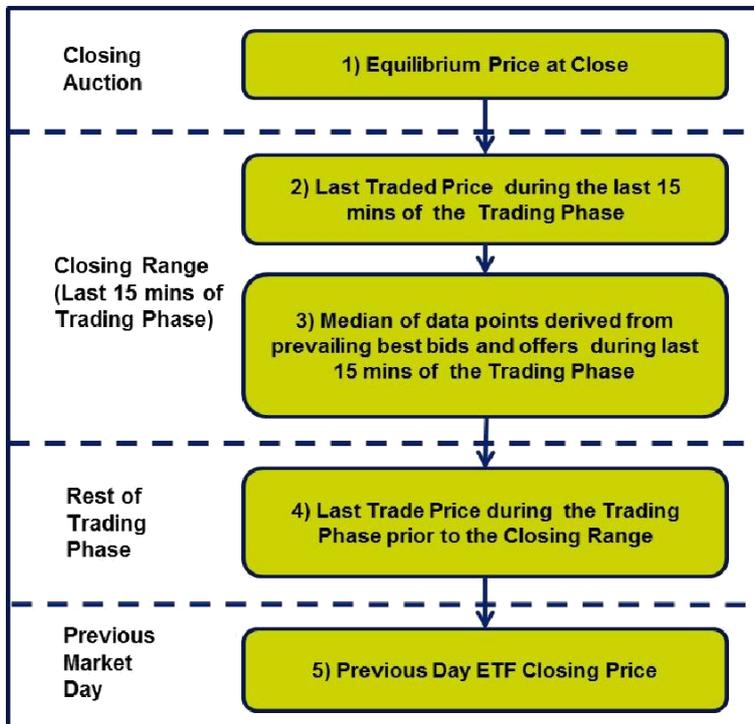
3) How will the closing price for ETFs be computed?

Under normal market conditions, the closing price for ETFs will be determined as follows:

- Step 1:** During the Closing Routine,¹ orders that can be matched are matched at a single price computed based on an algorithm set by SGX-ST. This single price is referred to as Equilibrium Price At Close (“EPAC”). If there is an EPAC during the Closing Routine, the EPAC will be the closing price for an ETF.
- Step 2:** If there is no EPAC, the last traded price during the Closing Range will be used as the closing price. The Closing Range is the last 15 minutes of the Trading Phase (from 9:00 to 17:00 for normal trading day and 9:00 to 12:30 for half trading day).
- Step 3:** If there are no trades during the Closing Range, the median of data points derived from prevailing best bids and offers during the Closing Range will be used as the closing price.
- Step 4:** If there is no closing price determined in Step 3, the last traded price that occurred prior to the Closing Range will be the closing price.
- Step 5:** If none of the above options are available, the closing price will be the closing price for ETF of the previous Market Day.

¹ The Closing Routine is a 6-minute session after trading stops at 17:00 hours for normal day trading, or 12:30 hours for half-day trading.

ETF Closing Price Methodology



Note: In unusual market conditions or other situations where the resulting price may not be appropriate, SGX-ST may determine a closing price based on any of the steps above instead of following the steps sequentially. In addition, SGX-ST may use an alternative formula and/procedure to determine the closing price for ETFs where it deems it necessary for desirable for ensuring a fair, ordering and transparent market or the integrity of the market, or for proper management of systemic risk in the market.

4) What are the guiding principles that SGX used in computing this ETF closing price?

In determining the methodology for establishing a closing price, SGX was guided by the following three key principles:

- The closing price should be reflective of prevailing market conditions as far as possible. This seeks to provide a meaningful reference price, particularly where it is used for portfolio valuation purposes.
- The closing price should not be readily susceptible to manipulation. This provides assurance of the integrity of the closing price.
- A closing price should be available even in the absence of a trade in the ETF. This is achievable in the case of an ETF as its price can be determined by reference to its underlying.

5) Which securities will be affected?

SGX will publish this daily closing price only for all ETFs listed in the Ready market. There will be not be closing price computed and published in unit share and buying-in markets and for any other securities listed on SGX.

6) How is the closing price different from the last traded price?

The last traded price for ETF (on T-date) is the price of the last done trade for the market day (T-date). The last traded price can be the Equilibrium Price at Close, the price of last done trade during the Trading Phase or the opening price. For securities counters with no trade on the market day, there will no last traded price for that market day.

The closing price for ETF is derived from a pre-determined methodology mentioned in Question 3. The closing price for ETF may not necessarily be the last traded price as it can be computed from traded prices or a set of data points from best bids and offers, based on the methodology. The closing price for ETF will be computed and published even if there is no trade done for that ETF counter on a particular market day.

7) What are the benefits of a closing price for ETFs?

The closing price for ETF will reflect more closely the prevailing market conditions. This enhanced feature present a more transparent value of what an ETF is worth, thereby providing investors of ETF with a more up-to-date closing price for making investment decision and portfolio valuation during Asian time zone.

This enhanced feature also improves risk management and functionality of market safeguards as the closing price for ETF will be adopted as the reference price for margining of ETF transactions, forced order range, error trade policy and dynamic circuit breaker.

8) What are the other uses of this closing price for ETFs?

The closing price for ETF may be used as a reference price for margining of ETF transactions, forced order key range, error trade policy and dynamic circuit breaker as follows:

- a. Securities Margining: For intra-day margining, the previous day's ETF closing price may be used if there is no traded price during the continuous trading session or opening auction. For end-of-day margining, the ETF closing price of the market day will be used;
- b. Forced Order Key: The previous day's ETF closing price may be used as the reference price for calculating the forced order price band if there is no trade executed on the market day;
- c. Error Trade Policy: The previous day's ETF closing price may be used as a reference price in setting the non-cancellation price range; and

- d. Dynamic Circuit Breaker: For the first 5 minutes of trading at the start of the market day, the previous day's ETF closing price may be used as the Circuit Breaker reference price if there is no opening price. In addition, for the rest of the continuous trading session, the previous day's ETF closing price may be used as the Circuit Breaker reference price until there is a trade executed on the market day.

The above helps to improve the functionality of these market safeguards by providing more up-to-date price data, especially for less actively traded ETFs.

9) When will the closing price for ETFs be published and where will I be able to see it?

The closing price for ETFs will be computed after the end of Trading Phase. It will be updated and published at the end of the market day in the price page for ETFs on SGX website (www.sgx.com) under a new column, "Close". The closing price for ETFs for T-date will be updated after the market closes on T-date (i.e. after 17:06 for normal day trading and after 12:30 for half-day trading) and will be shown there until the next update on T+1.

The screenshot shows the SGX website interface for ETFs. At the top, there are navigation tabs: Securities, Fixed Income, Derivatives, Indices, Marking of Sell Orders, Market Summary, and Sector Summary. Below these is a search bar with a 'Go' button and a large 'SAMPLE' watermark. The main content area shows a table of ETFs with columns for Counter Name, SIP Code, Rmk, Last, Chg, %, Vol, B Vol, Buy, Sell, S Vol, High, Low, Value, Sector, IOPV, and Close. The 'Close' column is circled in red. The table contains two rows: MSBANGL 10US\$ and Japan 10US\$.

Counter Name	SIP Code	Rmk	Last	Chg	%	Vol	B Vol	Buy	Sell	S Vol	High	Low	Value	Sector	IOPV	Close
MSBANGL 10US\$	O9C		-	-	-	0	100	0.920	0.960	100	-	-	0	FIN		0.940
Japan 10US\$	CW4		1.246	+0.004	+0.322	200	0	-	-	0	1.246	1.246	249	FIN	1.222	1.242

10) Where can I find information on this initiative on SGX's website?

Information on this initiative can be found at www.sgx.com/faqs.