



Cboe Australia 200 Index

Index Methodology Version 1.5

January-2022



Version Log

Version	Date	Description of changes
1.0	9 November 2017	Document creation
1.1	4 January 2019	Amendment to cut-off times from 16:13 to 16:00
1.2	5 March 2019	Amendment to publication time from 16:30 to 16:05
1.3	4 March 2021	Clarification on definition of index shares to explicitly incorporate free-float factor
1.4	19 April 2021	Clarification on tax rates on unfranked portion in 10.6.2
1.5	31 January 2022	Rebrand to Cboe Australia 200 Index

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1. Background

- 1.1. The Cboe Australia 200 Index ('Index') is a free-float market capitalization weighted index that captures approximately 80% (by total market capitalization) of the Australian equity market. The Index measures the performance of the largest 200 companies, while considering several criteria including free-float and liquidity.
- 1.2. Cboe Australia ('Cboe') is the sponsor of the Index, with Singapore Exchange Limited ('SGX') acting as calculation agent and administrator of the Index.
- 1.3. This document sets out the rules for construction, calculation and maintenance of the Index.

2. Eligibility Criteria

- 2.1. The top 250 securities, measured by 3-month Daily Traded Value (described in Section 4.4: Daily Traded Value), collectively in the Australian market are eligible for index inclusion. This eligibility criterion is measured at each index review date, as described in Section 6.0 – Index Review.
- 2.2. Only primary listings will be considered for inclusion in the Index. Chess Depository Interests (CDIs) are NOT eligible.
- 2.3. Ordinary shares, Real Estate Investment Trusts (REITs) and stapled securities are considered for inclusion; other share classes, such as preference shares and convertible stock, are ineligible for inclusion in the Index.

3. Liquidity Criteria

- 3.1. Eligible companies are screened for free-float and liquidity quarterly, at each index review date in March, June, September and December.
- 3.2. Newly listed companies are treated as new constituents, and will be screened from the date of listing to the review cut-off dates.

3.3. Daily Traded Velocity

- 3.3.1. Liquidity of each constituent is measured by daily traded velocity.
- 3.3.2. Daily traded velocity is defined as the ratio of a company's median daily traded value and the company's free-float market capitalisation.

$$\text{Daily Traded Velocity (\%)} = \frac{\text{Median daily traded value (AUD)}}{\text{Median Free float market capitalisation (AUD)}}$$

- 3.3.3. New constituents must meet a minimum daily traded velocity of 0.12%, measured at each index review date.

3.3.4. Existing constituents must meet a minimum daily traded velocity of 0.08%, measured at each index review date.

3.4. Median daily traded value

3.4.1. Daily traded value (DTV) is measured as the product of volume traded (in number of shares across the Australian equity market) and the official daily close price of each security:

$$\text{Daily Traded Value} = \text{Volume Traded} \times \text{Daily Close Price (AUD)}$$

3.4.2. In the March review, median DTV is measured from the first Business Day (as defined in section 12.1.1) of December to the last Business Day of February.

3.4.3. In the June review, median DTV is measured from the first Business Day of March to the last Business Day of May.

3.4.4. In the September review, median DTV is measured from the first Business Day of June to the last business of August.

3.4.5. In the December review, median DTV is measured from the first Business Day of September to the last Business Day of November.

3.4.6. Zero trading during open trading days is included in the calculation of the median for a stock; this includes periods of suspensions.

3.5. Free-Float Market Capitalisation

3.5.1. In the March review, the median of a company's free-float market capitalisation is measured from the first Business Day of December to the last Business Day of February.

3.5.2. In the June review, the median of a company's free-float market capitalisation is measured from the first Business Day of March to the last Business Day of May.

3.5.3. In the September review, the median of a company's free-float market capitalisation is measured from the first Business Day of June to the last Business Day of August.

3.5.4. In the December review, the median of a company's free-float market capitalisation is measured from the first Business Day of September to the last Business Day of November.

4. Free-Float Criteria

4.1. The market capitalisation of securities is adjusted to account for only shares deemed publicly available to investors ('free-float'). Free-float is used to determine a company's free-float market capitalisation, which is used to determine a company's daily traded velocity.

4.2. A company's free-float is reviewed annually, as part of the index review in September, in accordance to the [SGX Free-Float & Shares Methodology](#).

4.3. New constituents must meet a minimum free-float of 30%, measured at each index review date.

- 4.4. Existing constituents must meet a minimum free-float of 20%, measured at each index review date.
- 4.5. Any changes to free-float outside of the annual free-float review are performed per the stated rules in the [SGX Free-Float & Shares Methodology](#). If the free float of a security falls below 20%, it will be excluded from the index at the next index review date, unless the fall in float is due to Corporate Action. In the case of corporate actions, please refer to the [SGX Corporate and Index Actions Policy](#).

5. Index Review

- 5.1. The Index is reviewed quarterly in March, June, September and December.
- 5.2. The index reviews will be performed using data from the last Business Day in the preceding month (i.e. last Business Day in February for the March review and last Business Day in August for the September review).
- 5.3. Results from an index review are implemented effective after the close of the third Friday of the review month (index rebalance date). If Friday coincides with an index holiday, as defined in Section 12.1, the results will be implemented on the next trading day.
- 5.4. The index review process follows a four-step sequence: (i) Screening; (ii) Ranking; (iii) Inclusion and (iv) Weighting.

5.5. Screening

- 5.5.1. All securities listed on the Exchanges described in Para 2.1 are screened for eligibility, per the rules described in Section 2.0 – Eligibility Criteria.
- 5.5.2. Eligible companies are then screened for liquidity and free-float, per the rules described in Section 3.0 – Liquidity Criteria and Section 4.0 – Free-Float Criteria.
- 5.5.3. Companies that fail the screening processes described in Para 5.5.1 and Para 5.5.2 will not be considered for index inclusion.
- 5.5.4. Companies that were removed from the Index in the last index review will also not be considered for the current index review.

5.6. Ranking

- 5.6.1. All eligible companies are then ranked by the free-float market capitalization. Free-float market capitalization, in this context, is measured as of the last Business Day in the month preceding the index review.
- 5.6.2. The company with the largest free-float market capitalization will have the highest ranking (#1) and vice-versa for the company with the smallest free-float market capitalization.

5.7. Inclusion

- 5.7.1. A new entrant will be included in the index if an existing constituent becomes ineligible for inclusion – i.e. if an existing constituent fails the screening process.

- 5.7.2. A new entrant can also be included if one of the following conditions is met:
- 5.7.3. An existing constituent ranks equal or below the 220th position (i.e. rank 220 and below). In this instance, the aforementioned existing constituent will be removed, and the highest-ranking new entrant will be included in the index.
- 5.7.4. A new entrant ranks equal or above the 180th position (i.e. rank 180 and above). In this instance, the aforementioned new entrant will be included, and the lowest-ranking existing constituent will be removed from the index.

5.8. Weighting

- 5.8.1. Constituents of the Index are then weighted by free-float market capitalization.

6. Additions outside Index Reviews

- 6.1. To be eligible for index inclusion, New Initial Public Offerings ('IPOs') must trade for a minimum of one month.
- 6.2. After the minimum period of trading, described in Para 6.1, we will assess the aforementioned IPO for free-float and liquidity.
- 6.3. If the IPO passes the necessary criteria (eligibility, liquidity and free-float) and ranks above the 180th position (i.e. rank 180 and above), the IPO will be included in the Index. Ranking is measured by free-float market capitalization, described in Section 5.6.1, and will be performed one month after the primary listing has traded.
- 6.4. An inclusion between index reviews will result in the Index having more than the prescribed number of constituents (i.e. 200). The number of constituents will be normalized in the next index review.
- 6.5. In some circumstances where the size and liquidity of an IPO is considered to be significant based on the size, the book-build and the dispersion of institutional investors, we may conduct a survey and/or consultation with market participants and industry practitioners to assess the IPO's immediate eligibility.

7. Corporate & Index Actions

- 7.1. The treatment of all corporate actions, corporate events and general events are fully described in the [SGX Corporate and Index Actions Policy](#).
- 7.2. Handling of deleted constituents between index review dates**
- 7.2.1. If an index constituent is deleted, the vacancy will be filled by the highest-ranking non-constituent as of the last index review date.

8. Dissemination

8.1. Calculation and dissemination frequency

8.1.1. On any Business Day the Index is calculated on a real-time basis with index values disseminated every 15 seconds.

8.1.2. The Index is:

Calculated real-time between 10:00 to 16:00 Australian Eastern Standard Time ('AEST'; UTC +10). Any trades that occur past 16:00 AEST will not be included in the index calculation; and disseminated real-time between 10:00 to 16:00 Australian Eastern Standard Time ('AEST'; UTC +10)

8.1.3. The official close price for the Index will be calculated using the Cboe Australia daily close prices of the underlying constituents. The Index close price will be published at 16:05 AEST, or as soon as feasible thereafter.

8.2. Dissemination media

8.2.1. All index values and analytics are available, through subscription, via File Transfer Protocol (FTP).

9. Base Data

9.1. Base Date

9.1.1. The Index has a base date of 19 September 2013.

9.2. Base Value

9.2.1. The Index has a base value of 1000.

9.3. Base Currency

9.3.1. The Index has a base currency of Australian Dollar.

10. Index Calculation

10.1. Calculation of Index Values

10.1.1. The Index is calculated solely based upon transacted prices. All transacted prices are observable and are formed by the competitive forces of supply and demand in an active market, ensuring reliability in price discovery.

10.1.2. Prices are sourced real-time from Thomson Reuters.

10.2. Index Types

10.2.1. Four variants of the Cboe Australia 200 Index will be calculated:

- Price Index – Section 10.3
- Gross Total Return Index – Section 10.4
- Franked Total Return Index – Section 10.5
- Net Total Return Index – Section 10.6

10.3. Price Index

10.3.1. The Price Index captures only price movements in the underlying components. The Price Index does not capture returns derived from dividends.

10.3.2. The Price Index is calculated in accordance with the following formula:

$$\text{PriceIndex}_t = \frac{\sum_i^N (P_{i,t} \times E_t \times S_{i,t} \times F_{i,t} \times A_{i,t})}{D_t}$$

- $P_{i,t}$ Price of constituent i , at time, t
- E_t Exchange rate at time, t
- $S_{i,t}$ Shares outstanding of constituent i at time, t
- $F_{i,t}$ Free-float of constituent i at time, t
- $A_{i,t}$ Adjustment factor of constituent i at time, t
- D_t Index divisor (of underlying price index) at time, t

10.4. Gross Total Return Index

10.4.1. The Gross Total Return Index captures both price movements and the return derived from reinvestment of dividends.

10.4.2. The dividend value reinvested, in the case of this variant, is the declared dividend amount. Withholding tax is not accounted for – i.e. the full value of the declared dividend is reinvested, nor is there any adjustment or accounting for franking credits earned by the dividends.

10.4.3. Dividend values are reinvested on the dividend ex-date.

10.4.4. Index Dividend represents the total dividend paid in a day, based on the index shares of each individual constituent. Index Dividend, in the case of this variant, is calculated as:

$$\text{GrossIndexDividend}_t = \frac{\sum_{i=1}^N \text{Div}_{i,t} \times \text{Shares}_{i,t-1}}{D_{t-1}}$$

- $\text{Div}_{i,t}$ Declared dividend paid by constituent i , at time, t
- $\text{Shares}_{i,t-1}$ Free-float shares outstanding of constituent, i at time, $t-1$
- D_{t-1} Index divisor (of underlying price index) at time, $t-1$

10.4.5. The total return is then calculated based on the Gross Index Dividend value, as well as the Price Index. Total return is calculated as:

$$\text{GrossTotalReturn}_t = \frac{\text{PriceIndex}_t + \text{GrossIndexDividend}_t}{\text{PriceIndex}_{t-1}} - 1$$

- Price Index Price Index at time, t

10.4.6. The Gross Total Return Index, $\text{TRI}_{g,t}$, is then calculated as:

$$\text{TRI}_{g,t} = \text{TRI}_{g,t-1} \times (1 + \text{GrossTotalReturn}_t)$$

- $\text{TRI}_{g,t}$ Gross Total Return Index at time, t

10.5. Franked Total Return Index

10.5.1. The Franked Total Return Index captures both price movements and the return derived from reinvestment of dividends.

10.5.2. The dividend value reinvested, in the case of this variant, is the franked dividend amount. Franked dividends account for franking credits and are calculated as:

$$\text{FrankedDiv}_{i,t} = (\text{Div}_{i,t}) \times (1 - \% \text{ Franked}) + \frac{\text{Div}_{i,t} \times \% \text{ Franked}}{1 - \text{CompanyTaxRate}_t}$$

- $\text{Div}_{i,t}$ Declared dividend paid by constituent i , at time, t
- $\% \text{ Franked}$ Percentage of dividend payment that is franked. (e.g. 100% for fully franked dividends and 0% for unfranked dividends)
- CompanyTaxRate_t Company Tax Rate, at time, t

10.5.3. Dividend values are reinvested on the dividend ex-date.

10.5.4. Index Dividend represents the total dividend paid in a day, based on the index shares of each individual constituent. Index Dividend, in the case of this variant, is calculated as:

$$\text{FrankedIndexDividend}_t = \frac{\sum_{i=1}^N \text{FrankedDiv}_{i,t} \times \text{Shares}_{i,t-1}}{D_{t-1}}$$

- $\text{FrankedDiv}_{i,t}$ Franked dividend paid by constituent i , at time, t
- $\text{Shares}_{i,t-1}$ Free-float shares outstanding of constituent, i at time, $t-1$
- D_{t-1} Index divisor (of underlying price index) at time, $t-1$

10.5.5. The total return is then calculated based on the Index Dividend value, as well as the Price Index. Total return is calculated as:

$$\text{FrankedTotalReturn}_t = \frac{\text{PriceIndex}_t + \text{FrankedIndexDividend}_t}{\text{PriceIndex}_{t-1}} - 1$$

- PriceIndex_t Price Index at time, t

10.5.6. The Franked Total Return Index, TRIf,t , is then calculated as:

$$\text{TRIf},t = \text{TRIf},t-1 \times (1 + \text{FrankedTotalReturn}_t)$$

- TRIf,t Franked Total Return Index at time, t

10.6. Net Total Return Index

10.6.1. The Net Total Return Index captures both price movements and the return derived from reinvestment of dividends.

10.6.2. The dividend value reinvested, in the case of this variant, is the declared dividend amount net of withholding tax. Only unfranked portion of the dividend is taxed and the zero tax rate is applied on the franked portion. The withholding tax applied is the prevailing withholding tax as defined in the [SGX Index Edge – Withholding Tax Rate document](#).

10.6.3. Dividend values are reinvested on the dividend ex-date.

10.6.4. Index Dividend represents the total dividend paid in a day, based on the index shares of each individual constituent. Index Dividend, in the case of this variant, is calculated as:

$$\text{NetIndexDividend}_t = \frac{\sum_{i=1}^N (1 - \text{Tax}_i) \times \text{Div}_{i,t} \times \text{Shares}_{i,t-1}}{D_{t-1}}$$

- $\text{Div}_{i,t}$ Declared dividend paid by constituent i , at time, t
- $\text{Shares}_{i,t-1}$ Free-float shares outstanding of constituent, i at time, $t-1$
- D_{t-1} Index divisor (of underlying price index) at time, $t-1$
- Tax_i Prevailing withholding tax rate for constituent, i

10.6.5. The total return is then calculated based on the Net Index Dividend value, as well as the Price Index. Total return is calculated as:

$$\text{NetTotalReturn}_t = \frac{\text{PriceIndex}_t + \text{NetIndexDividend}_t}{\text{PriceIndex}_{t-1}} - 1$$

- PriceIndex_t Price Index at time, t

10.6.6. The Net Total Return, $\text{TRI}_{n,t}$, is then calculated as:

$$\text{TRI}_{n,t} = \text{TRI}_{n,t-1} \times (1 + \text{NetTotalReturn}_t)$$

- $\text{TRI}_{n,t}$ Net Total Return Index at time, t

10.7. Exchange Rates

10.7.1. Index values are calculated using currency bid rates, updated real-time, for each respective exchange rate.

10.7.2. Exchange rates are sourced from Thomson Reuters.

11. Policy

11.1. Holiday Schedule

11.1.1. The Index is calculated on business days, defined as days in which Cboe Australia is open for trading (“Business Days”).

11.1.2. The Index is not calculated on weekends or holidays. Holidays, in this context, refer to weekdays in which all of the underlying Exchanges of the index constituents are not open for trading. For a list of index holidays, please refer to the Cboe Australia website www.cboe.com.au.

11.2. Unscheduled Events

11.2.1. An unscheduled event could potentially cause unavailability of underlying data for index calculation. The index will continue to be calculated during the occurrence of an unscheduled event.

11.2.2. If the unscheduled event persists indefinitely, we will review on a case-by-case basis whether index calculation will continue. If we decide to cease index calculation, the cessation will be in accordance with Section 11.4 – Index Methodology Changes and Index Cessation.

11.3. Restatement of Index Values

11.3.1. If an index restatement is required, restatements will be performed in accordance with the [SGX Index Restatement Policy & Framework](#).

11.4. Index Methodology Changes and Index Cessation

11.4.1. External factors, some beyond the control of the index administrator, may impact elements of the index adversely. This includes, but is not limited to, a significant reduction in observed liquidity and representativeness. In such events, index methodology changes or even index cessation may be warranted and if so, the cessation will be performed in accordance to the [SGX Policy for Index Methodology Changes and Index Cessation](#).

11.4.2. Users of the Index should ensure that financial instruments linked to the Index are able to address the possibility of index cessation.

11.5. Notifications

11.5.1. All index notifications will be made at the earliest opportunity to subscribers through the appropriate media.

11.5.2. Notifications will contain the necessary explanation to sufficiently facilitate any changes.

12. Governance

12.1. SGX is the Benchmark Administrator as defined by the IOSCO Principles for Financial Benchmarks published in July 2013.

12.2. The Cboe Australia 200 Index is the Benchmark, as defined by the IOSCO Principles for Financial Benchmarks published in July 2013.

12.3. SGX Index Governance Committee

12.3.1. A review of this Index Methodology is conducted by the SGX Index Governance Committee on an annual basis. As part of the review the SGX Index Governance Committee will consider internal index management feedback, logged feedback from key external index stakeholders, feedback from the Index Advisory Panel established by Cboe Australia and any new regulatory developments. If the committee deems it necessary, this Index Methodology may be updated per the terms of the [SGX Index Services Policy on Methodology Changes and Index Cessation](#) and this may invoke a market consultation that will be conducted in alignment with that policy's terms.

- 12.3.2. The SGX Index Governance Committee will monitor the operational adherence to the methodology set out in this document. SGX will aim to comply with the terms of this document. However, deviations from this policy may be required to more adequately reflect the true experience of portfolio managers during events that may not be entirely captured in this document.
- 12.3.3. Any deviations, errors or exceptions in executing the terms of this methodology will be recorded in an “Exceptions Log” that is reviewed by the SGX Index Governance Committee. The committee may then recommend changes or enhancements to the methodology, or refer certain portions of this methodology to a closed-market consultation before recommending any actions.
- 12.3.4. In instances whereby a deviation from the methodology occurs, SGX will provide adequate notice and full justification ahead of the planned implementation of the action or event.

12.4. Complaints Procedure

- 12.4.1. Procedures to make a formal complaint are described in the [SGX Complaints Procedures Policy](#).

12.5. Roles and Responsibilities

Index Sponsor

- 12.5.1. Cboe Australia is the sponsor of the Index (‘Index Sponsor’). The Index Sponsor owns all intellectual property rights, including but not limited to branding rights, copyrights, trademarks and design rights in connection with the Index. The Index Sponsor is responsible for all research and design underpinning the Index rules and is responsible for obtaining the necessary licenses relating to underlying data used in the creation of the Index that may not be its own. The Index Sponsor has the authority to delegate, or transfer, the roles and responsibilities pertaining to the index, such as the role of Index Calculation Agent and Index Administrator, to an entity (or entities) at its own discretion. As of the index live date, the Index Sponsor has assigned Singapore Exchange Limited as both the Index Calculation Agent and the Index Administrator.

Index Calculation Agent

- 12.5.2. SGX is the Index Calculation Agent for the Index, appointed by the Index Sponsor.
- 12.5.3. The Index Calculation Agent is responsible for:
- The day-to-day calculation of the Index, including the retrieval of necessary data inputs, processing of data, calculation and distribution of values;
 - The day-to-day management of the Index, including the monitoring and adjustment of corporate actions, calculation and dissemination scheduling and verification of calculated data;
 - Periodic rebalancing of the Index, including the publication of any index and weight changes to the relevant parties;
 - Archiving and storage of historical index values, as well as the underlying parameters that form such values.

Index Administrator

- 12.5.4. SGX is the Index Administrator for the Index, appointed by the Index Sponsor.

12.5.5. The Index Administrator is responsible for:

- Oversight and governance including the creation and implementation, of policies pertaining to the Index;
- Index Governance Committee oversight to ensuring that index calculation functions are in alignment with stated policies and procedures;
- Establishing internal controls for the management of any actual or perceived risks in the determination of index values and ensuring compliance with such controls through the Index Governance Committee;
- Management of any complaints pertaining to the Index methodology, computation and distribution;
- Ensuring that the index methodology remains relevant and representative of the market with periodic methodology review;
- Establishing strict protocols and procedures for any potential changes to index methodology.

13. Reference Documents

Please go to the following links for reference documents:

- 13.1. [SGX Free-Float & Shares Methodology](#)
- 13.2. [SGX Corporate Action and Index Actions Policy](#)
- 13.3. [SGX Index Edge – Withholding Tax Rate](#)
- 13.4. [SGX Index Restatement Policy & Framework](#)
- 13.5. [SGX Policy for Index Methodology Changes and Index Cessation](#)
- 13.6. [SGX Complaints Procedures Policy](#)

14. Contact Information

Please email au.indices@cboe.com for more details.

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