
China Balance 20%

Index Rules v2.0
Version as of 19 October 2010

1. Index Descriptions

The China Balance 20 % (the “Index”) measures the performance of a rules-based, quantitative investment strategy that reflects the relative return of a futures index, based on a 20% target volatility risk control mechanism. The Index Rules are quantitative. Positions are taken in futures on the Underlying Index and an excess return index (the “Underlying Futures Index”) is created from rolling futures positions on the Underlying Index.

The exposure to the Underlying Futures Index is adjusted daily based on formulas outlined in the Index Rules which compare the volatility of the Underlying Futures Index to the target volatility. The purpose of adjusting the exposure is to decrease the exposure to the Underlying Futures Index when the volatility of the Underlying Futures Index increases and to increase the exposure to the Underlying Futures Index when its volatility decreases. The exposure to the Underlying Futures Index is capped at 150%.

China Balance 20% (the “Index”) is the property of Svenska Handelsbanken AB (publ) (“Handelsbanken”).

2. Index Rules

2.1 Terms and definitions relating to the Index

Business Days	Hong Kong
$ACT(t-1, t)$	Number of calendar days between the Calculation Date ($t-1$) (included) and the Calculation Date (t) (excluded)
Calculation Date, " t "	any Scheduled Valuation Date on which no Index Disruption Event occurs (except as provided for in Section 3); Calculation Date ($t-1$) means the preceding Calculation Date to the Calculation Date (t)
Exposure, " E_t "	in respect of any Calculation Date (t), the Exposure to the Underlying Futures Index is determined by the Index Calculator in accordance with the formula specified in Section 2.5
Exposure change Threshold " ΔE "	The minimal amount that the exposure can be changed, i.e. if the indicated change of the exposure is less than the threshold " ΔE " it is kept unchanged as defined in Sections 2.5 and 2.8. As of the calculation date $t = 2010-10-25$ the threshold is 10%. Prior to that date it is zero.
Index	The China Balance 20 % Index
Index Calculator	Handelsbanken Capital Markets
Index Currency	Hong Kong Dollar (“HKD”)
Index Disruption Event	in respect of the Underlying Index, the occurrence or existence of an Underlying Index Disruption Event and/or an Underlying Futures Index Disruption Event which in any case the Index Calculator determines is relevant.
Index Base Date, " t_0 "	2005-03-02 (YYYY-MM-DD)
Index Launch Date	2009-09-16
Index Level, " I_t "	in respect of any Calculation Date (t), the level of the Index calculated and announced by the Index Calculator on such date at the Valuation Time, in accordance with section 2.4
Index Owner	Svenska Handelsbanken AB (publ)

Index Sponsor	Svenska Handelsbanken AB (publ)
Initial value of the Index, " I_0 "	the value of the Index was set to 100 as of the Index Base Date
Maximum Exposure, " E_{\max} "	150% , maximum Exposure to the Underlying Futures Index
$N(t_1, t_2)$	the number of Calculation Dates between the Calculation Date (t_1) (included) and the Calculation Date (t_2) (excluded). If the Calculation Date (t_1) occurs after the Calculation Date (t_2), $N(t_1, t_2) = -N(t_2, t_1)$ applies.
Scheduled Valuation Day	any Business day on which the Underlying Index Exchange and Related Exchange is scheduled to be open for its regular trading sessions.
Target Exposure, " TE_t "	in respect of any Calculation Date (t), the Target Exposure to the Underlying Futures Index is determined by the Index Calculator in accordance with the formula specified in Section 2.5
Target Volatility, " Vol^B "	20%
Valuation Time	the scheduled Business Day closing time of futures contracts of the Underlying Index trading on the Underlying Index Exchange during its after noon trading session without regard to after hours or any other trading outside of the regular trading sessions.

2.2 Terms and definitions relating to the Underlying Index

Underlying Index	the Hang Seng China Enterprises Index (Reuters ticker: .HSCEI; Bloomberg Ticker: HSCEI <Index>). The Hang Seng China Enterprises Index is published and compiled by Hang Seng Indexes Company Limited pursuant to a licence from Hang Seng Data Services Limited. The mark(s) and name(s) Hang Seng China Enterprises Index is a property of Hang Seng Data Services Limited. Hang Seng Indexes Company Limited and Hang Seng Data Services Limited have agreed to the use of, and reference to, the Underlying Index by Handelsbanken in connection with the Index. Neither Hang Seng Indexes Company Limited nor Hang Seng Data Services Limited shall have any liability for any error or omissions in calculating the Index.
Underlying Index Disruption Event	in respect of the Underlying Index, the occurrence or existence on any Scheduled Valuation Day, of an event beyond the control of the index calculator which precludes the calculation and/or the publication of the Underlying Index.
Underlying Index Exchange	The Hong Kong Stock Exchange.
Related Exchange	in respect of the Underlying Index, each exchange or quotation system where trading has a material effect (as determined by the Index Calculator) on the overall market for futures or options contracts relating to the Underlying Index.
Underlying Index Extraordinary Event	As described in Section 4.

2.3 Terms and definitions relating to the Underlying Futures Index “ S_t ”

Underlying Futures Index Start Date " u_0 "	2003-12-09 (YYYY-MM-DD)
Underlying Futures Index Level, " S_t "	in respect of any Calculation Date (t), the level of the Underlying Futures Index is calculated by the Index Calculator in accordance with section 2.3.1
Initial value of the Underlying Futures Index, " S_{u_0} "	the value of the Underlying Futures Index was set to 100 as of the as of the Underlying Futures Index Start Date u_0 .
Future Contract value with expiry T, " F_t^T "	in respect of the Calculation Date t , the level of the Future Contract on the Underlying Index that expires at Date T .
Expiry Date of the First Future Contract, " T_t^1 "	in respect of the Calculation Date t , the first Expiry date of all open Futures Contracts on the Underlying Index.
Expiry Date of the Generic Future Contract, " T_t^G "	in respect of the Calculation Date t , the first Expiry date of all open Futures Contracts on the Underlying Index that has more than 2 days to expiry, i.e., $N(t, T_t^G) > 2$.
Underlying Futures Index Disruption Event	in respect of the Underlying Futures Index, the occurrence or existence on any Scheduled Valuation Day, of an event beyond the control of the Index Calculator which precludes the calculation of the Underlying Futures Index.

2.3.1 Determination of the Underlying Futures Index “ S_t ”

As of each Calculation Date, (t), when $N(u_0, t) \geq 1$, the value of the Underlying Futures Index “ S_t ” is calculated by the Index Calculator in accordance with the following formula:

$$S_t = S_{t-1} \left(w_1 \frac{F_t^{T_t^1}}{F_{t-1}^{T_t^1}} + w_G \frac{F_t^{T_t^G}}{F_{t-1}^{T_t^G}} \right)$$

Where

$$w_1 = 1 - w_G \text{ and}$$

$$w_G = 1 \text{ if } N(t, T_t^1) \geq 3 \text{ or } N(t, T_t^1) = 0$$

$$w_G = 1/3 \text{ if } N(t, T_t^1) = 2$$

$$w_G = 2/3 \text{ if } N(t, T_t^1) = 1$$

This means that one third of the Futures exposure is rolled on each day in the "roll period".

2.4 Determination of the Index Level “ I_t ”

$I_0 = 100$ (as of the index Base Date)

As of each Calculation Date (t) when $N(t_0, t) \geq 1$, Index Level “ I_t ” is determined by the Index Calculator in accordance with the following formula:

$$I_t = I_{t-1} \left[1 + E_{t-1} \left(\frac{S_t}{S_{t-1}} - 1 \right) \right]$$

where

E_{t-1} = in respect of the Calculation Date $t - 1$, the Exposure to the Underlying Index (as described in section 2.5)

S_t = in respect of the Calculation Date t , the Underlying Futures Index Level on such date

2.5 Determination of the Exposure “ E_t ”

Calculation of the Exposure “ E_t ” is based on the Target Exposure “ TE_t ”. The Target Exposure “ TE_t ” is related to the historical volatility of the Underlying Futures Index and the Convexity Correction Factor. The Target Exposure “ TE_t ” may not exceed 150%. As of each Calculation Date (t), the Target Exposure “ TE_t ” is determined by the Index Calculator in accordance with the following formula:

$$TE_t = \min(E_{\max}, CCF_{t-1} * Vol^B / Vol_{t-1}^S)$$

where

$E_{\max} = 150\%$, the Maximum Exposure to the Underlying Futures Index

$CCF_{t-1} = \max(0.75, Vol^B / Vol_{t-1}^{UA})$, the Convexity Correction Factor on the Calculation Date ($t - 1$)

Vol_{t-1}^{UA} = in respect of the Calculation Date ($t - 1$), the historical volatility of the Unadjusted Balance Index (as described in section 2.9)

Vol_{t-1}^S = in respect of the Calculation Date ($t - 1$), the historical volatility of the Underlying Futures Index (as described in section 2.6)

The Exposure “ E_t ” is related to the Target Exposure “ TE_t ” in such a way that “ E_t ” is unchanged relative to its previous value at the Calculation Date ($t - 1$) if the distance $abs(TE_t - E_{t-1})$ is smaller than the threshold “ ΔE ”. If the distance is greater than or equal to the threshold “ ΔE ” the Exposure “ E_t ” is set equal to the Target Exposure. Thus, at each Calculation Date after the Base Date the Exposure is given by:

$$E_t = \begin{cases} TE_t & \text{if } abs(TE_t - E_{t-1}) \geq \Delta E \\ E_{t-1} & \text{if } abs(TE_t - E_{t-1}) < \Delta E \end{cases}$$

where $abs(TE_t - E_{t-1}) = TE_t - E_{t-1}$ if $TE_t \geq E_{t-1}$
and $abs(TE_t - E_{t-1}) = E_{t-1} - TE_t$ if $TE_t < E_{t-1}$

On the index Base Date the Exposure was set equal to the Target Exposure.

2.6 Determination of the Historical Volatility of the Underlying Futures Index " Vol_t^S "

As of each Calculation Date (t) when $N(t, t_0) < 254$, i.e., when the Historical Volatility of the Underlying Futures Index is to be calculated for any Calculation Date after the 254th Calculation Date preceding the Index Base Date, it is determined by the Index Calculator in accordance with the following formula:

$$Vol_t^S = \sqrt{\lambda_S (Vol_{t-1}^S)^2 + (1 - \lambda_S) \left[\ln \left(\frac{S_t}{S_{t-1}} \right) \right]^2} \cdot 252$$

where

$\lambda_S = 0.96$, the exponentially weighted smoothing factor for calculating the historical volatility of the Underlying Index

“ln” means the logarithm to the base e

As of the Calculation Date (t) when $N(t, t_0) = 254$, i.e., when the number of Calculation Dates between the Calculation Date (t) (included) and the Index Base Date (t_0) (excluded) is 254, the Historical Volatility of the Underlying Index on such date is determined by the Index Calculation Agent in accordance with the following formula:

$$Vol_t^S = \sqrt{\sum_{i=t-49}^t \frac{\alpha_{t,i}}{SF_t^S} \left[\ln \left(\frac{S_i}{S_{i-1}} \right) \right]^2} \cdot 252$$

where

$$\alpha_{t,i} = (1 - \lambda_S) * \lambda_S^{t-i}$$

$$SF_t^S = \sum_{j=t-49}^t \alpha_{t,j}$$

2.7 Determination of the Unadjusted Balance Index Level “ I_t^{UA} ”

The Unadjusted Balance Index is calculated in order to obtain the Convexity Correction Factor CCF_t as defined in section 2.5. $I_t^{UA} = 100$ as of the Calculation Date ($t = t_0^{UA}$) when

$N(t_0^{UA}, t_0) = 253$, i.e., the Unadjusted Balance Index Level was set to 100 as of the 253rd Calculation Date preceding the Index Base Date

On each Calculation Date (t) when $N(t_0^{UA}, t) \geq 1$, the Unadjusted Balance Index Level “ I_t^{UA} ” is determined by the Index Calculator in accordance with the following formula:

$$I_t^{UA} = I_{t-1}^{UA} \left[1 + E_{t-1}^{UA} \left(\frac{S_t}{S_{t-1}} - 1 \right) \right]$$

where

E_{t-1}^{UA} = in respect of the Calculation Date ($t - 1$), the Exposure of the Unadjusted Balance Index to the Underlying Futures Index (as described in section 2.8)

2.8 Determination of the Exposure of the Unadjusted Balance Index “ E_t^{UA} ”

Calculation of the Exposure of the Unadjusted Balance Index “ E_t^{UA} ” is based on the Target Exposure “ TE_t^{UA} ”. The Target Exposure “ TE_t^{UA} ” is related to the historical volatility of the Underlying Futures Index and it may not exceed 150%. As of each Calculation Date (t), the Target Exposure “ TE_t^{UA} ” is determined by the Index Calculator in accordance with the following formula:

$$TE_t^{UA} = \min(E_{\max}, Vol^B / Vol_{t-1}^S)$$

The Exposure “ E_t^{UA} ” is related to the Target Exposure through the formula:

$$E_t^{UA} = \begin{cases} TE_t^{UA} & \text{if } abs(TE_t^{UA} - E_{t-1}^{UA}) \geq \Delta E \\ E_{t-1}^{UA} & \text{if } abs(TE_t^{UA} - E_{t-1}^{UA}) < \Delta E \end{cases}$$

where $abs(TE_t^{UA} - E_{t-1}^{UA}) = TE_t^{UA} - E_{t-1}^{UA}$ if $TE_t^{UA} \geq E_{t-1}^{UA}$

and $abs(TE_t^{UA} - E_{t-1}^{UA}) = E_{t-1}^{UA} - TE_t^{UA}$ if $TE_t^{UA} < E_{t-1}^{UA}$

On the Calculation Date ($t = t_0^{UA}$) the Exposure was set to the Target Exposure, i.e. $E_t^{UA} = TE_t^{UA}$.

2.9 Determination of the Unadjusted Balance Index Historical Volatility " Vol_t^{UA} "

As of each Calculation Date (t) when $N(t_0, t) \geq 0$, i.e., when the Unadjusted Balance Index Historical Volatility is to be calculated for the Index Base date or any Calculation Date after the Index Base Date, it is determined by the Index Calculator in accordance with the following formula:

$$Vol_t^{UA} = \sqrt{\lambda_{UA} (Vol_{t-1}^{UA})^2 + (1 - \lambda_{UA}) \left[\ln \left(\frac{I_t^{UA}}{I_{t-1}^{UA}} \right) \right]^2} \cdot 252$$

where

$\lambda_{UA} = 0.99$, which is the exponentially weighted smoothing factor for calculating the Unadjusted Balance Index Historical Volatility

As of the Calculation Date (t) when $N(t, t_0) = 1$, i.e., if the Unadjusted Balance Index Historical Volatility is to be calculated for the preceding Calculation Date to the Index Base date, it is determined by the Index Calculator in accordance with the following formula:

$$Vol_t^{UA} = \sqrt{\sum_{i=t-251}^t \frac{\alpha_{t,i}^{UA}}{SF_t^{UA}} \left[\ln \left(\frac{I_i^{UA}}{I_{i-1}^{UA}} \right) \right]^2} \cdot 252$$

where

$$\alpha_{t,i}^{UA} = (1 - \lambda_{UA}) * \lambda_{UA}^{(t-i)}$$

$$SF_t^{UA} = \sum_{j=t-251}^t \alpha_{t,j}^{UA}$$

3. Consequences of an Index Disruption Event

If an Index Disruption Event occurs on a Scheduled Valuation Day for the Underlying Index and/or for the Underlying Futures Index, then there will be no level for the Index calculated or announced on such day. The next Calculation Date on which the Index is calculated and announced by the Index Calculation Agent shall in such case be the first succeeding Scheduled Valuation Day on which the Index Calculation Agent determines that an Index Disruption Event no longer exists; unless an Index Disruption Event occurs on each of the twenty Scheduled Valuation Days immediately following the initial Scheduled Valuation Day, then that twentieth Scheduled Valuation Day, and each Scheduled Valuation Day thereafter on which an Index Disruption Event continues to exist, shall be deemed to be a Calculation Date, notwithstanding the existence of an Index Disruption Event on such date(s).

Notwithstanding the foregoing, if an Index Disruption Event continues for twenty consecutive Scheduled Valuation Days, then the Index Calculation Agent may, subject to agreement with the Index Sponsor, permanently cancel the Index on such twentieth Scheduled Valuation Day.

4. Underlying Index Extraordinary Event

If the Underlying Index is (i) not calculated and announced by the Underlying Index Exchange but is calculated and announced by a successor entity acceptable to the Index Calculator, or (ii) replaced by a successor index using, in the determination of the Index Calculator, the same or a substantially similar formula for and method of calculation as used in the calculation of the Underlying Index, then in each case that index (the "Successor Index") may be deemed the Underlying Index if so specified by the Index Calculator.

If, on any Scheduled Valuation Date, the Underlying Index Exchange permanently cancels the Underlying Index and no Successor Index exists, then the Index Calculator shall permanently cancel the Index.

5. Limits of Liability

The Index Owner is not liable for loss or damage resulting from Swedish or foreign legislative enactment, actions of Swedish or foreign authorities, war, power failure, telecommunication failure, fire, water damage, strike, blockade, lockout, boycott, or other similar circumstances outside the control of the Index Owner. The reservation with respect to strikes, blockade, lockout and boycott also applies if the Index Owner adopts or is the object of such conflict measures.

The Index Owner is not responsible in any circumstance for loss of data, non-payment of profits or other indirect damage. The Index Owner provides no express or implied warranties regarding the results which may be obtained as a consequence of the use of the Index or regarding the value of the Index at any given time. The Index Owner shall in no case be liable for errors or defects in the Index nor obligated to provide notice of, or publish, errors in the Index.