



Guideline relating to the  
ING Phil-China Equity Index

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This document contains the underlying principles and regulations regarding the structure and the operating of the ING Phil-China Equity Index. Solactive AG shall make every effort to implement regulations. Solactive AG does not offer any explicit or tacit guarantee or assurance, neither pertaining to the results from the use of the index nor the index value at any certain point in time nor in any other respect. The index is merely calculated and published (exclusively for Belgium, Netherlands, Luxembourg, Singapore, Malaysia, Philippines and Hong Kong) by Solactive AG and it strives to the best of its ability to ensure the correctness of the calculation. There is no obligation for Solactive AG – irrespective of possible obligations to issuers – to advise third parties, including investors and/or financial intermediaries, of any errors in the index. The publication of the index by Solactive AG is no recommendation for capital investment and does not contain any assurance or opinion of Solactive AG regarding a possible investment in a financial instrument based on this index.

# Introduction

This document is to be used as a guideline with regard to the composition, calculation and management of the ING Phil-China Equity Index. The ING Phil-China Equity Index is calculated and published by Solactive AG. ING Bank N.V. reserves all rights relating to the Index.

## 1 Index specifications

The ING Phil-China Equity Index is an index of ING Bank N.V. and is calculated and distributed by Solactive AG. It tracks a volatility based strategy on an equally weighted basket of the following:

k	Equity Name	ISIN	Bloomberg Ticker
1	Hang Seng Investment Index Funds Series - H-Share Index ETF	HK2828013055	<2828 HK> Equity
2	iShares MSCI Philippines Investable Market Index Fund	US46429B4086	<EPHE UP> Equity

### 1.1 Short name and ISIN

The ING Phil-China Equity Index is distributed under ISIN [DE000SLA3CE5](#); the WKN is [SLA3CE](#). The index is published in Reuters under the RIC code [.INGPHCHE](#) and in Bloomberg under the Ticker [INGPHCHE Index](#).

### 1.2 Initial value

The index is based on 100 as at the close of trading on the “**Start Date**” of 12 Dec 2013.

### 1.3 Distribution

The ING Phil-China Equity Index is published via the price marketing services of Boerse Stuttgart AG and is distributed to all affiliated vendors. Each vendor decides on an individual basis as to whether he will distribute/display the ING Phil-China Equity Index via his information systems.

### 1.4 Prices and calculation frequency

The value of the ING Phil-China Equity Index is calculated once every Business Day after the close of trading in the Index Country. The closing price of the Underlying Equity is used every Business Day. In case there is no closing price of the Underlying Equity for any Business Day, the most recent closing price is used.

In the event that data cannot be provided to the pricing services of Boerse Stuttgart AG the Index cannot be distributed.

Any incorrect calculation is adjusted on a retrospective basis.

### 1.5 Publication

All specifications and information relevant for calculating the Index are made available on the <http://www.solactive.com> web page and sub-pages.

### 1.6 Historical data

Historical data will be maintained from 12 Dec 2013.

## **1.7 Licensing**

Licences to use the Index as the underlying value for derivative instruments are issued to stock exchanges, banks, financial services providers and investment houses by Solactive AG and ING Bank N.V.

## **2 Composition of the Index**

### **2.1 Index concept**

The ING Phil-China Equity Index is calculated on every Business Day based on the underlying basket of equities. The ING Phil-China Equity is designed to maintain a target volatility of close to 10%.

### **2.2 Ordinary adjustment**

An ordinary adjustment will take place on every Adjustment Day after the close of trading in the Index Country.

### 3 Calculation of the Index

#### 3.1 Index formula

The ING Phil-China Equity Index is an index whose value on a Business Day is calculated using the following formula:

$$\text{Index}_t = \text{Index}_{t-1} * [ 1 + \text{alloc}(t-1) * \text{Basket Return}(t-1,t) ]$$

with:

$$\text{Index}_{t=0} = 100$$

t = Business Day t

On an "Adjustment Day",  $\text{alloc}(t) = \text{Target Allocation}(t-1)$ ; otherwise  $\text{alloc}(t) = \text{alloc}(t-1)$ .

with

$$\text{alloc}(0) = 100\%$$

$$\text{Target Allocation}(t) = \text{Min} \left( 100\%, \frac{\text{Volatility Target}}{\text{Historic Volatility}(t)} \right),$$

$$\text{Basket Return}(t-1, t) = \frac{\sum_{k=1}^2 1/2 * \text{Equity Price}(k, t) / \text{Equity Price}(k,0)}{\sum_{k=1}^2 1/2 * \text{Equity Price}(k, t-1) / \text{Equity Price}(k,0)} - 1$$

with

Equity Price(k,t) being the official closing price of Equity(k) as of Business Day t; and  
Equity Price(k,0) being the official closing price of Equity(k) as of [●].

#### 3.2 Accuracy

The Index value will be rounded to three decimal places.

#### 3.3 Calculation of the Index in the event of a market disruption

An Index is not calculated in the case of a Market Disruption Event. If the market disruption continues over a period of eight Business Days, the Index Calculator calculates the Index value taking into account the market conditions prevailing at this point in time and the last price of the underlying equities as well as any other conditions that it deems relevant for calculating the Index value.

## 4. Definitions

“**Underlying Equity(k)**” for k=1 to 2 refers to the following equities:

	Fund Name	ISIN	Bloomberg Ticker
1	Hang Seng Investment Index Funds Series - H-Share Index ETF	HK2828013055	<2828 HK> Equity
2	iShares MSCI Philippines Investable Market Index Fund	US46429B4086	<EPHE UP> Equity

“**Volatility Target**” is 10%.

“**Historic Volatility(t)**” is the realized historic volatility calculated on Business Day t using the following formula:

$$\text{Historic Volatility}(t) = [ 0.97 * \text{Historical Volatility}(t-1)^2 + 0.03 * \text{Basket Return}(t-1,t)^2 * 260 ]^{0.5}$$

with:

$$\text{Historic Volatility}(t=0) = 10\%$$

“**Adjustment Day**” is every 14 calendar days, beginning on the Start Date. In case this happens to not be a Business Day, the Adjustment Day is the immediately following Business Day.

“**Start Date**” is 12 Dec 2013.

“**Business Day**” is every day on which New York Stock Exchange is open for trading.

The “**Index Calculator**” is Solactive AG or any other appropriately appointed successor in this function.

The “**Index Country**” is the United States.

The “**Index Currency**” is USD.

A “**Market Disruption Event**” occurs if

1. one of the following events occurs or exists on a Business Day for the underlying equity (equities):
  - A) trading is suspended or restricted (due to price movements that exceed the limits allowed by the exchange or an Affiliated Exchange, or for other reasons):
    - 1.1. across the whole exchange; or
    - 1.2. in options or futures contracts on or with regard to the underlying equity (equities) that is(are) quoted on an Affiliated Exchange; or
    - 1.3. on an exchange or in a trading or quotation system (as determined by the Index Calculator) in which the underlying equity (equities) is(are) listed or quoted; or
  - B) an event that (in the assessment of the Index Calculator) generally disrupts and affects the opportunities of market participants to execute on the exchange transactions in respect of the underlying equity (equities) or to determine market values for the underlying equity (equities) or to execute on an Affiliated Exchange transaction with regard to options and futures contracts on the underlying equity (equities) or to determine market values for such options or futures contracts; or
2. trading on the exchange or an Affiliated Exchange is ceased prior to the usual closing time (as defined below), unless the early cessation of trading is announced by the exchange or Affiliated Exchange on this Business Day at least one hour before
  - (aa) the actual closing time for normal trading on the exchange or Affiliated Exchange on the Business Day in question or, if earlier,
  - (bb) the closing time (if given) of the exchange or Affiliated Exchange for the execution of orders at the time the quote is given.

“**Normal exchange closing time**” is the time at which the exchange or an Affiliated Exchange is normally closed on working days without taking into account after-hours trading or other trading activities carried out outside the normal trading hours; or

3. a general moratorium is imposed on banking transactions in the Index Country if the above-mentioned events are material in the assessment of the Index Calculator, whereby the Index Calculator makes his decision based on those circumstances that he considers reasonable and appropriate.

An “**Affiliated Exchange**” is with regard to the underlying equity (equities) an exchange, a trading or quotation system on which options and futures contracts on the underlying equity (equities) in question are traded, as specified by the Index Calculator.

## **5 Appendix**

### **5.1 Contact data**

#### **Index Owner**

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### **5.2 Calculation of the Index – change in calculation method**

The application by the Index Calculator of the method described in this document is final and binding. The Index Calculator shall apply the method described above for the composition and calculation of the Index and the Index value. However it cannot be excluded that the market environment, supervisory, legal, financial or tax reasons may require changes to be made to this method. The Index Calculator may also make changes to the terms and conditions of the Index and the method applied to calculate the Index value, which he deems to be necessary and desirable in order to prevent obvious or demonstrable error or to remedy, correct or supplement incorrect terms and conditions. The Index Calculator is not obliged to provide information on any such modifications or changes. Despite the modifications and changes the Index Calculator will take the appropriate steps to ensure a calculation method is applied that is consistent with the method described above.