

# **METHODOLOGY FOR IQ<sup>®</sup> ARB MERGER ARBITRAGE INDEX**



## **Introduction**

- This document sets forth the methodology for the following index (the “Index”):
  - IQ<sup>®</sup> ARB Merger Arbitrage Index
- The Index is currently calculated by Standard & Poor’s and the Index value on a price basis is disseminated every 15 seconds to the Securities Industry Automation Corporation (SIAC) so that such Index value can print to the Consolidated Tape.
- The Index uses a rules-based process to select and weight individual components of the Index (“Index Components”).

## **Eligibility Requirements**

- All deal information is sourced from the MergerStat database, or a similar database including similar takeover transaction information, and Bloomberg.
- The universe of eligible Index Components includes the following deal types: Acquisition; Merger; Leveraged Buyout; and Private Equity. Minority Interests, Unit Divestitures, Target Ownership (private, division/unit), State Owned, and Joint Ventures are excluded.
- Eligible deal types must also have greater than 50% ownership sought by the acquirer.
- The Index is comprised of common stocks and exchange traded funds (ETFs) only.
- The Index Components are listed for trading on one of the following exchanges and are headquartered in one of the following countries / locales:

<u>Exchange</u>	<u>Country / Locale</u>
○ ASX National	Australia
○ Copenhagen	Denmark
○ Euronext Belgium	Belgium
○ Euronext France	France
○ Euronext Netherlands	Netherlands
○ Euronext Portugal	Portugal
○ Helsinki	Finland
○ Hong Kong	Hong Kong
○ Irish Main Market	Ireland
○ Italy Continuous	Italy

○ JASDAQ	Japan
○ London	United Kingdom
○ Madrid	Spain
○ NASDAQ	United States
○ NYSE	United States
○ NYSE Arca	United States
○ NZSE National Market	New Zealand
○ OM Stockholm	Sweden
○ Osaka	Japan
○ Oslo	Norway
○ Singapore	Singapore
○ Spanish Stock Market	Spain
○ Swiss Virt-X	Switzerland
○ SWX	Switzerland
○ Tokyo	Japan
○ Toronto	Canada
○ XETRA	Germany
○ Vienna	Austria
○	Greece

### **Selection Criteria**

- IndexIQ identifies announced security deal types based on the categories outlined above in “Eligibility Requirements,” creating a monthly IndexIQ Merger Arbitrage Index eligibility list (“Index Eligibility List”).
- IndexIQ calculates a probability scenario for each deal type within the Index Eligibility List as per the following rules-based methodology:

$C_p$  = Close Price of security 1 day prior to Monthly Rebalance Date

$A_{p-1}$  = Close Price of security 1 day prior to deal announcement date

$O_p$  = Offer Price of security on deal announcement date

$$\text{Probability} = (C_p - A_{p-1}) / (O_p - A_{p-1})$$

<b>Scenario #</b>	<b>Scenario</b>	<b><u>Probability Scenario Calculation</u></b>
1	$C_p < A_{p-1} < O_p$	Probability less than zero
2	$A_{p-1} < C_p < O_p$	Probability between zero and 100
3	$A_{p-1} < O_p < C_p$	Probability greater than 100
4	$C_p < O_p < A_{p-1}$	Probability greater than 100
5	$O_p < C_p < A_{p-1}$	Probability between zero and 100
6	$O_p < A_{p-1} < C_p$	Probability less than zero

- Scenarios #1, #2, #3, and #4 deals are included on the Index Eligibility List and are potentially included in the Index as per the monthly reconstitution and rebalance process outlined below.
- Scenarios #5 and #6 deals are eliminated from the Index Eligibility List.

### **Monthly Reconstitution and Rebalance**

- The Index is reconstituted – pursuant to which Index Components are added and subtracted – and rebalanced – pursuant to which Index Component weights are rebalanced – on a monthly basis. The monthly reconstitution and rebalance is conducted on the 1st business day of each month (“Monthly Rebalance Date”) and effective two business days following the Monthly Rebalance Date (“Effective Date”).
- Additions based on “Selection Criteria” above and existing Index securities within the Index that fall in scenarios #1, #3, and #4 remain in the Index until deletion as per “Corporate Actions” below or if greater than 180 days have passed since the deal announcement date as of the Monthly Rebalance Date.
- Additions based on “Selection Criteria” above that fall in scenario #2 remain in the Index until deletion as per “Corporate Actions” below or if greater than 180 days have passed since the deal announcement date as of the Monthly Rebalance Date.
- Existing Index securities that fall in scenario #2 remain in the Index until deletion as per “Corporate Actions” below or if greater than 360 days have passed since the deal announcement date as of the Monthly Rebalance Date.
- As of the Monthly Rebalance Date, all potential additions to the Index that have an effective acquisition date between the Monthly Rebalance Date and Effective Date are excluded from the Index.
- As per the monthly rebalance, the index will hold ETFs as follows:
  - At least 2 inverse and/or ultra inverse ETFs in an attempt to provide the Index with a partial hedge to the equity markets
  - One or more short- and/or medium-term bond ETFs used to represent cash exposure

### **Weighting**

- The common stock Index Component weights are calculated based on their 7 day median dollar value traded as of the Monthly Rebalance Date.

- To the extent excess weight exists in the Index that cannot be allocated to common stock Index Components due to the weighting parameters set forth above, such excess weight is allocated to one or more short- and/or medium-term bond ETFs.
- The final common stock Index Component weights are then scaled to 90% to provide for a 10% aggregate allocation (no more than 5% each) to at least 2 inverse and/or ultra inverse ETFs.
- At the time of each Monthly Rebalance Date, no single common stock Index Component may have a weighting greater than 15%. To the extent one or more Index Components would exceed this limitation, the cap is applied and the excess weight is allocated proportionately among the other Index Components per “Weighting” set forth above.

### **Index Formula**

- The following formula is used to calculate the Index:

$$\frac{\sum_{i=1}^n (P_i \times IQWF_i)}{D}$$

$P_i$  = Price of security  $i$

$IQWF_i$  = IndexIQ Weight Factor

$D$  = Divisor

### **Ongoing Maintenance**

#### ***Stock Splits / Reverse Splits / Stock Dividends***

- Non-divisor adjustments are made to each Index as appropriate in connection with any of these stock-related corporate actions.

#### ***Extraordinary Distributions***

- In the event of certain types of corporate actions, such as the payment of a dividend, other than an ordinary cash dividend, rights offering, or a distribution with respect to an Index Component, the divisor is adjusted to reflect the adjustment to the price of that component stock resulting from the distribution.

### ***Mergers / Takeovers***

- If, pursuant to one of the transaction types set forth above in “Eligibility Requirements,” an existing Index Component is merged into or is otherwise acquired by another Index Component for shares, cash, or a combination of shares and cash, then the Index Component being acquired is removed from the Index on the effective date of the transaction and no replacement is made. The surviving entity remains a component of the Index with its weight factor adjusted so that the surviving entity retains the same overall percentage representation within the Index as the sum of the entities prior to the transaction. For international companies, the deletion will occur two days prior to the ex-date. In the event the ex-date changes within the 2-day time period, the security will still be removed.
- If, pursuant to one of the transaction types set forth above in “Eligibility Requirements,” an existing Index Component is merged into or is otherwise acquired by a non-component, then the existing Index Component is removed, no replacement is made, and the weight is redistributed to the ETF(s) representing cash exposure. For international companies, the deletion will occur two days prior to the ex-date. In the event the ex-date changes within the 2-day time period, the security will still be removed.
- If an existing Index Component acquires a non-component, the existing Index Component remains in the Index with an unchanged percentage representation, and the weights of all other Index Components are not adjusted.

### ***Bankruptcy, De-Listing or Prolonged Trading Suspension***

- In the event of an Index Component’s bankruptcy, the Index Component is removed from the Index effective after the close on the date of the bankruptcy filing and is removed at the value at which it last traded, with no replacement made. The weight is redistributed to the ETF(s) representing cash exposure. For international companies, the deletion will occur two days prior to the ex-date. In the event the ex-date changes within the 2-day time period, the security will still be removed.
- In the event of an Index Component’s de-listing from one of the exchanges outlined above under “Eligibility Requirements”, the Index Component is removed from the Index effective after the close on the date of the de-listing and is removed at the value at which it last traded, with no replacement made. The weight is redistributed to the ETF(s) representing cash exposure. For international companies, the deletion will occur two days prior to the ex-date. In the event the ex-date changes within the 2-day time period, the security will still be removed.
- In the event that trading in an Index Component is suspended for more than three (3) consecutive trading days, the Index Component is removed from the Index effective after the close on the third such day of trading and is removed at the

value at which it last traded, with no replacement made. The weight is redistributed to the ETF(s) representing cash exposure. For international companies, the deletion will occur two days prior to the ex-date. In the event the ex-date changes within the 2-day time period, the security will still be removed.

### *Spin-Offs*

- In the event a company is spun-off from an existing Index Component, the spun-off company is not included in the Index and the weight percentage representation is redistributed to the ETF(s) representing cash exposure. For international companies, the deletion will occur two days prior to the ex-date. In the event the ex-date changes within the 2-day time period, the security will still be removed.

### *Dividends*

- Dividend payments by Index Components are treated as if they are reinvested in the Index in calculating the total return Index.

### *Extraordinary Circumstances*

- In the event of an extraordinary circumstance in which an Index Component no longer conforms to the objectives of the Index, the Index Committee may elect to eliminate the Component from the Index. In such a situation, the Index Committee may seek to find a replacement Component that best conforms to the objective of the Index pursuant to the process set forth above.

### **Base Date & Value**

- The Base Date and Value for the Index are October 31, 2007 and 1000, respectively.

### **Rule Changes**

- Any material change in the Index rules may be made following 60 days public notice.

### **Index Committee**

- The Index methodology is maintained by the Index Committee. The Index Committee meets monthly to review the monthly reconstitution / rebalance and as necessary on an ad hoc basis to make any extraordinary decisions regarding the Index.

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