



## **NYSE FANG+™ Index**

Version 1.0  
Valid from  
September 26, 2017

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### **Version History:**

#### **Version 1.0 (Effective September 26, 2017)**

The methodology document covers the newly-launched NYSE FANG+ Index.

## 1. Index summary

<b>Factsheet</b>	
<i>Full Names</i>	NYSE FANG+ Index
<i>Index Types</i>	Price Return (USD): NYFANG Gross Total Return (USD): NYFANGT Opening Settlement Value (USD): NYFANGST
<i>Index Description</i>	<p>The NYSE FANG+ Index is an equal-dollar weighted index designed to represent a segment of the technology and consumer discretionary sectors consisting of highly-traded growth stocks of technology and tech-enabled companies such as Facebook, Apple, Amazon, Netflix, and Alphabet's Google.</p> <p>Index compositions and corporate actions, including rebalance information, can be accessed from NYSE Market Data at <a href="http://www.nyse.com/market-data/indices">www.nyse.com/market-data/indices</a>.</p>
<i>Eligible Stocks</i>	Common stocks and ADRs listed on a major U.S. exchange (NYSE, NASDAQ, NYSE American)
<i>Number of Constituents</i>	Variable, with a minimum of 10 stocks / Index contains 10 stocks at launch
<i>Weighting</i>	Equal-weighted
<i>Review of Composition</i>	Announced quarterly after the close of the Wednesday preceding the third Friday of March, June, September, and December
<i>Effective Date of the Rebalance</i>	Effective quarterly after the close of trading on the third Friday of March, June, September, and December
<i>Calculation Frequency</i>	Price Return: Every 15 seconds between 09:30 & 18:00 ET Total Return: Every 15 seconds between 09:30 & 18:00 ET Opening Settlement Value: Monthly on 3 <sup>rd</sup> Friday
<i>Base Date</i>	September 19, 2014
<i>Base Level</i>	1000.00
<i>Historic Data Available Since</i>	September 19, 2014
<i>Derivatives and Linked Products</i>	NYSE FANG+ Index Future (ICE Futures US)
<i>Bloomberg Code</i>	NYFANG INDEX / NYFANGT INDEX
<i>Reuters Code</i>	.NYFANG / .NYFANGT
<i>Launch Date</i>	September 26, 2017

## 2. Governance and Disclaimer

### Index Sponsor & Administrator

ICE Data Indices, LLC (“ICE Data”) is the Index Sponsor and the Index Administrator.

ICE Data is responsible for the day-to-day management of the Index, including retaining primary responsibility for all aspects of the index determination process, including implementing appropriate governance and oversight, as required under the International Organization of Securities Commission’s Principles for Financial Benchmarks (the IOSCO Principles). The Governance Committee is responsible for helping to ensure ICE Data’s overall compliance with the IOSCO Principles, by performing the Oversight Function which includes overseeing the index development, design, issuance and operation of the indices, as well as reviewing the control framework. ICE Data is also responsible for decisions regarding the interpretation of these rules and the Governance Committee is responsible for reviewing all rule book modifications and index constituent changes with respect to the Index to ensure that they are made objectively, without bias, and in accordance with applicable law and regulation and ICE Data’s policies and procedures. Consequently, all ICE Data’s and the Governance Committee discussions and decisions are confidential until released to the public.

### Cases not covered in rules

In cases which are not expressly covered in these rules, operational adjustments will take place along the lines of the aim of the Index. Operational adjustments may also take place if, in the opinion of the Index Administrator, it is desirable to do so to maintain a fair and orderly market in derivatives on this Index and/or this is in the best interests of the investors in products based on the Index and/or the proper functioning of the markets.

Any such modifications described under this section will also be governed by any applicable and outstanding policies and procedures in place by ICE Data at such time.

### Rule book changes

The Governance Committee reviews all rule book modifications and Index changes to ensure that they are made objectively, without bias and in accordance with applicable law and regulation and ICE Data’s policies and procedures. These rules may be supplemented, amended in whole or in part, revised or withdrawn at any time. Supplements, amendments, revisions and withdrawals may also lead to changes in the way the Index is compiled or calculated or affect the Index in another way.

Any such modifications described under this section will also be governed by any applicable and outstanding policies and procedures in place by ICE Data at such time.

### Disclaimer

The Index and other information disseminated by ICE Data are for informational purposes only, are provided on an “as is” basis, and are not intended for trading purposes. ICE Data makes no warranty, express or implied, as to, without limitation, (i) the correctness, accuracy, reliability or other characteristics of the Index, (ii) the results to be obtained by any person or entity from the use of the

Index for any purpose or (iii) relating to the use of the Index, including, but not limited to, express or implied warranties of merchantability, fitness for a particular purpose or use, title or non-infringement. ICE Data does not warrant that the Index will be uninterrupted and is under no obligation to continue compiling, calculating, maintaining or sponsoring the Index.

ICE Data is not liable for any losses resulting from supplementing, amending, revising or withdrawing the rules for the Index. The Index Administrator will use commercially reasonable efforts to ensure the accuracy of the composition, calculation, publication and adjustment of the Index in accordance with relevant rules, however, ICE Data is not liable for any inaccuracy in share prices, calculations and the publication of the index, the information used for making adjustments to the index and the actual adjustments.

ICE Data shall not bear any responsibility or liability, whether for negligence or otherwise, with respect to (i) any inaccuracies, omissions, mistakes or errors in the methodology(ies) or formulas for, or computation of, the Index (and shall not be obligated to advise any person of and/or to correct any such inaccuracies, omissions, mistakes or errors), (ii) the use of and/or reference to the Index by ICE Data or any other person in connection with any financial product or otherwise or (iii) any economic or other loss which may be directly or indirectly sustained by any client or other person dealing with any such financial product or otherwise. Any client or other person dealing with such financial products does so, therefore, in full knowledge of this disclaimer and can place no reliance whatsoever on ICE Data nor bring claims, actions or legal proceedings in any manner whatsoever against any of them.

#### Ownership and trademarks

Intercontinental Exchange, Inc. and/or its affiliates or subsidiaries (“ICE”) own all intellectual and other property rights to the Index, including, but not limited to, the composition and the calculation of the Index. NYSE<sup>®</sup>, NYSE<sup>®</sup> Arca<sup>®</sup> and NYSE<sup>®</sup> Group, Inc. are registered trademarks of ICE.

## 3. Publication

### *3.1 The opening, intraday and closing or daily publication of index values.*

#### Opening

The first index level is calculated and published around 09:30 ET, when the U.S. equity markets open for their regular trading session. The calculation of that level utilizes the most updated prices available at that moment. In the case of constituents that have a non-traded, halted or suspended status, or have not opened for the current day, the previous day's reference prices (primary exchange official closes) or estimated prices (for IPOs, buyouts and swap offers) are used.

#### Dissemination frequency

The level of the price return and total return index is in principle published every 15 seconds to the NYSE Global Index Feed (NYSE GIF). The calculated index levels incorporate the latest traded price of each constituent from within the regular trading session, normally 09:30 to 16:00 ET. The index only holds equities listed and traded in the U.S., and thus, intraday calculations of the index would incorporate trades on a consolidated level, from all exchanges including those not designated as the official primary exchange.

The index is calculated from 09:30 until 18:00 ET on those days specified as index business days. Index business days will be classified as days on which the U.S. Equity Markets (NYSE, NASDAQ, and NYSE American) are open for a full or partial day of trading.

#### Closing level

The closing level is the last level disseminated on the trading day and uses the official close prices from the primary listing market for each constituent. For constituents that have non-traded, halted or suspended status, or have not opened for the current day, the previous day's reference prices (primary exchange official closes) or estimated prices (for IPOs, buyouts and swap offers) are used instead. In the case of exceptional market conditions, the Index Administrator reserves the right to utilize other prices in the calculation of the official closing level, as indicated below in Section 3.2.

#### Sources of Data

The Consolidated Tape (CTS/UDTF) is the primary market data source for U.S. equity real-time and closing prices. Additional sources of data less commonly used include market data vendors, company announcements, exchange announcements, and other official sources.

### *3.2 Exceptional market conditions and corrections*

The Administrator retains the right to delay the publication of the opening level of the index. Furthermore, the Administrator of the index retains the right to suspend the publication of the level of the index if it believes that circumstances prevent the proper calculation of the index.

If index constituent prices are cancelled, the index will not be recalculated unless the Administrator decides otherwise.

Commercially reasonable efforts are made to ensure the correctness and validity of data used in real-time index calculations. If incorrect price or corporate action data affects index daily highs, lows, or closes, it is corrected retroactively as soon as possible and all revisions are communicated out to the public and market data vendors.

There is the possibility of an exchange or market-wide event resulting in the normal closing auction not going off or official closing prices not being available. In those situations, the index will take guidance from the respective exchange(s) and address on an event-by-event basis. Exchange or market-wide events include, but are not limited to, the following:

- Volatility Halts
  - LULD (Limit Up / Limit Down)
  - Market Wide Circuit Breaker
- Technological Problems / Failures
- Natural Disaster or Other BCP-Related Event

### *3.3 Announcement policy*

#### Announcement policy

Changes to the index methodology which arise as a result of market feedback, consultations, internal reviews, or otherwise will be communicated by an index announcement which will be distributed by ICE Data Indices at [www.nyse.com/indices](http://www.nyse.com/indices) and NYSE Market Data at [www.nyse.com/market-data/indices](http://www.nyse.com/market-data/indices).

Consultations and Methodology reviews will be undertaken in accordance with ICE Data's policies and procedures.

As a general rule the announcement periods that are mentioned below will be applied. However, urgently required corporate action treatments, often resulting from late notices from the relevant company or exchange, may require the Administrator to deviate from the standard timing.

#### Inclusion of new constituents

The inclusion of new companies in the index will typically only occur during the quarterly rebalance, although there could be exceptions based on a specific corporate action affecting a current constituent during the year. The inclusion of the new company will be announced at least three trading days before the effective date of the actual inclusion. For example, for the rebalance effective for September 18, 2017, the announcement would occur after the close on September 13, 2017.

#### Removal of Constituents

Components would be removed from the index as a result of periodic corporate actions as well as the results of the quarterly rebalance. All removals will be announced at least three trading days before the effective date of the removal. It should be noted that in the case of mergers and acquisitions, every effort will be made to remove the company at some reasonable time ahead of the suspension in trading in the acquired company. There will be certain situations and corporate actions that would require the removal of a company that has already ceased trading. In those cases, the company will be removed from the index at its last traded price, or, at the discretion of the index Administrator, at a derived price that most accurately represents its post-suspension value.

### Corporate actions

In case of an event that could affect one or more constituents, the Administrator will inform the market about the intended treatment of the event in the index shortly after the firm details have become available and have been confirmed. When possible, the corporate action will be announced, even if not all information is known, at least one trading day before the effective date of the action. Once the corporate action has been effectuated, the Administrator will confirm the changes in a separate announcement.

### Rule changes

Going forward, barring exceptional circumstances, a period of at least two months should pass between the date a proposed rule change is published and the date it goes into effect. Exceptions can be made if the change is not in conflict with the interests of a Stakeholder, which specifically includes external parties that subscribe to the index data or license it as the basis for an investment product.

### Reviews: publication of new selection

The new composition of the index, including the companies to be a part of the index and their corresponding new index weights, will be announced at least three trading days before the effective date and can be accessed from NYSE Market Data at [www.nyse.com/market-data/indices](http://www.nyse.com/market-data/indices).

## 4. Calculation

### *4.1 Calculation of the price index*

The index is calculated on a Price Return and Gross Total Return basis. The current index level would be calculated by dividing the current modified index market capitalization by the index divisor. The divisor was determined off of the initial capitalization base of the index and the base level. The divisor is updated as a result of corporate actions and composition changes.

The Gross Total Return calculation incorporates regular cash dividends paid in the underlying constituents and reinvests those distributions into the index at the open of the dividend ex-date.

## 5. Index rebalances

### 5.1 General aim of rebalances and frequency

#### General aim of the periodical rebalance

The general aim of the quarterly rebalance of the index is to ensure that the selection and weightings of the constituents continues to reflect as closely as possible the index's objective of representing a segment of the technology and consumer discretionary sectors consisting of the most highly-traded and high-growth technology and internet/media stocks such as Facebook, Apple, Amazon, Netflix, and Alphabet's Google. The Administrator reserves the right to, at any time, change the number of stocks comprising the index by adding or deleting one or more stocks, or replacing one or more stocks contained in the index with one or more substitute stocks of its choice, if in the Administrator's discretion such addition, deletion or substitution is necessary or appropriate to maintain the quality and/or character of the index. Any such action would need to be approved by the Governance Committee.

#### Frequency

Changes to the index constituents may occur during a scheduled rebalance and as a result of the removal of an index constituent.

The quarterly index rebalance becomes effective after the close of the third Friday of March, June, September, and December. The rebalance announcement will be made after the close of the Wednesday preceding that third Friday. The reference date for all company-specific data and information utilized in the rebalancing process will be taken from that same day, with exception of the prices utilized to determine the shares which will be taken from the third Friday.

### 5.2 Index universe and selection principle

#### Index Universe

The index universe will consist of all stocks classified as Consumer Discretionary or Technology by ICE Data that are listed on a major U.S. stock exchange like NYSE, NASDAQ, or NYSE American. ADRs are eligible for inclusion in the index.

#### Selection of constituents

At each quarterly rebalance, the index universe will be screened utilizing a proprietary methodology. The following steps will be executed:

1. Stocks must have a market capitalization (including all share classes and unlisted shares) of at least \$5 billion
2. Stocks must have a trailing six month average daily traded value (ADTV / turnover) of \$50 million on the specific listing line
3. The ICE Data Indices Governance Committee will oversee a process to select FANG and FANG-related stocks. The FANG stocks include Facebook, Apple, Amazon, Netflix, and

Alphabet's Google. Other stocks selected for the index should exhibit characteristics of high-growth technology and internet/media stocks. The Committee will focus on distinguishing between traditional technology and services companies and newer, innovative, technology-utilizing companies.

4. The final list of companies will be equally weighted based upon the prices and index market capitalization as of the close of trading on the third Friday of March, June, September, and December.

### *5.3 Periodical update of weighting*

#### Determining constituent weightings at Quarterly Index Rebalances

At Quarterly Index Rebalances, the index will be rebalanced according to the methodology in Section 5.2.

## **6. Corporate Actions**

### *6.1 General*

The index may be adjusted in order to maintain the continuity of the index level and the composition. The underlying aim is that the index continues to reflect as closely as possible the index's objective of representing a segment of the technology and consumer discretionary sectors consisting of the most highly-traded and high-growth technology and internet/media stocks such as Facebook, Apple, Amazon, Netflix, and Alphabet's Google.

Adjustments take place in reaction to events that occur with constituents in order to mitigate or eliminate the effect of that event on the index performance.

### *6.2. Removal of constituents*

Any stock deleted from the index as a result of a corporate action such as a merger, acquisition, spin-off, delisting or bankruptcy will be replaced by a new stock. Thus, the total number of stocks in the index will stay constant. The committee would select a replacement stock that reflects the index objective and is in line with the rebalancing selection criteria as set forth in Section 5.2 above. If a company is removed and replaced in the index, the divisor will be adjusted to maintain the index level.

#### **6.2.1. Mergers and Acquisitions**

**Merger or acquisition between members of the Index:** In the event a merger or acquisition occurs between members of the Index, the acquired company is deleted and will be replaced by another company. There will be no change made to the acquiring company's position.

**Merger or acquisition between a member and a non-member:** A non-member is defined as a company that is not a current constituent of the Index. A merger or acquisition between one member of the Index and one non-member can take two forms:

- (1) The acquiring company is a member of the Index and the acquired company is not. There will be no action taken within the index.
- (2) The acquiring company is not a member, but the acquired company is a member. The acquired company is removed from the index and will be replaced by another company. It is possible that the replacement company selected for the index is the acquiring company.

#### **6.2.2 Suspensions and company distress**

Immediately upon a company filing for bankruptcy, an announcement will be made to remove the stock from the index effective for the next business day following the bankruptcy. If the stock is trading on an over-the-counter (OTC) market, the last trade or price on that market is utilized as the deletion price on that day.

If the stock does not trade on the relevant exchange between the bankruptcy announcement and the deletion effective date, the stock may be deleted from the index in that corporate action with a presumed market value of \$0.

### **6.2.3 Price sources**

In the event that the trading in shares is suspended or halted, the last known price established during regular daytime trading on the primary exchange will be used. Depending on the particular situation, the Index Administrator may choose to value the security at a price of \$0 for purposes of index calculation and/or index corporate action. This would be applicable for certain extreme cases such as a company bankruptcy or severe distress when the security is non-transactable.

### **6.3 Spin-offs**

The closing price of the index constituent is adjusted by the value of the spin-off, and the shares of the index constituent will be adjusted to maintain its existing weighting in the index. The divisor will be adjusted to account for any changes in the overall index market capitalization.

Spun-off companies will not be added into the index at the time of the event.

### **6.4 Dividends**

#### **6.4.1. Distinction ordinary and special dividend**

The price return index will be adjusted for dividends that are special in nature, typically through a price adjustment and corresponding share increase to maintain the constituent's existing weighting in the index. The divisor will be adjusted to account for any changes in the overall index market capitalization.

To decide whether a dividend should be considered a special dividend the Administrator will use the following criteria:

- a) the declaration by a company of a dividend additional to those dividends declared as part of the company's normal results and dividend reporting cycle; merely an adjustment to the timing of the declaration of a company's expected dividend would not be considered as a special dividend circumstance; or
- b) the identification of an element of a dividend paid in line with a company's normal results and dividend reporting cycle as an element that is unambiguously additional to the company's normal payment.

For the purpose of clarification, the Administrator will not make adjustment for the following situations, specifically in the Price Return Index:

1. Payment of ordinary dividends, irrespective of how they are financed;
2. Issue of redeemable shares or any other entitlement in lieu of an ordinary dividend; or
3. Unexpected increase or decrease, resumption or cessation, or change in frequency to an ordinary dividend.

### **6.5. Rights issues and other rights**

In the event of a rights issue, the price is adjusted for the value of the right before the open on the ex-date, and the shares are increased to maintain the constituent's existing weighting within the index. The adjustment assumes that the rights issue is fully subscribed. The amount of the price adjustment is determined from the terms of the rights issue, including the subscription price, and the price of the underlying security. The Index Administrator shall only enact adjustments if the rights represent a positive value, or are in-the-money, or alternatively, represent or can be converted into a tangible cash value.

#### *6.6 Bonus issues, stock splits and reverse stock splits*

For bonus issues, stock splits and reverse stock splits, the number of shares included in the index will be adjusted in accordance with the ratio given in the corporate action. Since the event will also incorporate a corresponding price adjustment and won't change the value of the company included in the index, the divisor will not be changed because of this.

#### *6.7 Changes in number of shares*

Changes in the number of shares outstanding, typically due to share repurchases, tenders, or offerings, will not be reflected in the index.

## 7. Index Formula

### 7.1 Index calculation formula

The general formula for the **price return version** of the Index is:

$$Index_t = \frac{1}{D_t} \sum P_{i,j} Q_{i,j}$$

Where:

- t means Index Calculation Date t
- D<sub>t</sub> means the Index divisor on Index Calculation Date t
- P<sub>i,t</sub> means the price of Index Constituent i on Index Calculation Date t
- Q<sub>i,t</sub> means the number of shares of Index Constituent i on Index Calculation Date t

Index Calculation Date means a U.S. Business Day where all of the Constituent Exchanges are open.