

# REFINITIV STARMINE AFFINITY WORLD LEADERS INDEX

## Index Methodology

April 2020

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Your questions about the document, suggestions, and contributions are welcome. Please address enquiries to:

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# 1. INTRODUCTION

## 1.1 Affinity Investment Advisors

Incepted in June 1992, Affinity's long-earned history of success is based on a pragmatic and disciplined investment approach where earnings and valuation matter. Clients gain from an experienced and collaborative collection of individuals with decades of experience managing the investment assets for a wide range of clients, including corporate retirement accounts, public retirement plans, Taft-Hartley accounts, endowments and foundations, and retail separate accounts.

Affinity seeks to identify and invest in attractively-valued businesses whose underlying fundamentals are improving. They focus on applying an appropriate emphasis on systematic stock selection, comprehensive risk management and disciplined portfolio construction.

For more information, please see <http://affinityinvestment.com/>

## 1.2 Refinitiv Indices

Serving more than 40,000 institutions in over 190 countries, Refinitiv provides information, insights and technology that drive innovation and performance in global financial markets. Our heritage of integrity enables our customers to make critical decisions with confidence while our best-in-class data and cutting-edge technologies enable greater opportunity.

We enable the financial community to trade smarter and faster, overcome regulatory challenges, and scale intelligently.

Refinitiv provides trusted and innovative indices and index-related services to the investment community. Whether one requires indices for benchmarking, or for the development of investment vehicles, Refinitiv offers a range of index solutions to satisfy the requirements.

## 1.3 Index Description

Refinitiv StarMine Affinity World Leaders Index is a highly selective business sector and region-neutral index derived from Refinitiv Global Developed Index.

The index is designed to include equities from developed countries with a proven track record based on a variety of StarMine metrics. The index selects companies from developed countries with strong financial and trading positions, with the goal of including sector leaders in their respective regions.

The index has been created to serve asset managers seeking to invest in the developed market equities best positioned for future performance, without incurring excess risk through region or business sector bias. The index is denominated in US Dollars, and performance is available from 30th March 2007.

## 1.4 Intended Readership

This document provides details on the construction and maintenance of the Refinitiv StarMine Affinity World Leaders Index. It is intended for internal use by Refinitiv, Affinity Investment Advisors and any relevant regulatory bodies.

## **1.5 Document Publication**

This document is available on the Refinitiv website and on request.

## 2. Constituent Universe

### 2.1 Parent Index

The constituents' universe is derived from Refinitiv Global Developed Equity Index (called the parent index). The index is a free float adjusted market capitalization weighted index. It is a broad market index including large, mid, small and certain micro caps, providing investors with exposure to stocks of the exchanges of Global Developed Index countries. The parent index has the following inclusion criteria:

- A minimum 15% free float (companies are dropped if free float falls below 10% after inclusion);
- A minimum of 6 months trading history;
- Companies with multiple international listings are included on the basis of country of headquarters, incorporation or primary economic activity;
- Various liquidity measures are used to ensure illiquid companies are not included in the index, and all constituents need to satisfy the following criteria:
  - Be part of the top 99.5% of the free float market capitalisation of the exchanges under consideration;
  - Be part of the top 99.5% of the trading value of the exchanges under consideration;
  - Trade on at least 90% of trading days; and
  - Have a minimum market cap of US\$150Mn and free float adjusted market cap of US\$75Mn

The parent Index is rebalanced biannually every April and October.

For a complete description of the index rules, please refer to the methodology for Refinitiv Global Equity indices, [here](#)

### 2.2 Refinitiv Starmine Affinity World Leaders Index

Candidates are restricted to those equities making up the top 85% of cumulative free float market capitalization. Securities from following Global Developed countries are selected:

- Australia
- Austria
- Belgium
- Canada
- Denmark
- Finland
- France
- Germany
- Hong Kong
- Ireland
- Israel
- Italy
- Japan
- Netherlands
- New Zealand
- Norway
- Portugal
- Singapore
- Spain
- Sweden
- Switzerland
- United Kingdom
- United States

The security selection process is based on a composite score composed of a weighted combination that includes the StarMine Analyst Revisions Model, Earnings Quality, Intrinsic Value, Relative Value and Price Momentum Rankings as well as proximity of current stock price to its 52 week high price. The top decile of each TRBC (Refinitiv Business Classification) sector and region (US/International) pairing becomes the Index. Each sector-region pairing within the Index is allocated the same weight as in the filtered Refinitiv Global Developed Index (the parent Index). The Index uses an asymmetric rebalance rule such that securities are only added to the index if they are in the top decile of their sector-region group at the rebalance date and are removed from the Index only after they drop out of the top quartile for their sector-region group.

### **2.3 Security types**

Only the following security types are included in the Index: All Ordinary Shares, Fully Paid Ordinary Shares, Units, Preference Shares, Stapled Securities, Depository Receipts, Preferred Shares, Participation Shares, CHESSE Depository Interests, Genussscheins are included.

### **2.4 Country Filter**

- Chinese 'H' shares are removed.
- Issues where the company name contains any of the following is removed:  
ANHUI, BEIJING, CHINA, CHONGQING, FUJIAN, GANSU, GUANGDONG, GUANGXI ZHUANG, GUANGZHOU, GUIZHOU, HAINAN, HEBEI, HEILONGJIANG, HENAN, HUBEI, HUNAN, JIANGSU, JIANGXI, JILIN, LIAONING, NINGXIA HUI, QINGHAI, SHAANXI, SHANDONG, SHANGHAI, SHANXI, SHENZHEN, SICHUAN, TIANJIN, TIBET, XINJIANG UYGHUR, YUNNAN, ZHEJIANG.
- Any issue where the headquarters country is not in the aforementioned list of 23 developed countries or in any of "Bermuda", "British Virgin Islands", "Cayman Islands", "Luxembourg", "Macau", "Jersey" or "United States Virgin Islands" is removed.
- Any issue where the country of exchange is not one of the 23 developed countries in the list stated above is removed.
- Any issue where the StarMine primary country of risk is not one of the designated 23 developed countries or in any of "Bermuda", "British Virgin Islands", "Cayman Islands", "Luxembourg", "Macau", "Jersey" or "United States Virgin Islands" is removed.

### **2.5 Country Designation**

- Issues are assigned to a country based on their country of exchange.
- In case country of exchange is unavailable, then StarMine primary country of risk is used, failing which

country of headquarters is used.

## 2.6 TRBC Business Sector Adjustments

- Adjustments are made to the Refinitiv Business sectors based on the size of the sectors and economic logic in order to increase the efficacy of the deciding process. Select sectors with similar economic properties are merged, and a new technology communications sector is utilized. The technology communications sector is in line with comparable offerings by peer classification schemes.
  - Candidates for which TRBC codes cannot be retrieved are removed
  - Certain TRBC classifications are combined:
    - Industrial Conglomerates (5230) merged into Industrial Groups (5210)
    - Renewable Energy (5020) merged into Energy - Fossil Fuels (5010)
    - Uranium (5030) merged into Energy - Fossil Fuels (5010)
    - Mineral Resources (5120) merged into Applied Resources (5130)
    - Mortgage REITS (5540304015) merged into Banking & investment Services (5510)
    - Investment Holding Companies (5560) merged into Banking & Investment Services (5510)
    - Collective Investments (5550) merged into Banking & Investment Services (5510)
    - Automobiles & Auto Parts (5310) merged into Cyclical Consumer Products (5320)
    - Food & Drug Retailing (5430) merged into Personal & Household Products & Services (5420).
  - Certain classifications are placed into a new grouping called Technology Communications:
    - Telecommunication Services (5810) merged into Technology Communications (5790)
    - Media & Publishing (533020) merged into Technology Communications (5790)
    - Online Services (57201030) merged into Technology Communications (5790)

### 3. Data Selection and Index construction

- The Affinity logic is then applied to do constituent selection and weighting:
  - Equities are given a regional designation of either US or INTL. Any equity not domiciled in the US is considered INTL.
  - The “Affinity score” is calculated for each equity:
    - $\text{Affinity.Valuation} = \text{average}(\text{PriceToIntrinsicValueRegionRank}, \text{GlobalRelativeValueRank})$ 
      - Do not score if both IV and RV are NULL
    - $\text{Affinity.Analyst.Expectations} = (\text{ARMGlobalRank} * 0.824) + (\text{ARMRevenueRank} * 0.176)$ 
      - Do not score if ARM Global Rank is NULL. Shift weight to 100% ARM Global Rank if ARM Revenue Rank is NULL
    - $\text{Affinity.Price.Momentum} = (\text{GlobalPriceMomentumRank} * (2/3)) + (\text{ChangeRank} * (1/3))$ 
      - Do not score if Global Price Momentum Rank or % from 52 Week High Rank is NULL. If either is NA, value for Price Momentum will be NULL.
    - $\text{Affinity.Score} = (\text{Affinity.Valuation} * 0.37) + (\text{Affinity.Analyst.Expectations} * 0.37) + (\text{Affinity.Price.Momentum} * 0.13) + (\text{RegionalEarningsQualityRank} * 0.13)$
  - Using the free float market cap, determine the preliminary weight for each candidate.
  - Initialize “Equal Active” weight to 0
  - For each sector-region key (e.g., 5120:US):
    - Identify the number of equities with non-NA scores
    - Calculate deciles:
      - If there are 10 or more equities in the sector region AND 10 or more equities with non-NA scores, calculate deciles based on the Affinity score (where 1 is the best and 10 is the worst).
      - If the number of non-NA scores is greater than 0, assign the top ranked equity to decile 1
      - If there are no non-NA scores, no deciles assignments are made.
    - Calculate quartiles:
      - If there are 4 or more equities in the sector region AND 4 or more equities with non-NA scores, calculate quartiles based on the Affinity score (where 1 is the best and 4 is the worst).
      - If the number of non-NA scores is greater than 0, assign the top ranked equity to quartile 1
      - If there are no non-NA scores, no quartile assignments are made.
    - Select constituents

- Applies to historical rebalancing only: if first rebalance, constituents will be those equities in decile 1.
- For all subsequent rebalances, retain equities present in previous rebalance that remain in the top quartile. Based on the expected size of the top decile, and the number of equities dropped after falling out of the top quartile, replace using new candidates from the top decile:
  1. Determine how many equities should make up the top decile (“target count”).
  2. Using the previous rebalance, identify the “drops” and “keeps” (old constituents that [are not | are] in the top quartile for the current candidate list)
  3. Mark “keeps” as being in decile 1 (so they pass the final screen).
  4. Identify as the “fill list” all those candidates currently in decile 1 that were not in the previous rebalance; sort by Affinity score.
  5. Determine number of replacements allowed (target count – number of equities held over from previous rebalance)
  6. For equities on fill list--from the top, down to the number of replacements allowed—leave decile as 1. Any excess equities in the fill list are marked as being in decile “99” so they do not pass the final screen
- Determine weights for selected constituents (i.e., candidates marked as decile 1)
  1. Sum the market cap weights for equities in decile 1.
  2. Identify number of equities in decile 1.
  3. Sum the market cap weight for all equities in the sector-region
  4. Amount of weight to redistribute is (3)-(1).
  5. Divide (4) by (2). This is the weight to be redistributed to each equity.
  6. To each equity in decile 1, add (5) to the market cap weight. This will be the “Equal Active” weight.
  7. As a final check, ensure that equal active weight going out for the sector is equal to the initial market cap weight for the sector-region.

## 4. Calculation Methodology

The index follows the methodology of Refinitiv Global Equity Indices. For details on data requirement, construction and calculation methodology of Refinitiv Global Equity Indices, please refer Refinitiv Global Equity indices Methodology document [here](#).

## **5. Maintenance**

### **5.1 Daily Index Maintenance**

The securities which form the Index are re-weighted daily as changes in the free float market capitalization of the underlying securities change.

The index is maintained on a daily basis by a dedicated support team. This team is in direct collaboration with the Refinitiv Data Operations Global Corporate Actions teams and is responsible for identifying all corporate action events that affect the capital structure of a constituent in the index including stock splits, delisting, and symbol changes and ensure these changes are implemented into the index. The team also monitors divisor movements and performs constituent pricing comparisons between independent constituent price sources to ensure the accuracy of the index return values. Where a security in the Index is subject to a merger or acquisition activity or delisting, the security will be deleted from the Index as set out in the Refinitiv Corporate Action Methodology that is available [here](#).

### **5.2 Index Rebalance**

Rebalance schedule is semi-annual, scheduled for 1 week after the rebalance of the Parent Index which occurs on the first Monday of April and October. This rebalance is the major source of additions and deletions to index. There are no additions to the Index outside of the re-balance process.

## **6. Quality Control**

### **6.1 Quality Control**

Refinitiv has quality control procedures in place to monitor any prices, whether they are obtained from a regulated exchange or other market, prior to calculation of indices as well as prior to publication.

### **6.2 Re-Statement Policy**

A retrospective recalculation will only be made when a manifest and material error has been identified. Any retrospective recalculation will be notified to users via the alert system on Refinitiv Eikon.

### **6.3 Insufficient Data and Market Disruptions**

Refinitiv endeavors to develop and publish indices only where Refinitiv has a high level of confidence of long-term availability and access to the necessary data to administer the indices.

A “Market Emergency” is herein defined as any unscheduled and extraordinary condition in which liquidity in the markets used to source input data is interrupted (such as an event resulting in the unscheduled closing of futures exchanges). Should a Market Emergency occur, Refinitiv reserves the right to take such action with respect to the Refinitiv Global Equity Indices as it deems appropriate given the circumstances and after consulting with the Index Action Committee as appropriate.

Refinitiv will attempt to notify interested parties of any such actions as well in advance as is practicable. There is no assurance, however, that following a Market Emergency, the actions taken in response to such Market Emergency, or any other force majeure event, will not have an adverse effect on the value of the Refinitiv Equity Indices or the way they are calculated.

## 7. Governance

There are two committees to oversee the Index. One is at Affinity Investments that defined the index. The other is at Refinitiv Index Business that constructs the index and ensures that the attributes the index claims to possess are indeed present. This committee also owns index rebalances.

### 7.1 Committee at Affinity Investments

The committee members at Affinity Investments are:

**Gregory Lai, CFA**

CEO and Lead Portfolio Manager

**Iman Movahed**

Senior Portfolio Manager

**Pushkar Murthy, CFA**

Senior Portfolio Manager

**Rachel Yu**

Trader

### 7.2 Index Action Committee at Refinitiv

There is an index action committee (IAC) for Refinitiv Indices that oversees the Index. It is composed of the Refinitiv Equity Indices Senior Index Manager, Refinitiv Commodities Senior Index Manager, Head of Index FX Benchmarks Research and Design, Head of Data Operations and Development Manager.

The main activity of this Index Action Committee is to ensure that the attributes the index claims to possess – are indeed present. The Index Action Committee also deals with unusual corporate actions which are not handled by the pricing methodology or by the internal data management team that makes hand- adjustments to the index for items such as mergers and delistings. These reviews take place on a quarterly basis.

### 7.3 Benchmark Manager

The Benchmark Manager is a subject matter expert and is responsible for the integrity and quality of the Index which includes the following specific responsibilities:

- Interpreting the Index Methodology and implement the change procedure (if any)
- Reviewing feedback received from the Index stakeholders.
- Developing and implementing changes to the Index Methodology pursuant to feedback from Index stakeholders or in response to market events, subject to Section 8.2, Cessation of an Index.
- Managing interaction with Index stakeholders

#### **7.4 Index Stakeholder Feedback**

The Benchmark Manager may seek the views of market participants and other Index stakeholders on a bilateral basis from time to time or through one or more Index Advisory Groups. Issues on which the Benchmark Manager may consult Index stakeholders include conditions in the underlying markets that the Index represents, the representativeness of the input data used in the determination of the Index, the performance of the index with respect to the underlying markets that it represents, potential changes to the index calculation methodology, the weight calculation algorithm and exceptional market events.

#### **7.5 Feedback**

Your questions about the document, suggestions, and contributions are welcome. Please address enquiries to: [IndexManagers@Refinitiv.com](mailto:IndexManagers@Refinitiv.com).

## **8. METHODOLOGY REVIEWS AND CHANGE PROCEDURES**

### **8.1 Review of the Methodology**

The Refinitiv Global Equity Indices Methodology is reviewed once per year and, if required by market events, more frequently. Any potential changes to the Methodology are reviewed by the Index Action Committee.

### **8.2 Cessation of An Index**

Refinitiv aims not to stop the publication of any index that is used as a benchmark.

For those cases where Refinitiv does decide to stop the publication of an index, Refinitiv will look to find a suitable successor to its role as Administrator of the index. Should no successor be found, Refinitiv will conduct a consultation with any relevant stakeholders, the Index Action Committee and the Refinitiv Independent Oversight Committee. Refinitiv will publish a notice on its website about the possibility of stopping the publication of the Index and inviting anyone to provide feedback.

Such notice will be posted at least 6 months, where possible, prior to cessation of publication of the index, or on a best efforts basis for circumstances beyond the control of Refinitiv. After the consultation period, Refinitiv will publish externally the timeline for cessation. Internally, detailed operating procedures will be drafted to ensure a managed cessation.

**CONTACT US:**

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