

Indxx Hedged Dividend Income Index

Methodology

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Indxx Hedged Dividend Income Index

Index Description

The Hedged Dividend Income Index is a sector neutral index which is designed to measure the performance of a strategy utilizing long positions on high dividend paying companies and short positions on no or low dividend paying companies.

Index Eligibility Criteria

Market Capitalization

Minimum market capitalization is set at US\$ 1 billion

Liquidity

- Minimum average daily turnover for 6 months is set at US\$ 5 million
- The stock should be traded for at least 90% of the total trading days over the last 6 months in its respective stock exchange

Domicile

US companies. A US company, for index purposes, should have the following characteristics:

- Domiciled in the US
- The security must be listed on a US stock exchange

Public Float

Public float or free float should be at least 40% of the total shares outstanding of each member

Sectors

Consumer Discretionary, Consumer Staples, Energy, Financials, Healthcare, Industrials, Information Technology, Materials, Telecommunication Services, Utilities

Stock Selection

After applying the above criteria, the top 1000 stocks by market cap are shortlisted for creation of long and short portfolio

Long Portfolio

- All companies which have paid dividends consistently for the last 3 years, without any drop in the amount of dividends paid, are eligible for inclusion in the long portfolio

- Among eligible companies, the top 100 companies by dividend yield are considered to form the 100 stock long portfolio
- The long portfolio is equal-weighted and 100% long exposure relative to the index value
- A generic sector cap of 25% is applied to the long portfolio
- REITs & MLPs should not constitute more than 15% of the long portfolio

Short Portfolio

- Companies which have paid no or low dividends are eligible for inclusion in the short portfolio
- Among eligible companies, the companies with the same sector representation as the long portfolio are considered to form the 200 stock short portfolio
- In the case of same dividend yield, companies with higher market cap are given priority
- Biotechnology companies will not be considered for inclusion in the short portfolio
- The short portfolio is equal-weighted and 50% short exposure relative to index value
- If there are not enough constituents available in a short portfolio sector, the weights of eligible constituents in that sector are increased to match 50% of the overall sectoral weight of the long portfolio
- To achieve sector neutrality, it is ensured that sector representation in the short portfolio is matched to 50% of the sectoral weight of each in the long portfolio
- There can be no overlap of constituents in the long and short portfolios

Cash Portfolio

- US 3-month Treasury Bills are considered as the cash component
- The cash portfolio is 50% long relative to the index value

Weighting

All constituents in the long and short portfolios are equally weighted during each monthly rebalance and semi-annual reconstitution.

Rebalancing & Reconstitution

Monthly Rebalancing

- Long and short portfolios are rebalanced after the close of US markets on the last business day of each month
- At start of each month, long, short & cash positions are reset to the end of the month index value, where 100% is allocated to the long position, and 50% each is allocated to the short and cash positions
- Constituents in the long & short portfolios are assigned equal weights at each rebalancing

Quarterly Reconstitution

- Long & short portfolios are reconstituted after the close of US markets on the last business day of March, June, September & December.

- At the start of each period, long, short & cash positions are reset to the end of the year index value, where 100% is allocated to the long position, and 50% each is allocated to the short and cash positions
- Constituents in the long & short portfolios are assigned equal weights at each reconstitution

Index Creation Process

A master list of securities is initially prepared from the applicable index universe of US domiciled securities by applying the criteria of market capitalization, liquidity and float. The top 1,000 companies that have market capitalization of at least US\$ 1 billion and which satisfies (i) 6 month average daily turnover of at least US\$ 5 million and traded at least 90% of the total trading days for 6 months on its respective stock exchange or (ii) having at least 40% public float are considered to obtain a "Selection List," which is grouped into ten sectors.

Using the Selection List, the long portfolio is constituted first. Companies are checked for consistent dividends, and eligible companies are ranked in descending order based on their most recent 12 month dividend yields. The top 100 companies are then used to create the long portfolio, subject to a maximum generic sector cap of 25% and REITs & MLPs should not constitute more than 15% of the portfolio. The 100 constituents are then equal-weighted so that the long portfolio has 100% exposure relative to the index value.

The short portfolio is then constructed using the original Selection List. Companies that are part of the long portfolio are excluded, and the remaining companies are ranked in ascending order of dividend yield (including those that paid no dividend). In the case of the same dividend yield, companies with higher market cap are given priority. The short portfolio is then constructed to match the sector representation of the long portfolio, but with twice the number of companies in each sector, and a total of 200 portfolio constituents. The 200 constituents are then equal-weighted so that the short portfolio has 50% short exposure relative to the index value. Each short portfolio sector also has 50% short exposure relative to each long sector. In the event that there are not enough constituents of a short portfolio sector to match the long portfolio sector exposure at 50%, the weights of the eligible constituents in that short sector are increased so that the short sector is 50% of the long sector.

The cash portfolio is constructed using US 3 month Treasury Bills. At each rebalancing date, the last issued 3 Month Treasury Bill is considered as the cash instrument. The cash portfolio is allocated 50% exposure relative to the index value.

Corporate Actions

Corporate actions (such as stock splits, dividends, spin-offs and rights offerings) are applied on the ex-date. The impact and adjustment of various corporate actions are discussed below.

Dividends

Meaning

Dividends are payments made by a corporation to its shareholder members. It is the portion of corporate profits paid out to stockholders. When a corporation earns a profit or surplus, that money can be put to two uses: it can either be re-invested in the business (called retained earnings), or it can be paid to the shareholders as a dividend. Many corporations retain a portion of their earnings and pay the remainder as a dividend.

Dividends must be "declared" (approved) by a company's Board of Directors each time they are paid. For public companies, there are four important dates to remember regarding dividends.

1. **Declaration Date:** Is the day the Board of Directors announces its intention to pay a dividend. On the declaration date, the Board will also announce Date of Record and Payment Date.
2. **In-dividend Date:** Is the last day, which is one trading day before the ex-dividend date, where the stock is said to be cum dividend ('with dividend').
3. **Ex-dividend Date:** Is the day on which all shares bought and sold no longer come attached with the right to be paid the most recently declared dividend. Typically, its 2 trading days before the record date for U.S. securities.
4. **Payment Date:** Is the day when the dividend checks will actually be mailed to the shareholders of a company or credited to brokerage accounts.

Impact on Index

Dividends payments impact the total return index calculation. The price return index calculations as well as the number of shares remain unaffected.

Adjustment in the Index

Dividend payments will be reinvested in the total return index on the ex-dividend date. This means that going forward this additional money will be used to buy additional shares in the future.

Stock Split

Meaning

All publicly-traded companies have a set number of shares that are outstanding on the stock market. A stock split is a decision by the company's board of directors to increase the number of shares that are outstanding by issuing more shares to current shareholders. For example, in a 2-for-1 stock split, every shareholder with one stock is given an additional share. So, if a company had 10 million shares outstanding before the split, it will have 20 million shares outstanding after a 2-for-1 split.

A stock's price is also affected by a stock split. After a split, the stock price will be reduced since the number of shares outstanding has increased. In the example of a 2-for-1 split, the share price will be halved. Thus, although the number of outstanding shares and the stock price change, the market capitalization remains constant. A stock split is usually done by companies that have seen their share price increase to levels that are either too high or are beyond the price levels of similar companies in their sector. The primary motive is to make shares seem more affordable to small investors even though the underlying value of the company has not changed.

Impact on Index

Stock splits impact the number of shares in both the total and price return indices. There is no impact on the index divisor.

Adjustment in the Index

Stock splits will be adjusted for in the total and price return indices on the ex- date. The number of shares will increase times the adjustment factor for the split. For example if a company has announced a 2-for-1 stock split, the adjustment factor for the same will be $2/1=2$. The number of shares in this case will be multiplied by 2.

Bonus Issue of Shares

Meaning

A bonus share is a free share of stock given to current/existing shareholders in a company, based upon the number of shares that the shareholder already owns at the time of announcement of the bonus. While the issue of bonus shares increases the total number of shares issued and owned, it does not increase the value of the company. Although the total number of issued shares increases, the ratio of number of shares held by each shareholder remains constant. New shares are issued to shareholders in proportion to their holdings. For example, the company may give one bonus share for every five shares held.

Impact on Index

Bonus issue of shares impacts the number of shares in both the total and price return indices. There is no impact on the index divisor.

Adjustment in the Index

Bonus issue of shares will be adjusted for in the total and price return indices on the ex-date. The number of shares will increase times the adjustment factor for the bonus issue. For example if a company has announced a 100% bonus, the adjustment factor for the same will be 2 i.e. one bonus share for every one share held. The number of shares in this case will be multiplied by 2.

Rights Issue

Meaning

Rights issue is an invitation to existing shareholders to purchase additional new shares in the company. More specifically, this type of issue gives existing shareholders securities called "rights", which, will, give the shareholders the right to purchase new shares at a discount to the market price on a stated future date. The company is giving shareholders a chance to increase their exposure to the stock at a discount price. But until the date at which the new shares can be purchased, shareholders may trade the rights on the market the same way they would trade ordinary shares. The rights issued to a shareholder have a value, thus compensating current shareholders for the future dilution of their existing shares' value.

Impact on Index

Rights issue impacts the number of shares in both the total and price return indices. There will be an impact on the divisors in both the total and price return indices.

Adjustment in the Index

Rights issue will be adjusted for in the total and price return indices on the ex- date. However the adjustment for rights issue will take place only when the subscription price is less than the stock price on ex-date. The subscription price is the price at which the company gives its existing shareholders the right to purchase new shares.

Spin Off

Meaning

Spin off is the creation of an independent company through the sale or distribution of new shares of an existing business/division of a parent company. A spinoff is a type of divestiture. Businesses wishing to 'streamline' their operations often sell less productive or unrelated subsidiary businesses as spinoffs. The spun-off companies are expected to be worth more as independent entities than as parts of a larger business.

In most cases, the parent company or organization offers support doing one or more of the following:

- Investing equity in the new firm,
- Being the first customer of the spin-out (helps to create cash flow),
- Providing incubation space (desk, chairs, phones, internet access, etc.) or
- Providing services such as legal, finance, technology, etc.

Impact on Index

Spin off impacts the divisors in both the total and price return indices.

Adjustment in the Index

The adjustment for spin off is done on a case to case basis. The Index Committee will decide on one of the following options based on internal research:

- The parent company remains in the index and the spun off entity is deemed ineligible for inclusion
- The parent company is deemed ineligible to remain in the index however, the spun off entity is deemed eligible for inclusion
- Neither the parent company nor the spun off entity are eligible to be in the index. In this case the Index Committee will decide whether to liquidate the parent company in the index or replace it with the next best constituent according to the index methodology

Delisting

Meaning

Delisting refers to the practice of removing the stock of a company from a stock exchange so that investors can no longer trade shares of the stock on that exchange. This typically occurs when a company goes out of business, declares bankruptcy, no longer satisfies the listing rules of stock exchange, or has become a private company after a merger or acquisition, or wants to reduce regulatory reporting complexities and overhead, or if the stock volumes on the exchange from which it wishes to delist are not significant.

Impact on Index

Delisting of a security impacts the divisors in both the total and price return indices.

Adjustment in the Index

In the event a company is de-listed from the listed exchange, it will be removed from the index. The Index Committee will decide whether to liquidate the stock in the index or to replace it with the next best constituent according to the index methodology.

Acquisition

Meaning

A corporate action in which a company buys most, if not all, of the target company's ownership stakes in order to assume control of the target firm. Acquisitions are often made as part of a company's growth strategy whereby it is more beneficial to take over an existing firm's operations and niche compared to expanding on its own. Acquisitions are often paid in cash, the acquiring company's stock or a combination of both. Acquisitions can be either friendly or hostile.

Impact on Index

Acquisition of a security impacts the divisors in both the total and price return indices.

Adjustment in the Index

In the event a company is acquired, it will be removed from the index. The Index Committee will decide whether to liquidate the stock in the index or to replace it with the next best constituent according to the index methodology.

Merger

Meaning

Merger is when two companies combine together to form a new company altogether. In other words, it is the combination of two or more companies, generally by offering the stockholders of one company securities in the acquiring company in exchange for the surrender of their stock.

Impact on Index

Merger impacts the divisors in both the total and price return indices.

Adjustment in the Index

In the event a company is merged, it will be removed from the index. The Index Committee will decide whether to liquidate the stock in the index or to replace it with the next best constituent according to the index methodology.

Bankruptcy

Meaning

Bankruptcy is a legal proceeding involving a person or business that is unable to repay outstanding debts. The bankruptcy process begins with a petition filed by the debtor (most common) or on behalf of creditors (less common). All of the debtor's assets are measured and evaluated, whereupon the assets are used to repay a portion of outstanding debt. Upon the successful completion of bankruptcy proceedings, the debtor is relieved of the debt obligations incurred prior to filing for bankruptcy.

Impact on Index

Bankruptcy of a security impacts the divisors in both the total and price return indices.

Adjustment in the Index

In the event a company is Bankrupt, it will be removed from the index. The Index Committee will decide whether to liquidate the stock in the index or to replace it with the next best constituent according to the index methodology.

Temporary Delisting/Prolonged Trading Suspension

Meaning

A temporary delisting/trading suspension occurs when a security stops trading on the stock exchange for a certain time period. This usually occurs when a publicly-traded company is going to release significant news about itself. The suspension in trading for the affected security gives investors time to review the news and assess its impact.

Impact on Index

A temporary delisting/trading suspension of a security impacts the divisors in both the total and price return indices.

Adjustment in the Index

In the event a company is temporary delisted or trading suspension has taken place, it will be removed from the index. The Index Committee will decide whether to liquidate the stock in the index or to replace it with the next best constituent according to the index methodology.

Index Data

Total Return Index

Ordinary cash dividends are applied on the ex-date for calculating the total return index. "Special dividends" are those dividends that are outside of the normal payment pattern established historically by the issuing corporation. Whether a dividend is funded from operating earnings or from other sources of cash does not affect the determination of whether it is ordinary or special. "Special dividends" are treated as corporate actions with offsetting price and divisor adjustments; the total return index reflects both ordinary and special dividends.

Price Return Index

No dividends are applied to calculate the price return index.

Index Policy

Index Committee Policy

The Index Committee is responsible for setting policy, determining index composition, and administering the indices in accordance with the Indxx index methodology. The Index Committee reserves the right to use qualitative judgment to include, exclude, adjust, or postpone the inclusion of a stock. Continued index membership of a constituent is not necessarily subject to the guidelines provided in each of the Indxx index methodology. A stock may be considered for exclusion by the Index Committee on the basis of corporate governance, accounting policies, lack of transparency and lack of representation, despite meeting all the criteria provided in each of the Indxx index methodology.

Announcements

Announcements of additions and deletions of constituents, due to various corporate actions mentioned above, in the middle of the year will be decided by the Index Committee. This will be communicated to the client well ahead of time. Also important news items as well as corporate actions with respect to all the constituents of the index will be informed to the client on a weekly basis.

Holiday Schedule

The index is calculated when the U.S. equity markets are open. In situations where an exchange is forced to close early due to unforeseen events, the index will be calculated based on the closing prices published by the exchange, or if no closing price is available, the last regular trade reported for each stock before the exchange closed.

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