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Introduction to Equity indexes

The equity index is the measure of the value of a specific shares portfolio in a market (continent, country, or sector). The first value (base value) is often set to 100 or 1000 from the beginning (base date) of the publication to make the comparison and the performance calculation easier.

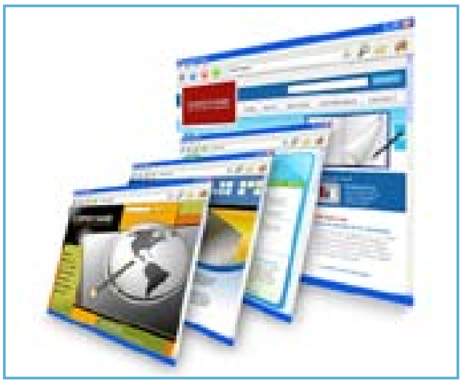
Equity indexes are calculated formerly by the stock exchanges to represent their markets.

They are then provided by financial firms or specialized indexes providers (Dow Jones, S&P, MSCI, FTSE, STOXX, ...) in different types, forms, version for different types of users. For illustration purpose, these indexes providers often calculate several hundred thousand indexes. Indexes are used by people for different purposes: financial analysts and researchers, fund managers, retail or professional investors, derivatives products users.

Types of equity indexes

Equity indexes are classed into 7 main types:

- Representing indexes
- Investable indexes
- Sector indexes
- Size indexes
- Strategy indexes
- Style indexes
- Thematic indexes



History

The Dow Jones Industrial Average also called the Industrial Average, or simply the Dow, was founded on May 26, 1896 by Wall Street Journal editor and Dow Jones & Company co-founder Charles Dow. The average is named after Dow and one of his business associates, statistician Edward Jones. It is the price-weighted average of 30 constituents, and eventually adjusted by split events.

In the sixties, the US market had more than thousands of stocks and this calculation method had since then become inapproriate: the weight of a share in the basket should have been proportional to the capitalization in the market. This led to a new era of market-capitalization weighting.

This method is often favoured by the framework of the Capital Asset Pricing Model (CAPM) in modern financial theory. Given a level of risk, investor's goal is to seek out investment opportunities with highest total return. William Sharp CAPM, in 1964, based on simplifying assumptions, concluded that market capitalization weighting portfolio was efficient and optimal. The S&P 500 index launchedon March 4, 1957 in the market capitalization weighting form, and the weighting was switched to the free float adjusted capitalization weighting to make the index better investable for the users.

Stock indexes picture

Main types

Equity indexes are classed into 7 main types:

1. Representing indexes

Include all the equities of the market. They are called All-Share, Composite or Total Market Indexes.

- S&P US Total Market index : includes all common equities listed on the NYSE (including NYSE Arca), the NYSE Amex, the NASDAQ Global Select Market, the NASDAQ Global Market and the NASDAQ Capital Market (3848 constituents as from November 4, 2011).

Vietnam equity market has 3 official indexes representing different markets:

- VNI index is a full capitalization weighted index of all the companies listed on Ho Chi Minh City Stock Exchange (HOSE). The index was created with a base value of 100 as of July 28, 2000.
- HXN index is a full capitalization weighted price index comprised of stocks traded on Hanoi Stock Exchange (HNX). The index was created with a base value of 100 as of July 14, 2005.
- On June 24, 2009, HNX officially launched the Unlisted Public Company Market (UPCoM) and the index for this market is UPCoM index . This index was calculated from the first day of official trading session of the market (June 24, 2009) with the base value of 100.

Recently, Ho Chi Minh City Stock Exchange has constructed and launched VN30 index, a free-float adjusted market cap-weighted index of 30 stocks that have the highest market cap and liquidity listed on HOSE. The constituents represent about 80% of HOSE's market cap and 60% of HOSE's turnover.

The index's base value is 313,34 as of Jan 2, 2009 with a capping of 10%. The first trading session started on Feb 6, 2012.

These indexes' functions measure the total value of the market and its evolution. In practice, they are very difficult to be invested in

2. Investable or Tradable indexes

Investable indexes should be designed with respect to the following purposes:

- Number of constituents : is lower than the composite index, but the representative of the market should be high (between 75% and 80% of the total market, the S&P 500 represents about 75% of the US equity market)
- Size : the main indexes often include large cap companies because they are followed by numerous financial analysts and researchers as their information are better and more complete than small caps companies.
- Liquidity : The index fund managers should be able to buy or sell the index or a part of the index in once to reduce the trading cost.
- Shares availability (free float) : from 2005, all investable indexes are switched to free float weighting to avoid the situation of rarity, implying an increase of buying prices and a decrease of selling prices.
- Costs (trading and rebalancing) : the representing index is adjusted for every corporate event to reflect the market movement. Such a strategy is costly because of numerous composition's rebalancing and will eventually reduce the final performance of the investment. For investable indexes, corporate events are grouped each quarter if they are not significant.
- Rules driven : Index methodology should follow the rules without subjective criteria. The index changes are then predictable and transparent.
- History availability : 4 or 5 years of history should be available for users to do tests and analysis before deciding to use the index or not.
- Regulation : some regulation constraints should be taken into account of the index management rules. The capping rule, meaning the maximum weight of a component in the index should not be higher than a specific ratio, is widely used

in Europe in accordance with the European Directives and is seen as a "quality" label.

Some examples:

- S&P 500 : The S&P 500® has been widely regarded as the best single gauge of the large cap U.S. equities market since the index was first published in 1957. The index has over US$ 5.58 trillion benchmarked, with index assets comprising approximately US$ 1.31 trillion of this total. The index includes 500 large companies in leading industries of the U.S. economy, capturing 75% coverage of U.S. equities.
- S&P MidCap 400® : provides investors with a benchmark for mid-sized companies. The index covers over 7% of the U.S. equity market.
- S&P SmallCap 600 : covers approximately 3% of the domestic equities market.

3. Sector indexes

More specialized indices exist tracking the performance of specific sectors of the market. The allocation of a company to a sector is an expert task. There are two main sector classifications in the world:

- ICB (Industry Classification Benchmark) system is used by FTSE, STOXX, Dow Jones and numerous stock exchanges.
- GICS (Global Industry Classification Standard) methodology is adopted by MSCI and S&P indexes providers.

While the ETF industry has been expanding, the business for index providers has also exploded along with new product offers , especially in term of strategy and thematic indexes. Strategy indexes are those that track performance of a complex trading strategy.

4. Size indexes

For those investors looking for performances with higher risk level, Mid cap and Small cap are then preferred to Large cap.

5. Strategy indexes

Strategy indices are indices that track the performance of a complex trading strategy. These strategies until now are reserved to professional investors only. But via the ETF instruments, the strategy index could be bought or sold like a stock and is also usable by retailers. They offer an alternative investment to the classical capitalization weighted country, market or sector indexes. Volatility, Dividend, Short, Beta, Alpha,... indexes are some examples.

6. Style indexes

Style indexes bring out difference of performance between "Value" and "Growth" stocks. Value securities are characterized as securities of companies with lower-than-average valuation, while growth securities are companies with higher-than-average future growth estimates.

7. Thematic indexes

Thematic indexes are broader then sector indexes. They can cover subjects like Clean Energy, Luxury, Enterprise, Precious Metals, and Global Exchanges ...

IFRC indexes.

Usage and indexes versions

1. Representative vs Tradable indexes

Representative indexes are useful for providing a broad picture of the market at the beginning. Later, as the market matures, the representative index is then replaced by the tradable index.

2. Price vs Total return indexes

In equity market, popular quoted indices are usually price indices. The total return index is the price index plus the reinvested dividend. Derivatives (option, futures contracts) users prefer the price index. Portfolio managers hold shares physically and receive dividends. Hence, they adopt total return index which reflects the reality of their investment.

3. Local vs other currencies converted indexes

For the foreign investors, their portfolio should be adjusted by the exchange rates ro reflect an effective performance. A negative variation of the change could erase or turn their investment return into negative.

IFRC Indexes

Intelligent Financial Research & Consulting (IFRC) is a multi-services company. IFRC's principal products and services are Financial Services and Products for Capital Market, Research, Training, Management Consulting and IT services. Customised index, created by our team of index professionals, is our flagship product.

We are committed to provide the highest quality services and products throughout the index creation and maintenance process such as: data mining, design, development, dissemination, maintenance, support, education and research.

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