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  | [www.thechinfamily.hk](http://www.thechinfamily.hk)

[info@thechinfamily.hk](mailto:info@thechinfamily.hk) | [www.hkiec.hk](http://www.hkiec.hk)



# Understanding Index Tracking ETF

錢家有道  
the Chin family

[www.thechinfamily.hk/investment](http://www.thechinfamily.hk/investment)



Unlike traditional index tracking exchange-traded funds (ETFs) that gain exposure to the underlying index by investing in the constituent stocks or bonds of the index, more and more ETFs invest in financial derivative instruments designed to replicate the performance of the underlying index. This second generation of ETFs – known as synthetic ETFs – has very different risk profiles.

### How does an ETF track an index?

To achieve the index-tracking objective, an ETF manager may adopt one or more of the following index replication strategies:

- investing in a portfolio of securities that fully replicates the composition of the underlying index;
- investing in a portfolio of securities featuring a high correlation with the underlying index, but is not exactly the same as those in the index; or
- investing in financial derivative instruments, such as swaps and performance-linked notes, to replicate the index performance.

ETFs typically have to use synthetic replication to gain access to those markets that impose

restricted access to overseas investors (such as the China A-share market and the Indian market). This strategy is also sometimes used by an ETF to raise efficiency and reduce cost, even if the markets are accessible by overseas investors.

### What is counterparty risk?

Synthetic ETFs typically invest in over-the-counter derivatives issued by counterparties. Such a synthetic ETF may suffer losses potentially equal to the full value of the derivatives issued by the counterparty upon its default.

Synthetic ETFs are therefore exposed to both the risks of the securities that constitute the index as well as the credit risk of the counterparty that issues the financial derivative instruments for replicating the performance of the index.

Some synthetic ETFs invest in financial derivatives issued by a number of different counterparties in order to diversify the counterparty credit risk concentration. However, the more counterparties an ETF has, the higher the mathematical probability of the ETF being affected by a counterparty default. If any one of the counterparties fails, the ETF may suffer losses.

You should also be aware that the issuers of these derivatives are predominantly international financial institutions and this, in itself, may pose a concentration risk.

For example, if a crisis strikes, affecting the financial sector, it is possible that the failure of one derivative counterparty of an ETF has a “knock-



on” effect on other derivative counterparties of the ETF. As a result, an ETF could suffer a loss substantially more than its expected exposure in the event of a single counterparty default.

Some synthetic ETF managers, however, only acquire financial derivatives from one or a few counterparties. These managers may seek to reduce an ETF’s net exposure to each single counterparty by requiring the counterparty(ies) to provide collateral. In this case, you are still exposed to the counterparty risk, to the extent it is not covered by the collateral.

Furthermore, when the ETF seeks to exercise its right against the collateral, the market value of the collateral could be substantially less than the amount secured if the market dropped sharply before the collateral is realised, thereby resulting in significant loss to the ETF.

## What are the other risks?

**Liquidity risk** - Listing or trading on the Stock Exchange of Hong Kong (SEHK) does not in, and of itself, guarantee that a liquid market exists for an ETF.

Besides, a higher liquidity risk is involved if an ETF invests in financial derivative instruments that are not actively traded in the secondary market and where price transparency is not as easily accessible as physical securities. This may result in a bigger bid and offer spread.

These derivatives are also susceptible to more price fluctuations and higher volatility. Hence, they can be more difficult and costly to unwind

early, especially when the derivatives provide access to a restricted market where liquidity is limited in the first place.

**Market risks** - An ETF is exposed to the economic, political, currency, legal and other risks of a specific sector or market related to the index that it is tracking.

**Tracking error** - This refers to the disparity between the performance of the ETF as measured by its net asset value (NAV) and the performance of the underlying index.

Tracking error may arise due to various factors. These include:

- failure of the ETF’s tracking strategy;
- the impact of fees and expenses;
- foreign exchange differences between the base currency or trading currency of an ETF and the currencies of the underlying investments; or
- corporate actions such as rights and bonus issues by the issuers of the ETF’s underlying securities.

Depending on its particular strategy, an ETF may not hold all the constituent securities of an underlying index in the same weightings as the constituent securities of the index. Therefore, the performance of the securities underlying the ETF as measured by its NAV may outperform or underperform the index.

**Trading at a discount or premium to NAV** - Since the trading price of an ETF is typically



determined by the supply and demand of the market, the ETF may trade at a price higher or lower than its NAV. Also, where the reference index or market that an ETF tracks has restricted access, units in the ETF may not be created or redeemed freely and efficiently.

The supply and demand imbalance can only be addressed by creating and redeeming additional units. So, disruption to the creation or redemption of units may result in the ETF trading at a higher premium or discount to its NAV than may normally be the case for a traditional ETF with no such restriction.

In the event the ETF is terminated, investors who buy at a premium would not be able to recover the premium from the fund.

**Tax and other risks** - Like all investments, an ETF may be subject to tax imposed by the local authorities in the market related to the index that it tracks, emerging market risks and risks in relation to the change of policy of the reference market.

## Where to find important information

An ETF's offering document, financial statements, notices and announcements are available on the ETF's own website and the website of the Hong Kong Exchanges and Clearing Ltd.

Important information about the investment objective and strategies, such as index replication strategy adopted by an ETF, is provided in the offering document.

For a synthetic ETF, you can also find an overall description and selection criteria of the derivative counterparty(ies) and the nature of the collateral where a collateral arrangement is in place.

You may also check out a synthetic ETF's website for the ETF's exposure to each derivative counterparty, as well as the value, nature and composition of collateral received (expressed as a percentage of the ETF's NAV), where applicable.

## Where to find a comprehensive list of Hong Kong-listed ETFs

To access a full list of ETFs listed on the SEHK, be they synthetic ETFs or those using full replication or representative sampling of indices, please visit the "Understanding products - ETF" section of the Chin Family website.

You can also learn more about ETFs, including their key features, trading mechanism and factors you should consider in the investment process from the Chin Family website.

**Before you invest, read the offering document and latest updates on the ETF's website to understand its investment objective, strategy and other features. If in doubt, always ask your broker, financial adviser or other professional advisers.**