





#### **About the Investor and Financial Education Council**

Established in 2012 and supported by four financial regulators and the Education Bureau, the Investor and Financial Education Council (IFEC) is a public organisation dedicated to leading financial literacy in Hong Kong. The IFEC promotes and delivers free and impartial financial education resources and programmes through its consumer education platform, The Chin Family, and leads the Financial Literacy Strategy to create a conducive environment for stakeholders to deliver more quality financial education to various segments of the Hong Kong population.





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

# How does an index tracking ETF track an index?

To achieve the indextracking objective, an index tracking 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.

Index tracking ETFs typically have to use synthetic replication to gain access to those markets that impose restricted access to overseas investors. This strategy is also sometimes used by an index tracking ETF to raise efficiency and reduce cost, even if the markets are accessible by overseas investors.

## What is counterparty risk?

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

Synthetic index tracking 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 index tracking 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 index tracking ETF has, the higher the mathematical probability of the index tracking ETF being affected by a counterparty default. If any one of the counterparties fails, the index tracking 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 index tracking ETF has a "knock-on" effect on other derivative counterparties of the index tracking ETF. As a result, an index tracking ETF could suffer a loss substantially more than its expected exposure in the event of a single counterparty default.

Some synthetic index tracking ETF managers, however, only acquire financial derivatives from one or a few counterparties. These managers may seek to reduce an index tracking 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 index tracking 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 index tracking 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 index tracking ETF.

Besides, a higher liquidity risk is involved if an Index tracking 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 index tracking 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 index tracking 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 index tracking ETF's tracking strategy;
- the impact of fees and expenses;
- foreign exchange differences between the base currency or trading currency of an index tracking ETF and the currencies of the underlying investments; or
- corporate actions such as rights and bonus issues by the issuers of the index tracking ETF's underlying securities.

Depending on its particular strategy, an index tracking 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 index tracking 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 index tracking ETF is typically determined by the supply and demand of the market, the index tracking ETF may trade at a price higher or lower than its NAV. Also, where the reference index or market that an index tracking ETF tracks has restricted access, units in the index tracking 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 index tracking ETF trading at a higher premium or discount to its NAV than may normally be the case for a traditional index tracking ETF with no such restriction.

In the event the index tracking 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 index tracking 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 index tracking ETF's offering document, financial statements, notices and announcements are available on the index tracking 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 index tracking ETF, is provided in the offering document.

For a synthetic index tracking 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 index tracking ETF's website for the index tracking ETF's exposure to each derivative counterparty, as well as the value, nature and composition of collateral received (expressed as a percentage of the index tracking ETF's NAV), where applicable.

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

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

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

Before you invest, read the offering document and latest updates on the index tracking 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.

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