

Investment funds | ETF

Getting Started

Here with you today



Kevin Boran

Senior Manager – IM & Alternatives
kboran@deloitte.lu

Agenda

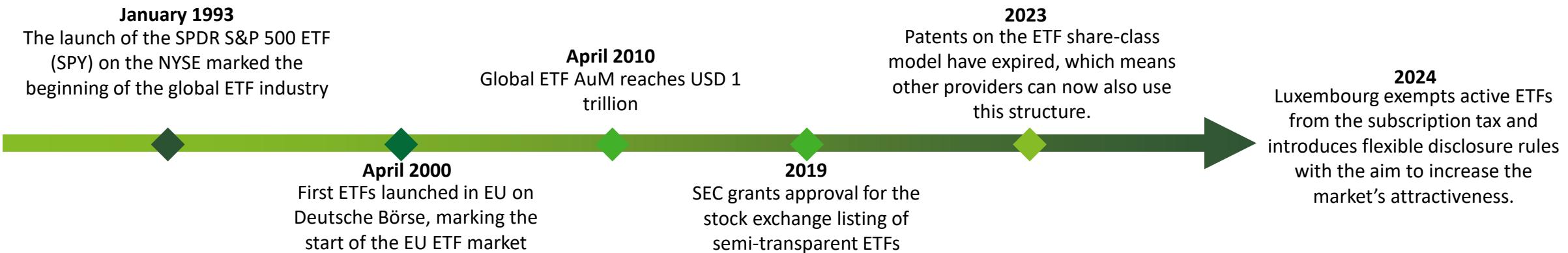
- 1 ETF market dynamics
- 2 ETF operating model
- 3 Market entry & strategic positioning
- 4 Wrap-up

ETF market dynamics

ETF market dynamics | Market trends: Introduction to ETFs

ETFs' development and the advantages they provide to asset managers and investors alike

An Exchange-Traded Fund (ETF) is an alternative to mutual funds. ETFs are investment funds that are **traded on stock exchanges**, much like stocks. They hold assets such as stocks, commodities, or bonds and generally **operate with an arbitrage mechanism** designed to keep trading close to its net asset value.



Advantages of ETFs for Asset Managers

Broader distribution: Exchange-traded access expands reach to retail, advisory, and institutional investors



Product innovation: Expand offerings and capture new investor segments



Competitive efficiency: Lower running costs, enhance product appeal and fee competitiveness



Intraday liquidity: Trade in and out of exposures throughout the day with real-time pricing



Advantages of ETFs for investors

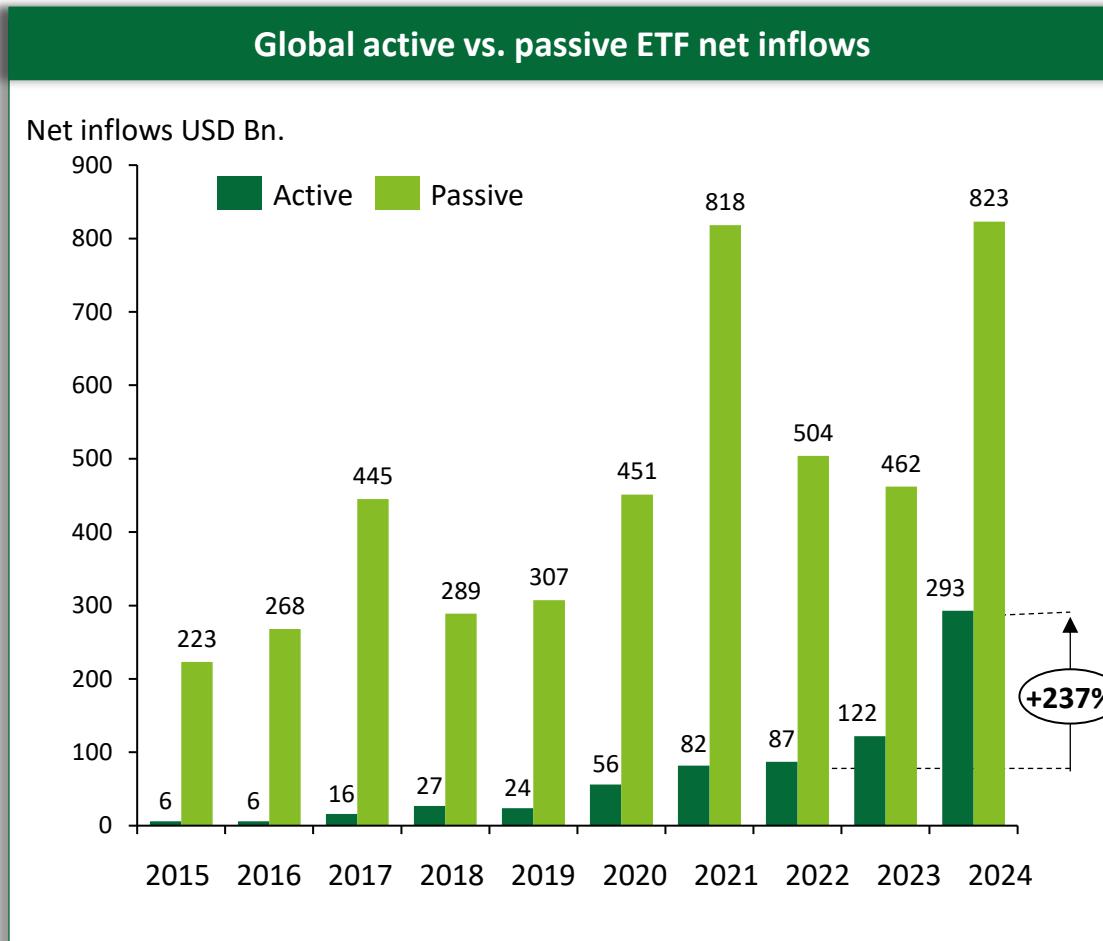
Cost advantage: On average cheaper than mutual funds, offering investors a clear cost advantage



*The recurrence of transparency depends on the transparency model chosen by the Asset Manager, subject to UCITS requirements and approval by the national regulator.

ETF market dynamics | Market trends: Global ETFs

Tracking global ETF inflows and the rising momentum behind actively managed ETFs



Source : [Morningstar | Europe Active ETFs Are Stepping Out of Their Comfort Zone](#)

Global ETF momentum and Europe's rising market position



Global ETF assets hit **≈ USD 15.2 trillion** globally by mid-2025, with the industry on pace for **record inflows in 2025**, as reported by **Reuters**



Global assets in actively managed ETFs have expanded rapidly in 2025 — **cited globally at about USD 1.6 trillion** — reflecting strong investor appetite for more flexible strategies, per **Reuters**



In Europe, **active ETFs collected €13.4 billion** in net inflows between January and August 2025, signaling growing investor acceptance, according to **Morningstar**

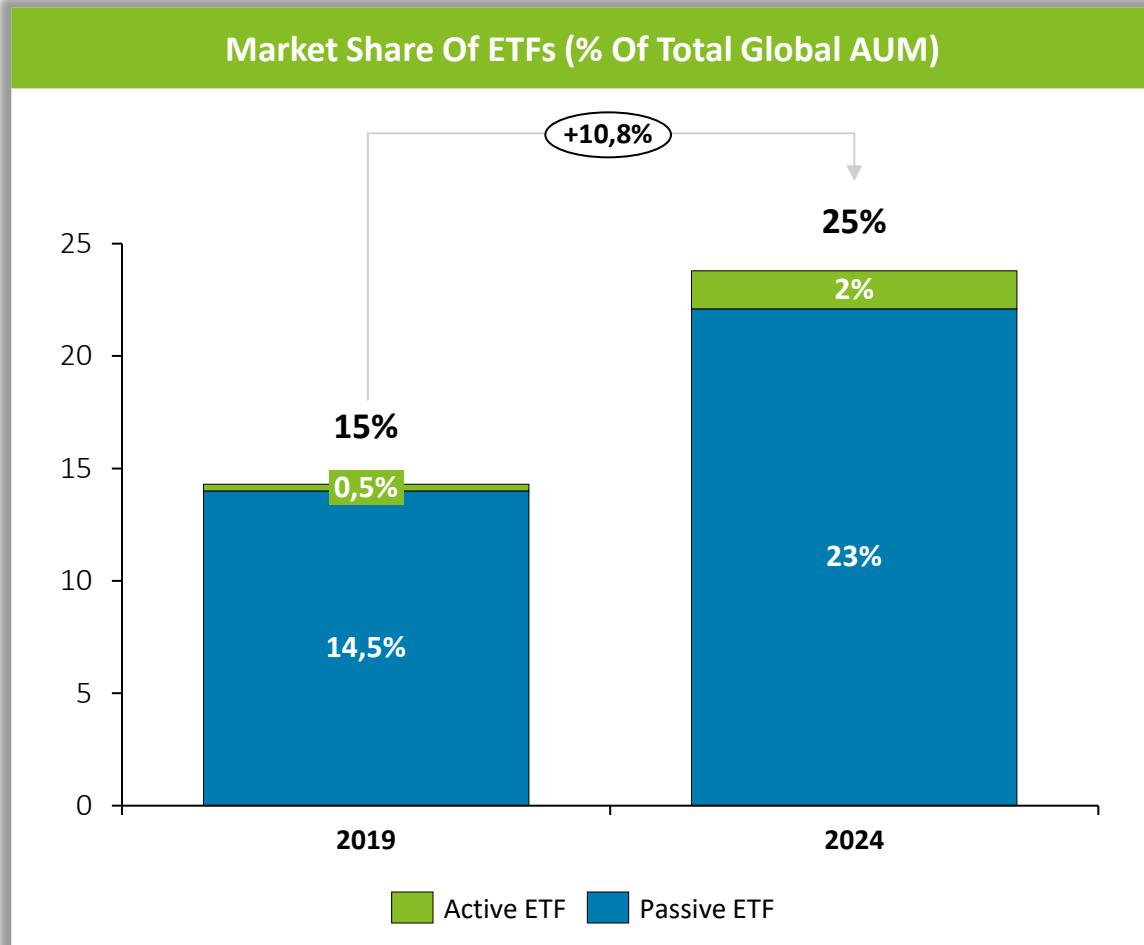


As of August 2025, European active ETF assets stood at **€62.4 billion**, nearly doubling over the past two years — still a small portion of total EMEA ETFs but showing rapid growth, per **Morningstar**

ETF market dynamics | Market trends: Market share evolution

ETF market share has grown exponentially, and will continue to do so in the future

CAGR



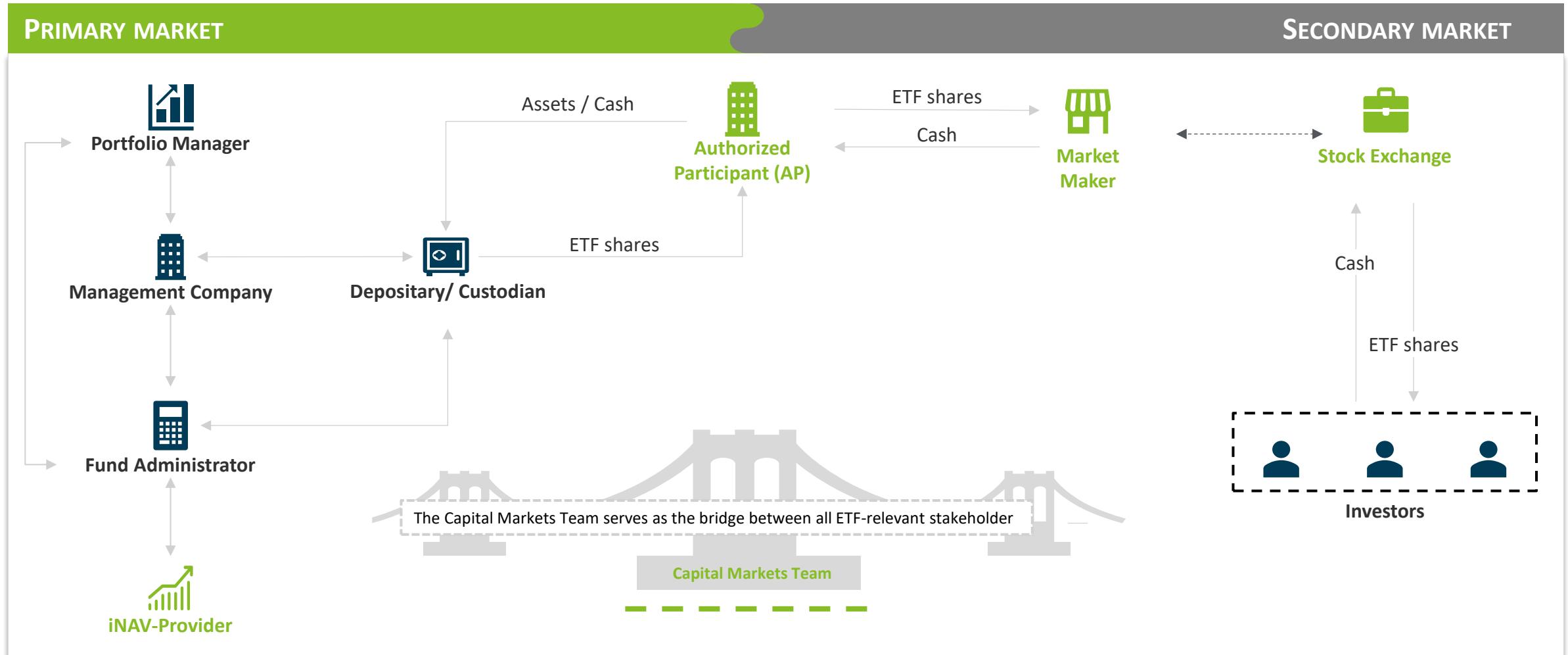
Source : ISS Market Intelligence, KKR, Casey Quirk, Deloitte Analysis

We expect a potential strong impact on product strategy & oversight models

ETF operating model

ETF operating model | Primary vs. Secondary market

A visual guide to the concept of primary vs. secondary market

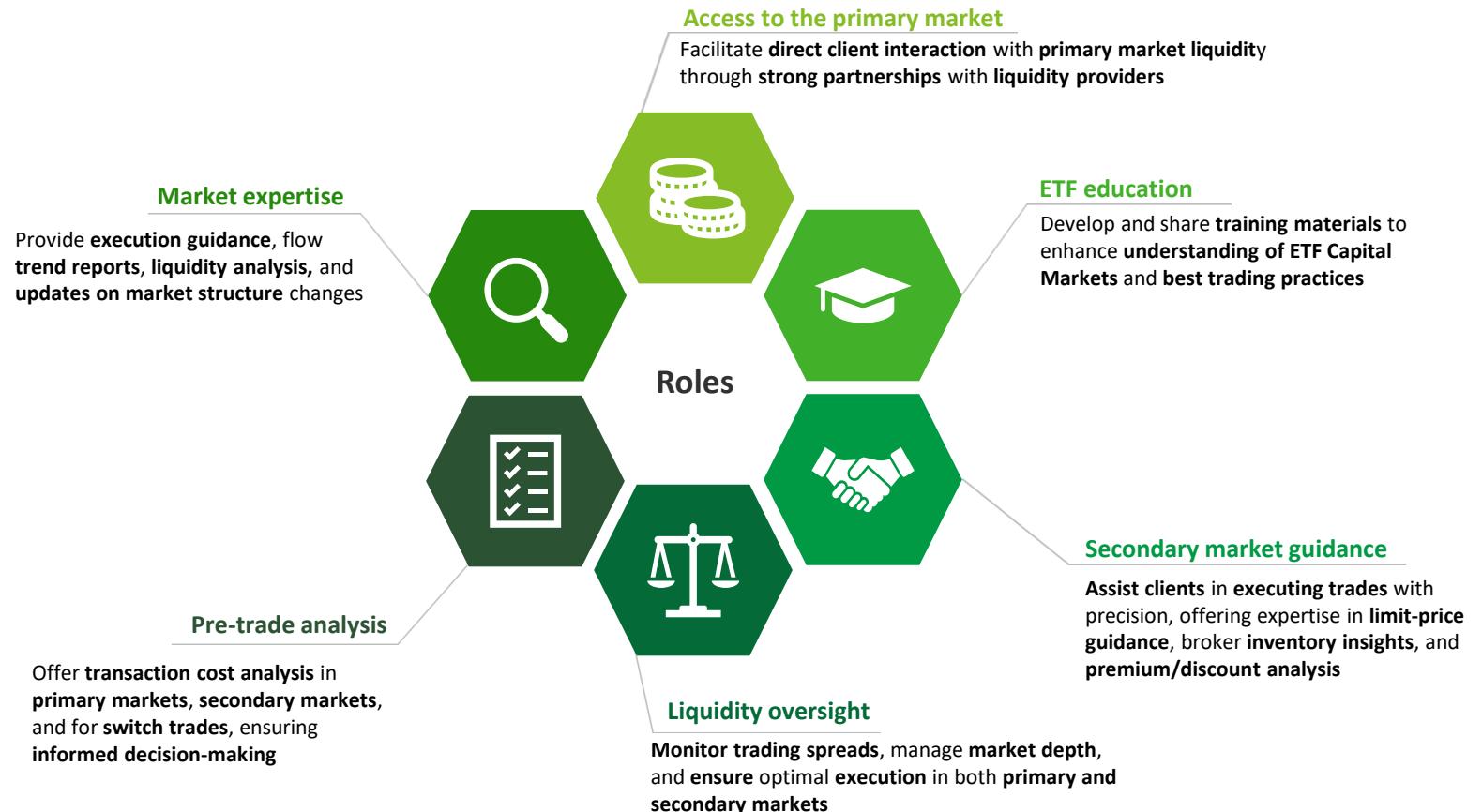


ETF operating model | ETF mechanism: Capital Markets team

ETFs require a Capital Markets teams to operate efficiently

What is the Capital Markets team?

The Capital Markets team ensures ETFs **trade efficiently** by partnering with **Market Makers and APs** to maintain liquidity and align market prices with NAV. They also support issuers and investors with **strategies to optimize ETF trading and performance**.



ETF operating model | ETF mechanism: Market Makers

Market Makers and Authorized Participants ensure market efficiency through arbitrage mechanism



Market Maker

- Provides the market with liquidity by being a seller to every buyer and buyer to every seller
- Essential to ensure market's functioning

- Ensures that ETFs are traded at a price as close to the NAV as possible
- Essential for primary market of ETF shares

Authorized Participant

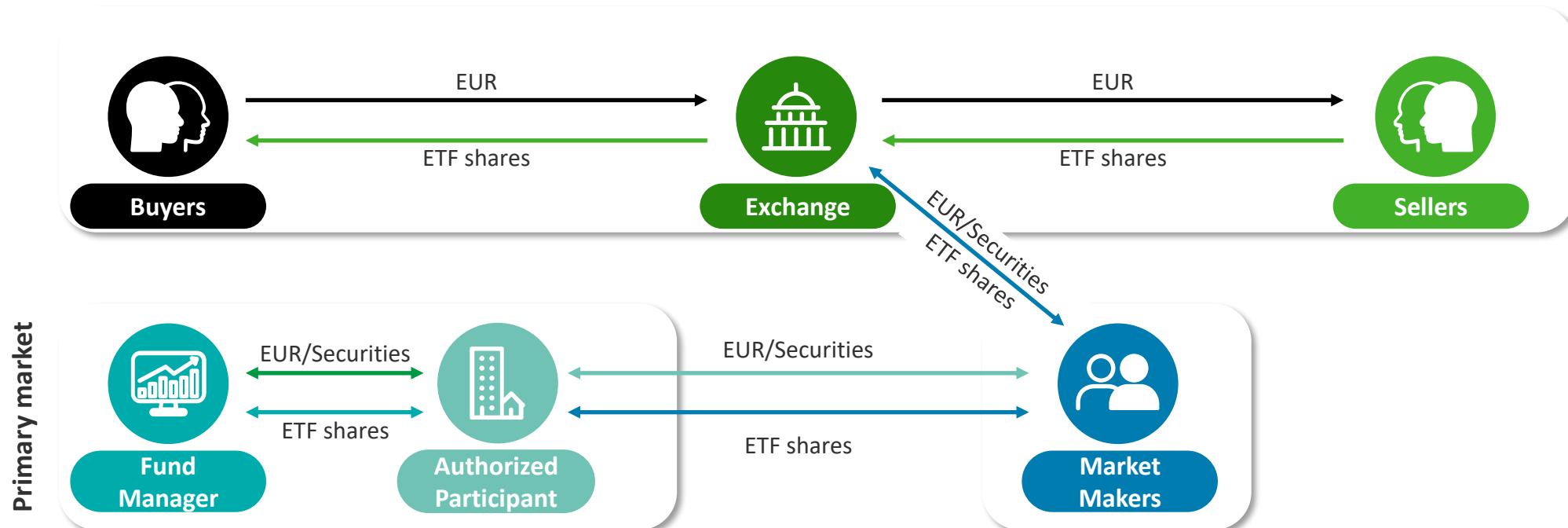


The arbitrage mechanism allows both **Market Makers** to perform their roles in an **independent manner** by **being remunerated by the market**. By buying and selling the securities at a premium/discount help to maintain liquidity and adjust the demand all whilst being remunerated by the buyers and the sellers.



ETF operating model | ETF mechanism: Authorized Participants

ETF shares move through primary creation/redemption and secondary market trading to support liquidity and price

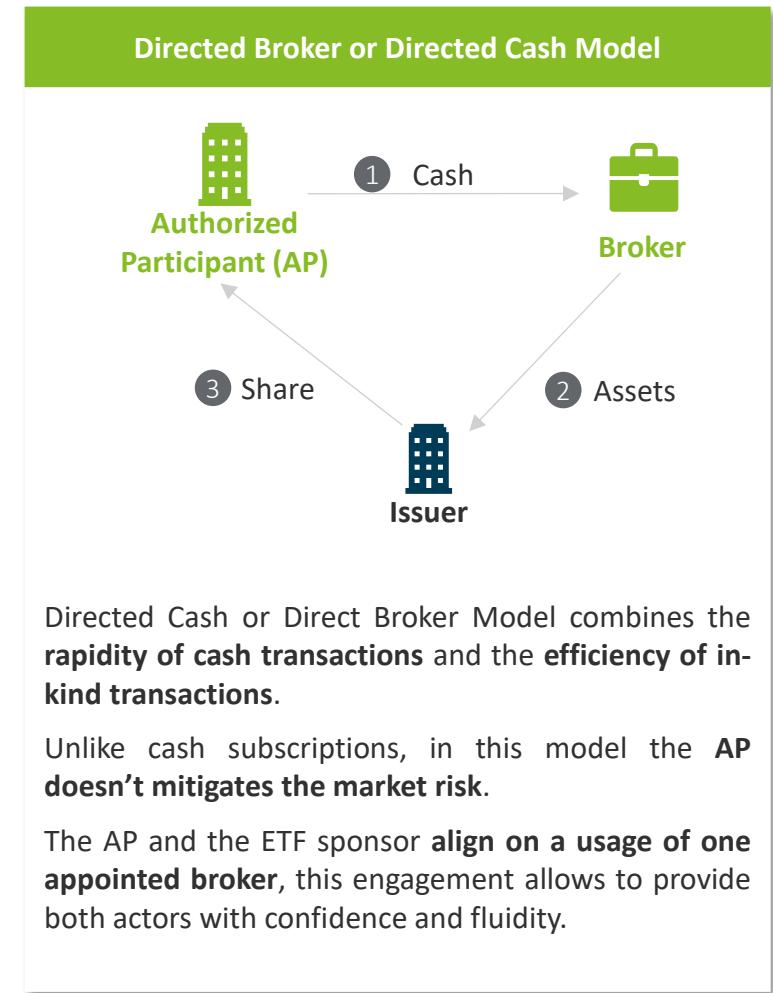
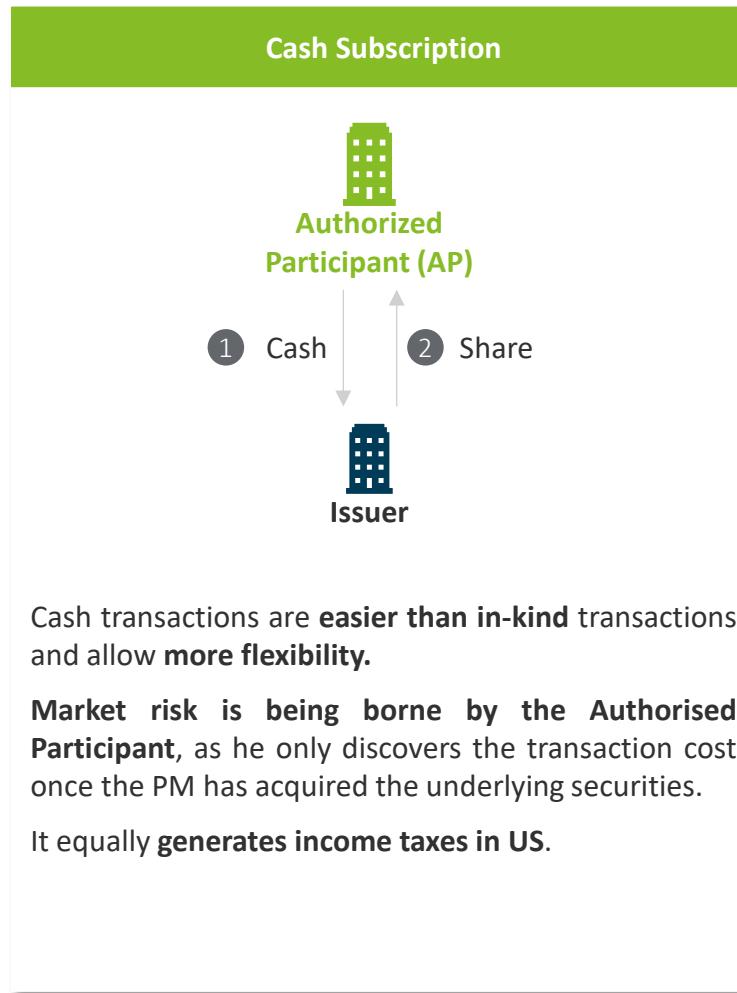
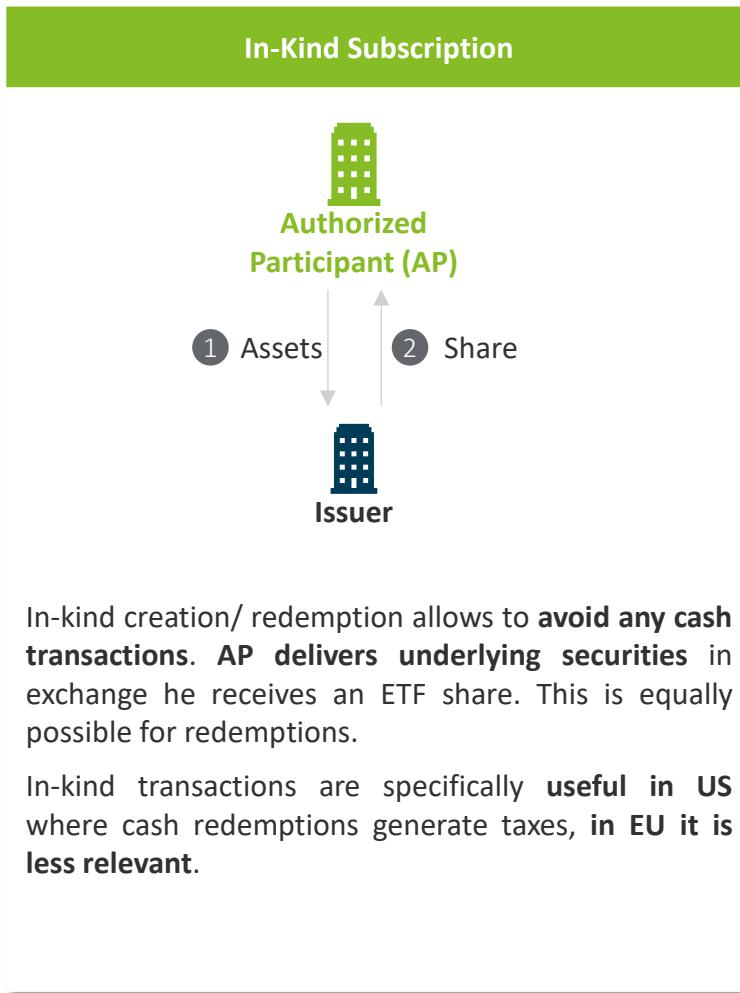


Authorized Participants

The term **Authorized Participants** comes from the fact that they are the **only market actors allowed to participate in share creation and redemption process**. The APs are in direct contact with the **Fund Manager** and can **redeem / create shares** at any time of the trading day. This process happens at **NAV** meaning that it can **benefit from the difference between the trading price and NAV**. Consequently, the procedure of creating and redeeming the shares **makes the price and the NAV converge to one point**. APs usually “create” and “redeem” shares throughout the day, but **only one “clean” order is done to the Fund Manager** in the end of the day.

ETF operating model | ETF mechanism: Share creation and redemption

How APs facilitate ETF share creation and market liquidity



ETF operating model | PCF

PCFs are a crucial aspect for Authorized Participant's function

ETF Portfolio Composition File (PCF) Contents (ICE Data Services, Solactive AG)

ETF Information (First line·Second line)

| Item | Contents | Notes |
|---------------------|--|---|
| ETF Code | ETF's local code (4 digit) | |
| ETF Name | ETF's issue name | |
| Fund Cash Component | Net asset value of the fund excluding the valuation of shares held as of the previous business day (1) (JPY) | <ul style="list-style-type: none"> During the period between the ETF's exdividend date and the settling date,* (1) minus the total dividend amount for the ETF (the estimated dividend per unit × the number of shares outstanding). (*If the ETF's settling date falls on a holiday, from the ex-dividend date to one business date after the settling date) On the ex-dividend date of shares held, (1) plus total dividend amount (estimated dividend per share × number of shares held) |
| Shares Outstanding | Shares outstanding as of the previous business day (Share) | |

Constituents information (following third line)

| Item | Contents | Notes |
|---------------|---|---|
| Code | Local code (4 digit) | Local code (4 digit), Warrant (5 digit), SEDOL (7 digit) |
| Name | Issue name | |
| ISIN | ISIN code (12 digit) | <ul style="list-style-type: none"> For some issues, the listed codes can differ from the ISIN code (12 digit). |
| Exchange | Listed market | Ex. TSE, OSE, SAP, OTC, HKF, TOCOM |
| Currency | Applied currency (ISO Currency Codes) | |
| Shares Amount | Number of shares (Share) and warrants (Unit), value of bonds (JPY), Unit of futures (Unit), cash (JPY) held by the fund | |
| Stock Price | Base price (JPY) | Settlement price on the previous business day for futures |

Others

- Disclaimer clause issued by ETF asset management companies/ETN issuers may follow the constituents information.

Source: [JPX](#)

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What's a PCF?

A Portfolio Composition File is a document specific to ETFs. It contains **detailed information about the assets held in the fund and the basket of securities needed for in-kind redemption** during this trading day.

Who needs a PCF?

The PCF is used **mainly by Authorized Participants** to perform in-kind creations and redemptions. This file is **usually confidential** even though the **portfolio composition is disclosed at the stock exchange**.

What about transparency?

Most **ETFs operate with full portfolio transparency**. Some **European ETFs**, notably those **domiciled under CSSF in Luxembourg** now use a **semi-transparent model**: they **publish a daily PCF for APs and MMs**, while full-holdings **disclosure to the public** happens only **periodically** (e.g. monthly). This **semi-transparent structure** helps **protect proprietary investment strategies and intellectual property**, while preserving the **ETF arbitrage and liquidity mechanics**. As a side note, the same **semi-transparent option** has recently been **enabled by Central Bank of Ireland (CBI)**. Irish-domiciled ETFs may now choose **between daily public disclosure or periodic public disclosure** (e.g. quarterly), while providing daily portfolio data to APs and MMs.

Market entry & strategic positioning

Market entry & strategic positioning | Market entry options

Options for entering the ETF market

| Criteria | 1 Creating a new SICAV | 2 New compartment of existing SICAV | 3 ETF share class within existing SICAV compartment | 4 Converting existing non-ETF SICAV compartment into an ETF |
|------------------------|---|--|--|---|
| Description | Launching a standalone SICAV dedicated to ETFs creates a fully independent umbrella with its own governance, prospectus, and service providers. It supports building a dedicated ETF platform aligned to the promoter's branding and operating model. | Launching an ETF as a new compartment within an existing umbrella leverages the established legal, governance and operational framework. It uses the existing structure for faster implementation. | Introducing an ETF share class within an existing non-ETF compartment provides a fast route to market, using the existing approvals and infrastructure. The ETF share class shares the same portfolio, strategy, AUM, and track record as the existing fund. | Converting an existing compartment into an ETF retains the fund's assets, investors and performance history while transitioning to an exchange-traded format. The process requires adoption of ETF-specific infrastructure, regulatory coordination and updates to disclosures. |
| Benefits | Full legal separation; tailor-made platform build-out; tailored governance, prospectus, and service providers; scalable for multi-ETF ranges. | Leverages existing governance and service providers; faster CSSF regulatory addendum; operational efficiencies. | Retains AUM & track record; minimal duplication; facilitates a relatively quick entry to exchange distribution; fast-to-market entry using pre-approved structure. | The ETF format retains AUM and performance history, and investor base & performance history; direct access to ETF distribution supporting proven strategies; continuity and credibility for established strategies. |
| Challenges | Long set-up time; requires full CSSF regulatory review; high set-up complexity and costs for infrastructure build-out; extensive end-to-end preparation. | Must align with umbrella policies, ETF-specific prospectus updates and governance constraints; limited branding flexibility and disclosure autonomy. | No strategy differentiation; shared NAV/operations with mutual fund; operational complexity in managing dual share-class liquidity, and creation/redemption models. | Significant operational transition; requires investor communication and regulatory coordination; ETF infrastructure build-out; potential investor attrition may occur. |
| Time to market | -- | + | ++ | +- |
| Regulatory complexity | ++ | +- | +- | +- |
| Branding flexibility | ++ | +- | -- | +- |
| Operational complexity | +- | +- | +- | +- |

Market entry & strategic positioning | Choosing the right replication method

Index leveraging two different replication methods

ETF replication methods

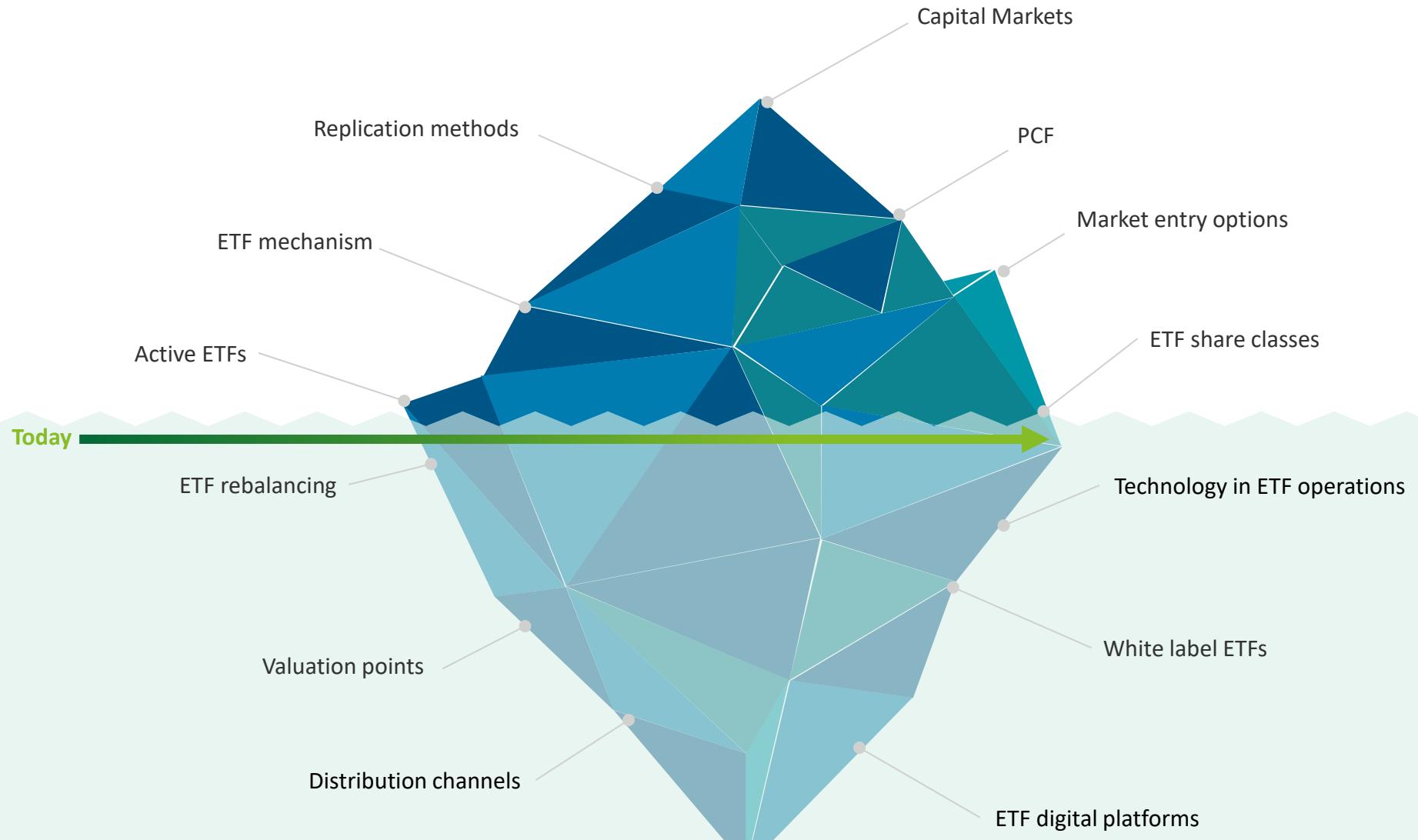
Selecting a replication method is crucial for determining how an ETF tracks its underlying benchmark. European ETFs primarily use physical or synthetic replication, with hybrid methods also being possible.

| Criteria | Definition | Advantages | Challenges | Tracking precision |
|---|--|--|---|--|
| Full physical | Replication methodology where the ETF holds all (or almost all) securities of the target index in the exact proportions as the index itself. It provides direct exposure to the underlying assets . | Precise exposure to all constituents; highest holdings transparency ; straightforward governance ; securities lending is an opportunity . | Heavy trading/rebalance workload ; corporate actions/FX handling ; small-cap liquidity frictions ; cross-market settlement complexity . | High : tight alignment with modest slippage or cash drag. |
| Optimized sampling | A strategy where the ETF holds a carefully selected subset of the index's securities to replicate its risk and return profile closely, avoiding less liquid or costly holdings . | Lower turnover and trading costs ; scalable for very broad universes ; avoids illiquid securities while keeping profile close to target ; securities lending is possible . | Model/selection risk and potential style bias; requires ongoing calibration and monitoring ; alignment between Portfolio Composition File (PCF) and real portfolio must be maintained. | Medium-High : close tracking if well-calibrated; depends heavily on sampling quality. |
| Synthetic | Uses derivatives such as swaps to replicate the index's performance without holding the actual underlying securities , providing indirect exposure . | Highest tax efficiency (e.g., mitigates U.S. dividend withholding tax); clean access to restricted/hard-to-reach markets ; minimal underlying trading; stable implementation . | Counterparty dependence ; daily collateral/margining requirements ; documentation complexity ; need multiple swap counterparties to mitigate concentration risk . | High : swap contract delivers target exposure (net of swap fees) almost precisely. |

Wrap-up

Wrap-Up | Summary

ETFs are a complex and deep subject



Thank you for your attention in today's session!

ANY FURTHER QUESTIONS?



Please ask your questions now, or reach out to Kevin at a later stage

YOUR DELOITTE CONTACTS



Frank Lichtenhäuser
Partner – IM & Alternatives
flichtenthaler@deloitte.lu



Kevin Boran
Senior Manager – IM & Alternatives
kboran@deloitte.lu

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