



MASSIMILIANO SILLA
MULTI FAMILY OFFICE

Understanding **ETPs**.

ETFs, ETCs and ETNs explained properly: how they work, how they differ, what they really cost and how the Italian tax system treats them. An independent guide for investors.



ETF



ETC



ETN

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Simple instruments, **properly explained.**

ETPs – the exchange-traded products that track an index, a commodity or a currency – have become the most widely used building block in investors’ portfolios: worldwide they are worth more than twenty-four trillion dollars. And yet, behind three similar acronyms (ETF, ETC, ETN) lie instruments that differ profoundly in legal nature, in risks and in tax treatment.

This guide was written to close that gap: to explain in plain English, taking nothing for granted, what you actually buy when you buy an ETP, how the engine that keeps it tied to its index works, which costs you see and which you don’t, and what happens when the moment comes to settle up with the Italian tax authorities.

It is an independent guide: it promotes no product, names no issuer and is no substitute for personal advice. It provides the foundations – the ones every investor should have before deciding.

HOW TO USE THIS GUIDE

- **It is navigable.** One click on a contents entry jumps to the chapter; the page number at the foot always leads back to the contents.
- **The “In plain words” boxes** translate the most technical concepts into everyday analogies.
- **“Key takeaways”,** at the end of each chapter, sums up the essential points in a few lines.
- **The final glossary** gathers all the technical terms: whenever a word doesn’t add up, the answer is there.

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Thirteen chapters, **one path.**

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A global phenomenon, in six numbers.

1993

The year of the first ETP: growth has never stopped since.

over **15,000**

The ETPs listed worldwide today, across every asset class: equities, bonds, commodities, currencies.

\$24 trillion

The assets invested in ETPs at the end of August 2026: ten years earlier it was about a seventh of that.

\$3.97 trillion

The assets of European ETPs at the end of August 2026, almost doubled in two years.

\$26 trillion

Where PwC expects (2025) global ETF assets to arrive by 2029: its previous forecast has already been beaten.

over **50**

The issuers present on the London Stock Exchange alone, with more than 2,200 listed ETPs.

Sources: ETFGI, September 2026; PwC, "ETFs 2029: The path to \$30 trillion", March 2025; London Stock Exchange, June 2024. Past performance is not indicative of future results, and any investment can lose value.



PART ONE · CHAPTERS 1–6

The **instruments.**

What ETPs are and who the three family members are:
ETF funds, ETC securities on commodities, ETN notes.

The differences that matter – and the special
instruments to handle with care.

01

An entire market, in a single share.

Before choosing any instrument, it pays to understand the playing field: what the acronym ETP means, how this family of instruments was born and grew, and why in thirty years it has won a place in portfolios across half the world. And, above all, the distinction that underpins everything else: the one between active management and passive management.

1.1 What an exchange-traded product is

An ETP – short for *exchange-traded product* – is a financial instrument that is bought and sold on the stock exchange exactly like the shares of a large listed company, one that appears on the exchange's list. The exchange is the regulated market where, throughout every trading day, buyers and sellers meet: this is why the price of an ETP is public and updated in real time, from the morning until the close.

The difference from a share lies in what is inside. A share represents a single company; an ETP, by contrast, packages a broader investment: an entire basket of shares or of bonds (the securities through which governments and companies borrow money), a commodity such as gold, or assets that were once the preserve of specialists. In most cases the aim of an ETP is to replicate an index – a list of securities built according to precise rules that captures the performance of a market: for example, the largest listed companies of a country.

The practical result is remarkable: with a single transaction, even of a few hundred euros, you obtain the performance of hundreds of securities in one go.

IN PLAIN WORDS

Think of the fruit stall. You could pick out apples, pears and oranges one by one, weighing and paying for each bag. Or you could take the ready-made basket, which holds them all in proportions decided in advance. An ETP is that basket: a single purchase, many ingredients inside. And, unlike the supermarket basket, you can sell it back at any moment at the market price.

1.2 One family, three acronyms: ETFs, ETCs and ETNs

The term ETP in fact describes a family of instruments, with three main members. **ETFs** (*exchange-traded funds*) are by far the most widespread: genuine investment funds listed on the exchange, generally built to replicate equity or bond indices. **ETCs** (*exchange-traded commodities*) are dedicated to commodities, from gold to oil to agricultural products. **ETNs** (*exchange-traded notes*) are instead debt securities – in essence, promises of payment whose value tracks an underlying asset – and serve to replicate what is hard to fit inside a fund, such as currencies or cryptocurrencies. The differences between these structures, including in terms of risk, are not mere details: we will look at them properly in [chapter 2](#), [chapter 3](#) and [chapter 4](#). For now the group photograph is enough: three acronyms for two legal natures – an ETF is a fund, while ETCs and ETNs are debt securities – and a single underlying logic.

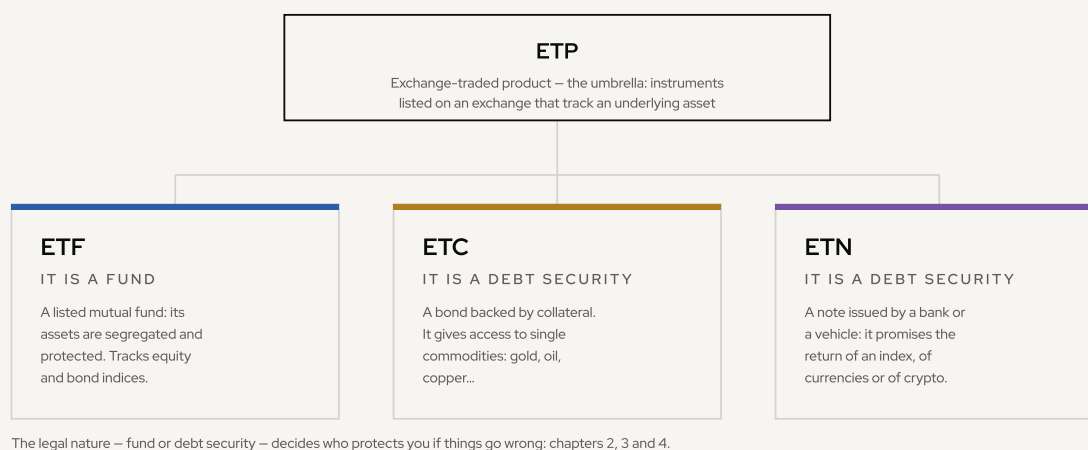


FIGURE 1 The ETP family

Illustrative diagram

1.3 From 1993 to today: thirty years of growth

The first ETP was born in the United States in 1993, with a simple ambition: to offer a more practical way to buy an entire equity index. Since then the formula has spread to almost every asset class, sector and geographical area in the world.

The numbers tell the story of its success. Today there are more than 15,000 ETPs in the world (source: ETFGI, 2025), with invested assets that passed \$24 trillion at the end of August 2026 (source: ETFGI, September 2026); ten years earlier the figure was little more than \$3 trillion. The forecasts made in 2024 (\$19.2 trillion by June 2028, according to PwC) were beaten three years early, and the race does not look over: in 2025 PwC itself pointed to at least \$26 trillion in 2029 (source: PwC, 2025).

Europe is no exception: at the end of August 2026 European ETPs touched a record of almost \$4 trillion in assets, nearly double the level of mid-2024 and almost four times that of early 2020 (source: ETFGI, September 2026). And on the London stock exchange alone more than 2,200 ETPs are listed,

offered by over 50 issuers – the companies that create and manage these products (source: London Stock Exchange, 2024).

In other words: what thirty years ago was an experiment is today one of the most widely used building blocks in portfolios all over the world, from large institutional investors to individual investors.

GLOBAL ETP ASSETS – TRILLIONS OF US DOLLARS

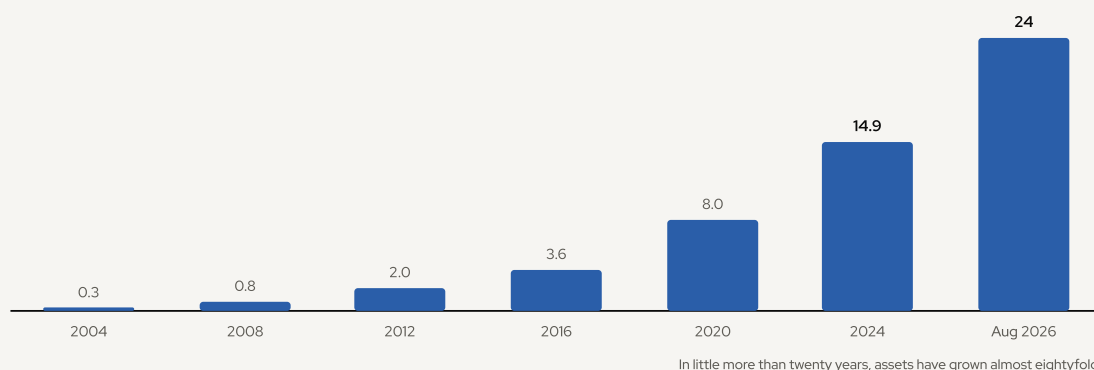


FIGURE 2 The growth of global ETP assets

Source: Morningstar, Bloomberg, ETFGI; year-end data and August 2026 – rounded figures

1.4 Active management and passive management

To understand ETPs you need one fundamental distinction, the one between the two great styles of investing.

In **active management** a professional manager picks, one by one, the securities to back, with the aim of beating the market: doing better, that is, than the *benchmark*, the reference index against which the manager's results are measured. It is a craft of selection and personal conviction: sometimes it pays off, sometimes it does not.

In **passive management**, by contrast, there is no attempt to beat the market: the aim is simply to replicate it as faithfully as possible. If the index rises by 5%, the passive product aims to rise by roughly 5%; if it falls, it falls with it. No bets, no surprises relative to the market you have chosen to follow.

Most ETPs belong to the second family: they exist precisely to replicate an index or an underlying asset. There are, however, middle ways – strategies that follow transparent, systematic rules to try to do better than the index – and in recent years a new generation of actively managed ETFs has been gaining ground. The essential point to remember is this: when you buy a passive ETP, you are not paying someone to hold an opinion on the market; you are buying the market itself.

IN PLAIN WORDS

Passive management is like a train: it follows the rails of its route – the index – exactly, with no detours. Active management is like a taxi driver who knows the city and tries the shortcuts: sometimes he arrives before the train, sometimes he gets stuck in traffic. With the train you know in advance which way you will go; with the taxi you pay for the driver's skill, hoping it is worth the fare.

1.5 Five good reasons (and one warning)

Why have millions of investors chosen these instruments? There are five main reasons.

- **Diversification.** It is the golden rule of not putting all your eggs in one basket. With a single ETP, even starting from €500, you can spread your investment across hundreds of securities: if one company does badly, its weight in the total remains small.
- **Low costs.** Replicating an index with automatic rules costs less than paying a team of managers to pick securities. We will devote an entire chapter to costs – [chapter 9](#); for now it is enough to know that cost efficiency is one of the engines of the success of ETPs.
- **Transparency.** The composition and the asset value of ETPs are published every day: you can always know what you own and what it is worth.
- **Liquidity.** In finance, liquidity is the ease with which an instrument can be bought and sold without a price penalty. ETPs can be traded at any time the exchange is open, normally with a narrow bid-ask spread – that is, a small difference between the price at which you can sell and the price at which you can buy.
- **Access.** Commodities, distant markets, currencies, cryptocurrencies, even carbon emission allowances (the permits companies buy in order to emit carbon dioxide): exposures that once required complex instruments or specialised accounts are today within reach with the same simplicity as a share.

One warning, though: none of these advantages eliminates risk. An ETP replicates its market even when the market falls, and the invested capital can lose value. Buying the instrument well is no substitute for the most important question: is this investment suited to your goals?

KEY TAKEAWAYS

- An ETP is bought and sold on the exchange like a share, but inside it holds an entire investment.
- The ETP family has three main members: ETFs, ETCs and ETNs.
- Born in 1993, ETPs are today worth more than \$24 trillion worldwide (ETFGI, August 2026).
- Most ETPs are passively managed: they replicate an index rather than trying to beat it.
- Diversification, costs, transparency, liquidity and access are the five advantages; the risk, however, remains.

Invested capital is at risk: its value can fall as well as rise.

02

A fund that lives on the exchange.

An ETF is, in essence, an investment fund that is bought and sold on the stock exchange like a share: with a single transaction you become the owner of an entire basket of securities. The pages that follow show how it works, how it differs from traditional funds and from buying individual shares, and why the UCITS label is a precious safeguard for investors in Europe.

2.1 A fund you buy like a share

ETF stands for *exchange-traded fund*. Behind the acronym lies a simple idea. A mutual fund is a container that gathers the money of many investors and invests it in a set of securities: this set is called the **basket**. Those who pay in their money receive in exchange **shares** of the fund – small slices of the basket, in proportion to how much they have invested.

What makes the ETF special is that these shares are listed on the stock exchange, just like the shares of a large company. The first instrument of this kind was born in the United States in 1993; today the listed instruments of this family (ETPs, of which ETFs are the leading members) number more than 15,000 worldwide (source: ETFGI, 2025) and gather over \$24 trillion (source: ETFGI, September 2026).

Most ETFs are **passively managed**: there is no manager picking securities in the hope of beating the market, but rather a declared objective of replicating an **index** – a list of securities built according to precise rules, for example the 500 largest American companies, or euro-area government bonds. If the index rises by 1%, the ETF aims to rise by 1%; if it falls, it falls. Two techniques exist for achieving this, “physical” and “synthetic” replication: for now it is enough to know that they exist – we will look at them in a dedicated chapter.

In concrete terms: by investing €1,000 in an ETF that replicates a world equity index, with a single transaction you become the owner, in miniature, of hundreds of companies across dozens of countries.

IN PLAIN WORDS

Remember the fruit basket from chapter 1? An ETF share is exactly that: with a single purchase you bring home apples, pears and oranges, without having to choose them one by one. And the value of your basket rises or falls with the price of the fruit it contains.



FIGURE 3 Hundreds of securities, a single share

Illustrative diagram

2.2 What changes compared with traditional funds and individual shares

A traditional mutual fund is subscribed through a bank or the asset manager, and can be bought or sold at most once a day, at a single price calculated at the end of the day: the **NAV** (net asset value), that is, the value of everything the fund owns, net of liabilities, divided by the number of shares. An ETF, by contrast, trades on the exchange throughout the market day, at prices updated in real time: you place the order and know at once how much you have paid.

The second difference is transparency: ETFs publish the composition of the basket and the NAV every day, so it is always possible to check what you own and what it is worth. Many traditional funds disclose their composition less frequently. The third concerns costs: passive management generally costs less than active management – a subject important enough to deserve a chapter of its own.

And compared with individual shares? The way you buy is identical: same securities account, same broker. But the content is different. Buying a share ties your result to the fate of a single company; buying an ETF spreads it across hundreds of securities. With €3,000 in a single company, if that company loses half its value, your investment is halved; with €3,000 in a basket of 500 companies, the weight of each one is minimal. Beware, though: diversification reduces the risk tied to the individual company, not that of the market as a whole. The invested capital remains at risk.

FEATURE	ETF	TRADITIONAL FUND	INDIVIDUAL SHARE
Trading	On the exchange, continuously, at real-time prices	At most once a day, at the NAV	On the exchange, continuously
Diversification	An entire basket with a single transaction	An entire basket	A single company
Transparency	Basket and NAV published every day	Composition disclosed at varying intervals	You know exactly what you own

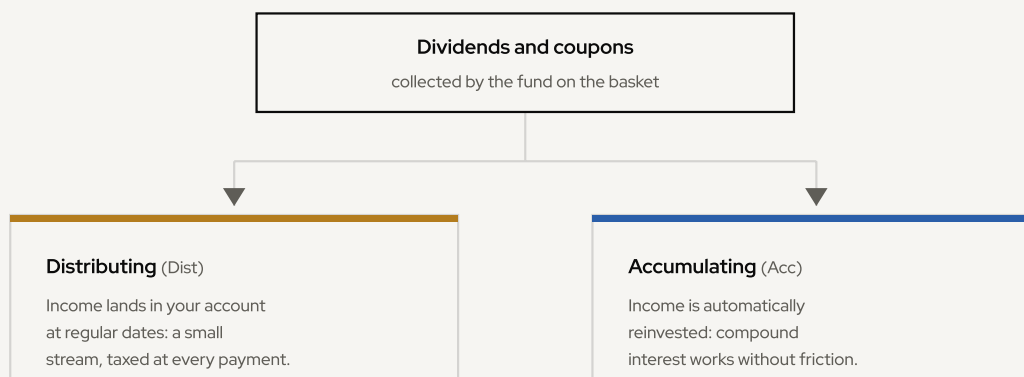
TABLE 1 What changes compared with traditional funds and individual shares

2.3 Dividends: collect them or reinvest them

Many companies periodically distribute part of their profits to their shareholders: these are **dividends**. In the same way, bonds pay periodic interest – the **coupons**. An ETF that holds shares or bonds collects these flows and can do one of two things.

- **Distribution:** the ETF pays the proceeds into the investor's account, generally once or more per year. This is the version designed for those who want a periodic income from their capital.
- **Accumulation:** the ETF automatically reinvests the proceeds in the basket. The value of the share grows accordingly and the gains begin to generate further gains: this is the mechanism of compound interest.

A hypothetical example, in round numbers: you have €10,000 in an equity ETF and the companies in the basket distribute €300 in dividends. With the distribution version you find €300 in your account; with the accumulation version the €300 stays invested and the value of your shares increases. Same basket and, before tax, the same overall result: what changes is where the proceeds end up. There is, however, a tax difference that is far from negligible, which we will see in [chapter 12](#): in the distribution version the proceeds are taxed straight away, in the accumulation version taxation is deferred until the moment of sale. The version – distribution or accumulation – is always indicated in the product documentation, and the choice depends on each investor's goals.



With accumulation, tax falls due only when you sell: chapter 12 explains why this deferral is an advantage.

FIGURE 4 Distributing or accumulating

Illustrative diagram

2.4 UCITS, the European quality label

The name of most ETFs sold in Europe carries the acronym **UCITS**, which stands for “Undertakings for Collective Investment in Transferable Securities”: it is the set of European Union rules governing funds intended for retail investors. You can read it as a quality label: it does not say whether that investment is right for you, but it guarantees that the product meets minimum standards of protection. There are three main safeguards.

- **Segregated assets.** The securities in the basket must be held with an independent depositary bank, whose task is precisely to keep them in custody, separate both from the assets of the company that created the ETF and from those of the depositary itself. If either were to fail, creditors could not touch the basket: it remains the property of the investors.
- **Mandatory diversification.** The rules impose concentration limits: for an ETF that replicates its index in full, a single security may not exceed 20% of the fund's assets, a threshold that can rise to 35% only in particular circumstances; for sampling ETFs an even stricter rule applies, known as “5/10/40” (source: UCITS directive). A UCITS ETF cannot, therefore, turn into a bet on a single name.
- **Supervision and disclosure.** The fund is subject to the oversight of the supervisory authorities and must publish standardised documents, including the **KID**, the “key information document”: a few pages, in accessible language, summarising the nature of the product, its risks and its costs.

These guarantees explain much of the trust in – and the growth of – ETFs in Europe: at the end of August 2026 the assets of European listed instruments touched a record of almost \$4 trillion, nearly double the level of mid-2024 and almost four times that of early 2020 (source: ETFGI, September 2026).

IN PLAIN WORDS

The UCITS label works like a protected designation of origin on a cheese: it does not assure you that you will like that particular cheese, but it certifies that it was produced according to precise rules, with controlled ingredients and regular inspections. In the same way, a UCITS ETF can rise or fall in value, but it is born and lives within a fence of European rules designed to protect investors.

2.5 The great families of ETFs

The range on offer is by now vast: there is an ETF for almost every market. There are five main families.

- **Equity:** they replicate share indices – global, single-country or emerging-market, meaning the developing economies. They are the most common gateway to the equity markets.
- **Bond:** they invest in government bonds or corporate bonds, that is, loans made to governments or companies in exchange for interest. They generally fluctuate less than equity ETFs, but they are not risk-free.
- **Sector and thematic:** they concentrate on one sector (technology, energy, healthcare) or on a long-term theme (water, the ageing of the population). More targeted, and for that very reason less diversified.
- **ESG:** they select securities also according to *environmental* criteria (the “E”), *social* criteria (the “S”) and good corporate *governance* (the “G”), excluding for example the most polluting or controversial companies.
- **Smart beta:** a middle way between passive and active management. They follow transparent, automatic rules that select or weight securities differently from simple market value – for example favouring companies that pay high dividends. For now a mention is enough: knowing that they exist.

Whichever family you consider, the same warning applies: an ETF makes a market accessible, it does not make it safe. Before choosing one, it is worth understanding what the basket contains – and that is exactly what the coming chapters will help you do.

KEY TAKEAWAYS

- An ETF is a mutual fund listed on the exchange: with one share you buy an entire basket of securities.
- It can be bought and sold at any time the market is open, at real-time prices.
- In the accumulation version dividends are reinvested; in the distribution version they arrive in your account.
- The UCITS label guarantees segregated assets, minimum diversification and European supervision.
- Diversification reduces risk but does not eliminate it: the invested capital remains at risk.

Invested capital is at risk: its value can fall as well as rise.

03

Commodities,
without the warehouse.

Investing in gold or in oil without physically owning them: that is what ETCs make possible – the exchange-listed securities that bring individual commodities into a portfolio. Here you will see how they are built, when they truly own the metal and why, when futures are involved, their return may not match the price you read in the papers.

3.1 Why ETCs exist

Anyone who wants to invest in gold or oil through a fund runs into a regulatory obstacle. In Europe, listed investment funds follow the UCITS rules, the European Union legislation that protects investors. Among its safeguards is the obligation to diversify: a fund cannot concentrate its assets in a single asset. The same rules, moreover, forbid funds from holding physical commodities.

The result is that a fund can offer at most a diversified basket of commodities, never a single one. If you are looking for exposure to gold alone, or to natural gas alone, the “fund” wrapper does not work. To fill this gap the industry created a different vehicle: the ETC, short for *exchange-traded commodity*.

3.2 A debt security, not a fund

An ETC is not a fund: it is, technically, a rather particular bond. A bond is a debt security: whoever buys it lends money to whoever issues it. In the case of an ETC, however, the security pays no interest: its value rises and falls with the price of the commodity it is linked to. And precisely because it is not a fund, it does not have to respect the diversification constraints: it can concentrate on a single asset.

“Debt security” may sound risky: if the issuer fails, what happens? This is where the **collateral** comes in – the guarantee: a set of assets put aside to protect investors, a little like the house securing a mortgage. ETCs are issued by a special-purpose vehicle, a company created for this sole purpose, whose assets are separate from those of the product's promoter: if the promoter fails, the collateral remains available to investors and cannot be used to pay other debts.

The guarantee can take two forms, which distinguish the two great families of ETCs.

FEATURE	PHYSICAL ETC	SYNTHETIC ETC
What stands as collateral	The commodity itself (for example, bars in a vault)	Contracts that replicate the price, backed by collateral of easily sellable assets
Suited to	Precious metals, easy to store for long periods	Oil, gas, agricultural products: goods that are hard or impossible to store
Price tracked	Spot price	Price of futures contracts

TABLE 2 The two ETC families compared

3.3 Physical ETCs: gold in the vault

For precious metals – gold, silver, platinum, palladium – the most common solution is the physical ETC. The issuer buys the bars and deposits them in high-security vaults, in centres such as London, Zurich or Singapore, following the standards of the industry associations that certify the quality of the metals and inspect the places of custody.

The detail that matters is that the bars are **allocated**: each bar is identified by its serial number, assigned specifically to the product and kept separate from the vault's general stocks. It is not a generic claim on the depositary bank: it is identified metal, reserved for those who have invested. Each security also embodies a right to a precise quantity of metal: an entitlement of 0.1 ounces, for example, means that for every security the depositary holds 0.1 ounces of gold.

The price of a physical ETC thus tracks the commodity's **spot** price: the price at which the asset is bought or sold today, for immediate delivery. You get the performance of gold without having to concern yourself with custody and insurance.

IN PLAIN WORDS

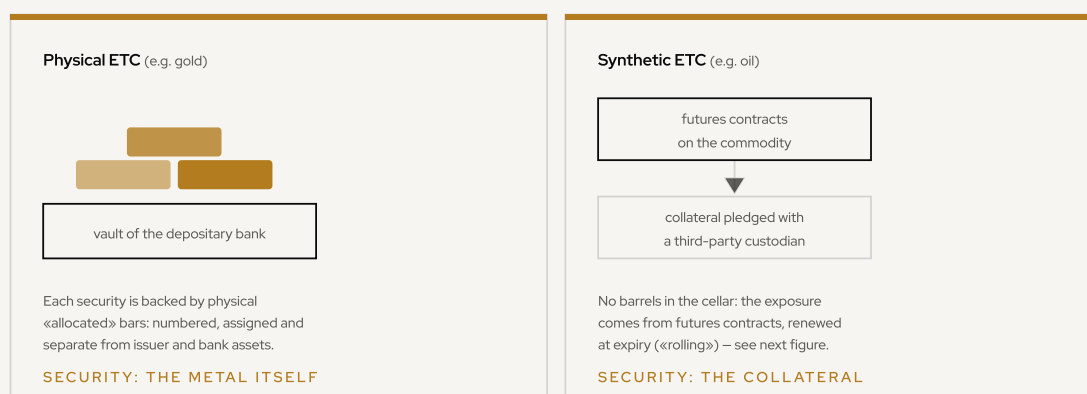
An allocated bar is like a car left in a supervised car park: it is registered by its number plate and, at the end, they hand back precisely that car. A generic deposit, by contrast, is more like paying banknotes into a bank: you will get the same amount back, but not the same notes, which in the meantime merge into the bank's assets. With allocated bars the metal remains identified and reserved for the product.

3.4 Synthetic ETCs and futures contracts

Oil, natural gas, wheat, maize: storing them for years would be costly, complicated or impossible. No issuer fills warehouses with grain in order to replicate its price. For these commodities the synthetic ETC is used: the product does not own the asset, but replicates its performance through financial contracts, typically linked to futures; the exposure remains in any case backed by collateral deposited as a guarantee.

A **future** is a standardised agreement by which two parties commit today to exchanging a precise quantity of an asset at a future date, at a price fixed now. It is an instrument born of practical needs: a pasta maker who wants to lock in today the price of the wheat it will collect in six months buys a future and shelters itself from surprises.

The price of a future does not coincide with the spot price. Whoever commits to delivering you oil in three months must, in the meantime, store it, insure it and forgo the interest on the money tied up. These costs, known collectively as the *cost of carry* – the cost of maintaining the position over time – are reflected in the price of the contract.



Storing oil, gas or wheat is impractical: for nearly every commodity other than precious metals, futures are used instead.

FIGURE 5 Physical and synthetic ETCs

Illustrative diagram

3.5 Contango, backwardation and rolling

There is one crucial detail: futures expire. An ETC on oil never wants to take delivery of the barrels, so shortly before expiry it sells the contract it holds and buys one with a later expiry. This continual renewal – moving from one contract to the next – is called **rolling**, and it is the silent engine of these products' returns.

Rolling can cost or pay, depending on the shape of the price curve. Let us take a hypothetical example with round numbers. Today oil is worth €100 a barrel on the spot market, while the future expiring in one month costs €102. When the distant contracts cost more than spot, the market is in **contango**: the price curve slopes upward. The ETC buys at 102; as the days pass, if spot stays at 100, the contract's

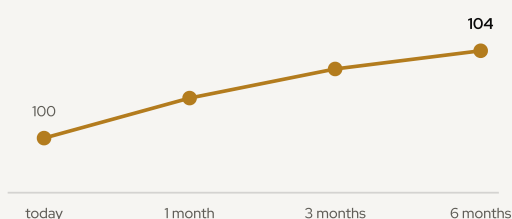
price slides towards 100, because at expiry future and spot coincide. At that point the ETC sells at around 100 and buys the following month's contract at 102: it has lost €2 on 102, almost 2%, without oil having moved a cent. Repeated month after month, this cost adds up. The gain or loss from the renewal is called the *roll yield*.

The opposite situation is called **backwardation**: the distant contracts cost less than spot and the curve slopes downward. With spot at €100 and the one-month future at €98, the ETC buys at 98 a contract which, other things being equal, drifts towards 100: here rolling generates a gain.

IN PLAIN WORDS

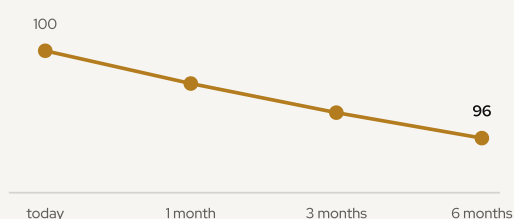
Rolling is rather like a subscription that has to be renewed every month. If the service is always worth 100 but each renewal costs 102, you lose €2 a month even though nothing has changed: that is contango. If instead the renewal costs 98 for a service worth 100, each renewal leaves you something in your pocket: that is backwardation.

Contango – the curve rises



Rolling costs you: sell the expiring contract at 100 and buy the next one at a higher price.

Backwardation – the curve falls



Rolling pays you: sell at 100 and buy the next expiry at a lower price.

FIGURE 6 Rolling: contango and backwardation

Illustrative example, hypothetical prices

3.6 Why an ETC can return more (or less) than its commodity

The point to take home: the return of an ETC built on futures can differ, even considerably, from the movement of the spot price you read in the papers. Over time that return is the sum of three components: the change in the spot price, the roll yield we have just seen, and the *collateral yield*, that is, the return on the collateral: with futures almost everything is paid at expiry, and in the meantime the idle cash can earn interest in low-risk instruments.

Of the three components, the roll yield is often the main culprit for the gap between a futures index and the spot price: this is shown clearly by the breakdown of the annual returns of Brent crude from 1992 to 2024 (source: Bloomberg, 2024).

There are two practical consequences. First: before buying an ETC, check in the product documentation whether it replicates the spot price (typical of physical ETCs) or a futures index (typical of synthetic ones). Second: if oil rises by 20% in a year, it is by no means certain that an ETC on oil will rise by 20%. And the usual reminder applies: commodities are volatile and the invested capital is at risk.

KEY TAKEAWAYS

- An ETC is not a fund: it is a debt security backed by collateral.
- It exists because the UCITS rules forbid funds from backing a single commodity.
- Physical ETCs keep the metal in vaults, in allocated, identified bars; synthetic ones use futures contracts.
- As futures are rolled, contango and backwardation can erode or boost the return.
- The return of a futures-based ETC can differ from the spot price: always check what the product replicates.

Invested capital is at risk: its value can fall as well as rise.

04

A promise
with a signature.

Not everything listed on an exchange is a fund. ETNs are bonds that promise the return of an index: what matters here is understanding how they work, why the strength of their issuer weighs so heavily, and what protections to look for before buying one.

4.1 A bond that chases an index

ETN stands for exchange-traded note. Behind the name lies a simple idea: a bond, that is, a debt security. The issuer — a bank, or a company created for the purpose — receives your money and in exchange makes you a promise. Not the promise of paying you a fixed interest, as a traditional bond would, but that of paying you the return of something: an index, a commodity, a currency pair.

On the exchange an ETN is bought and sold exactly like an ETF: same securities account, same hours, prices updated throughout the day. The resemblance, however, ends there. An ETF is a fund that genuinely owns the securities it tracks. An ETN, in its simplest form, owns nothing: it is a written commitment. A listed IOU.

4.2 The crucial difference from an ETF: where your money is

When we discussed ETFs, we saw that the fund's assets are kept separate from those of the company that manages it: if the company fails, the securities remain the investors'. With ETNs this protection is not automatic. A promise is worth as much as whoever makes it: if the issuer is no longer able to pay, the promise may be worth little or nothing, even if the index it tracks has performed superbly.

This is why, faced with an ETN, the first question is not “what does it track?” but “what happens if the issuer fails?”. The answer depends on the product's structure, which comes in two kinds: with or without collateral.

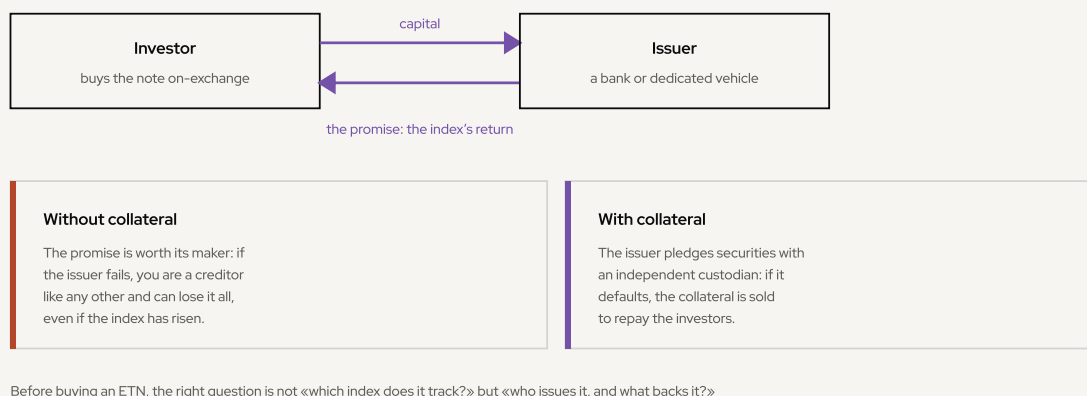


FIGURE 7 The ETN: a promise from the issuer

Illustrative diagram

4.3 Collateralised ETNs: a promise with a pledge

A collateralised ETN is protected by collateral: assets set aside as security for investors, rather like a pledge. These ETNs are issued by a special purpose vehicle, a legal entity created solely for this purpose and separate from the group that established it: its assets cannot be used to pay the group's debts, should the group fail.

The security can take two forms:

- **Physical assets.** The ETN holds the very assets it tracks – gold bars stored in a vault, for example – in a segregated account, meaning one kept separate and reserved for the product.
- **A swap contract plus collateral.** The swap is a contract under which a counterparty, usually a large investment bank, undertakes to pay the ETN the asset's return. And what if that bank were to fail? To cover the risk, the counterparty deposits collateral made up of highly liquid assets – easy to sell quickly – which the issuer can liquidate to repay investors.

The collateral is valued every day at market prices and deposited with a prudential “discount”, known as a haircut. An example in round numbers: if the ETN is worth €100 and the discount is 10%, the collateral is counted at only 90% of its value: to cover €100, the counterparty must therefore deposit assets worth roughly €111 ($100 \div 0.90$). That way, even if the value of the collateral were to slip a little, the coverage would remain complete.

IN PLAIN WORDS

Imagine lending €100 to an acquaintance. If you rely on his word alone, you are holding the equivalent of an uncollateralised ETN. If instead you have him leave you his watch as a pledge, worth about €111, you can sleep soundly: if he fails to repay you, you sell the watch and recover your money. That pledge is the collateral. And the extra €11 of value is the haircut: a safety margin, in case the watch fetches less than expected.

4.4 Uncollateralised ETNs: the bank's signature is what counts

Uncollateralised ETNs are generally issued directly by banks and hold no assets at all. Their value depends entirely on the issuer's creditworthiness, that is, on its ability to repay its own debts. If the market begins to doubt the bank's soundness, the ETN's price can fall even while the index it tracks is rising.

In the extreme case of the issuer's failure, whoever holds the ETN becomes an unsecured creditor: they join the queue with all the other creditors and recover only what is left, often a fraction. The financial crisis of 2008 reminded the world that even large, famous banks can fail. And it is the most important lesson of this chapter: with an uncollateralised ETN you are not just betting on an index, you are extending credit to a bank. Invested capital is always at risk; here, one more risk is added to the market ones.

4.5 What they are for, in practice

If they carry an extra risk, why do they exist? Because they reach where ETFs cannot. As you saw in [chapter 3](#), the European rules on funds (the UCITS rules) forbid an ETF from concentrating on a single asset. The debt-security structure of ETNs overcomes this limit in a legal, regulated way. The typical uses are:

- **Single commodities:** gold, oil, natural gas, through ETCs (exchange-traded commodities), the family of ETNs devoted to commodities.
- **Currencies:** the movement of a currency pair, for example euro against dollar, for short-term trades or to protect against exchange-rate risk.
- **Short and leveraged strategies:** instruments that gain when the market falls (short) or that amplify its movements (leverage), used above all in phases of high volatility, that is, when prices swing widely. They are designed for short horizons, not for the bottom drawer.
- **Cryptocurrencies:** single digital coins or baskets, almost always in collateralised form. We will come to them in [chapter 6](#).

Before buying an ETN, ask yourself three questions: is it collateralised? Who issues it? What exactly does it track? The answers are in the product's information documents. If even one of them is unclear to you, stop and ask.

KEY TAKEAWAYS

- An ETN is an exchange-listed debt security: it promises the return of an index or an asset.
- Unlike an ETF, there is not always a segregated pool of assets: the issuer's strength is what counts.
- In collateralised ETNs a pledge (the collateral) protects the investor if the issuer fails.
- In uncollateralised ETNs you are a creditor of the bank: if it fails, you join the queue.
- Before buying, always ask: is it collateralised, who issues it, what does it track?

Invested capital is at risk: its value can fall as well as rise.

05

Three acronyms,
three natures.

Three near-identical acronyms, three very different instruments. Set side by side, they reveal what matters: who protects you if the issuer fails, when an ETP makes more sense than a mutual fund or a certificate, and how to decode the name of a listed product before you even open its factsheet.

5.1 The difference that matters: fund or debt security

In the previous chapters you met the three acronyms one at a time. Here we set them side by side, because the truly decisive difference is just one: **the ETF is a fund, while ETCs and ETNs are debt securities.**

A fund directly owns the securities it invests in, and those assets are *segregated*: kept separate, by law, from the accounts of the company that manages it. If the company fails, the securities remain the investors'. A debt security, by contrast, is a promise to pay: it is worth as much as whoever signs it. Unless it is *collateralised*, that is, backed by real assets (gold bars, easily saleable securities) deposited with a third party and likewise kept separate from the assets of the product's issuer.

	ETF	ETC	ETN
Legal nature	Investment fund: the shares represent a real pool of securities	Debt security, almost always backed by deposited assets	Debt security, backed or not
Segregated assets	Yes, always	Yes, if collateralised: the security sits in a special purpose vehicle, a separate entity created for the purpose	Only if collateralised; if unbacked, no
Issuer risk	Practically absent	Limited, thanks to the security provided	Full if unbacked: the value depends on the soundness of the issuing bank
UCITS rules	Yes, as a rule	No	No
Typical underlyings	Diversified indices of shares, bonds, commodity baskets	Single commodities (gold, oil, gas) or commodity baskets	Cryptocurrencies, currency pairs, concentrated indices, short or leveraged strategies
What it is for	Building the diversified backbone of the portfolio	Adding a specific commodity	Accessing exposures forbidden to funds

TABLE 3 The difference that matters: fund or debt security

One clarification: the ETC is not a third family in its own right, but an ETN specialised in commodities. Products on cryptocurrencies, on currencies and short or leveraged products are also, technically, ETNs. UCITS is the European regime that protects retail investors by imposing, among other things, minimum diversification rules: it is precisely because it forbids funds from concentrating on a single asset that, to buy just gold or just one cryptocurrency, you need a debt security rather than an ETF.

IN PLAIN WORDS

Imagine leaving your bicycle at a supervised depot: even if the depot goes bust, the bike is yours and you take it back. That is the ETF, with its segregated assets. An unbacked ETN, instead, is like a gift voucher issued by a shop: if the shop closes, the voucher risks being worth no more than the paper. The ETC sits in between: it is a voucher, but with the goods already set aside in a separate warehouse, ready to repay you.

5.2 ETPs, mutual funds, certificates and derivatives: to each its own

ETPs are not the only way to invest. It is worth comparing them with the other most common vehicles.

	ETP	MUTUAL FUND	CERTIFICATE	DERIVATIVES (FUTURES AND SIMILAR CONTRACTS)
Where you buy it	On the exchange, through any broker	Directly from the manager or at a bank	On the exchange, usually through the issuer	On dedicated trading accounts
When you can trade	At any time the market is open	At most once a day	During market hours	During market hours
How the price is formed	Stays close to the value of the underlying thanks to arbitrage	Only at the value of the assets divided by the shares (the NAV)	Set by the issuer	Calculated with a predetermined formula
Issuer risk	Depends on the structure (see table above)	No: segregated assets	Yes, in full: issued by a bank	Counterparty risk; they require security deposits
Suited to	Those who want low costs, transparency and flexibility	Those seeking active management, in no hurry to trade	Those seeking particular payout formulas and prepared to accept the risks	In practice, professional investors

TABLE 4 ETPs, mutual funds, certificates and derivatives: to each its own

A few words on the less familiar entries. *Arbitrage* is the mechanism by which specialised traders buy where an asset costs less and sell it where it costs more: this carries on until prices realign, and it is the reason an ETP strays from the value of its underlyings only for brief spells. *Certificates* resemble unbacked ETNs: issued by banks, they expose you to the issuer's credit risk and do not enjoy the same transparent pricing mechanism. *Derivatives* are financial contracts whose value depends on an underlying asset: flexible, but they require dedicated accounts and security deposits known as margins.

One practical advantage of short or leveraged ETPs over derivatives: they require no margins and no securities lending, and you cannot lose more than you invested. They remain complex instruments all the same, designed for short horizons.

5.3 The name of an ETP, taken apart piece by piece

At first sight the name of a listed ETP looks like indecipherable code. In fact it follows a fairly consistent convention, and for ETFs the law even prescribes a mandatory wording. Let us take a typical example and dismantle it:

Issuer's name – S&P 500 – EUR Daily Hedged – UCITS ETF – (Acc)

1. **Issuer's name.** Who creates and manages the product: it is almost always the first element.
2. **S&P 500.** The underlying the product tracks: here, the index of the roughly 500 largest listed American companies. In its place you might find another index, or a single asset such as gold.
3. **EUR Daily Hedged.** *Hedged* means the product neutralises the swings in the exchange rate between the dollar and the euro, so you earn the American index's return without the currency risk. *Daily* indicates that the hedge is recalculated every day.
4. **UCITS ETF.** The product is a fund and complies with the European protections. For ETFs this wording is a regulatory obligation: if you read ETC or ETN instead, you are holding a debt security.
5. **(Acc).** Tells you what happens to the dividends: Acc (or C) stands for accumulation, meaning the proceeds are reinvested automatically. The alternative is *Dist* (or *Dis*, *D*): the dividends are paid into your account.

Other tell-tales worth knowing: *Physical* signals that the product actually holds the asset it tracks (physical replication), rather than using financial contracts (synthetic replication); *2x Daily Leveraged* indicates double leverage recalculated every day; *Short*, an exposure that gains when prices fall. When these last two appear, the product amplifies gains and losses: if the mechanism is not clear to you, better to leave it alone.

IN PLAIN WORDS

The name of an ETP works like a food label: the ingredients (the underlying), the quality mark (the UCITS rules), the warnings (leverage, short) and even the serving instructions (dividends paid out or reinvested). Ten seconds of reading is enough to keep the wrong product out of your basket.

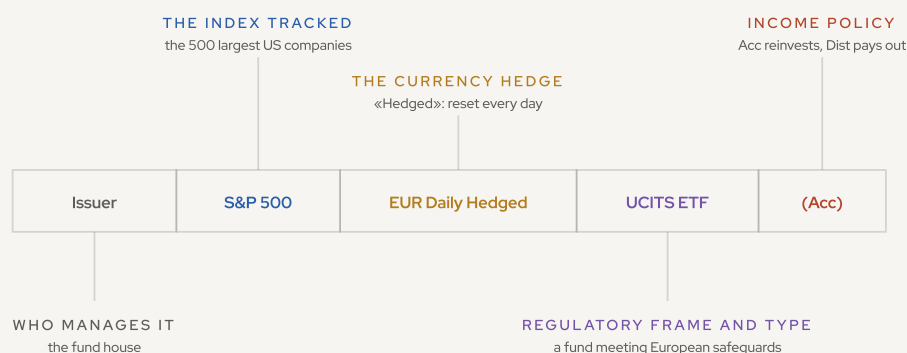


FIGURE 8 The anatomy of an ETP's name

Generic example: no real product

5.4 Three questions before you place the order

To recap: before entering an order on an ETP, it pays to answer three questions.

1. **Is it a fund or a debt security?** If the name says ETF, the assets are segregated. If it says ETC or ETN, move on to question two.
2. **Is the debt backed?** A collateralised ETC or ETN limits issuer risk; an unbacked one turns you, in the worst case, into a mere creditor of the bank. The information is in the product's documentation.
3. **Do I understand every part of the name?** Currency, exchange-rate hedging, dividend treatment, any leverage: if a word remains obscure, clear it up before investing, not after.

And the underlying reminder always applies: whatever structure you choose, invested capital is at risk and can fall in value.

KEY TAKEAWAYS

- The ETF is a fund with segregated assets; ETCs and ETNs are debt securities.
- Issuer risk depends on the security provided: always check whether an ETC or ETN is collateralised.
- Only ETFs follow the UCITS rules; ETNs exist to reach what funds are forbidden to hold.
- Unlike mutual funds, ETPs trade on the exchange at any time the market is open.
- An ETP's name already tells you almost everything: underlying, currency hedging, dividends, any leverage.

Invested capital is at risk: its value can fall as well as rise.

06

Special instruments,
special care.

So far we have talked about ETPs that track a market as it is. There are, however, instruments that do something more particular: make money when prices fall, multiply the movements of a single day, neutralise the effect of exchange rates, or give access to cryptocurrencies without the technical complications. They are powerful but delicate tools: understanding how they work – and above all how long to hold them – is what separates informed use from a nasty surprise.

6.1 Making money when the market falls: short ETPs

In the jargon of the markets, a **short** position is a bet on falling prices: it makes money if the price of an asset *falls*. A **short ETP** applies this logic in the simplest possible way: it tracks the daily change of an index in reverse. If the index loses 1% today, the short ETP gains roughly 1%; if the index rises, the ETP loses.

Traditionally, betting on a fall required complex operations: borrowing securities, trading options or opening margin accounts, that is, accounts with security deposits required by the intermediary. With a short ETP, none of this: you buy and sell on the exchange like any share and, above all, you cannot lose more than you have invested.

What is it for? Mainly two things: temporarily protecting a portfolio against an expected fall (a form of hedging), or betting on a market decline. In both cases these are short-lived tactical moves. We shall see why in a moment.

6.2 Leveraged ETPs: movements multiplied, every day

A **leveraged ETP** multiplies the daily change of the index by a fixed factor, for example 2 or 3. With 2x leverage, if the index gains 1% in a day the ETP gains roughly 2%; if the index loses 1%, the ETP loses 2%. In practice, with €1,000 you obtain the market exposure that would normally require €2,000.

Combined versions exist too, the leveraged short ETPs: a -2x leverage means gaining 2% when the index loses 1%, and vice versa.

The most important word in this definition is **daily**. The promised leverage holds for a single trading day. Over longer periods the result can be very different from what you expect, and the reason has a precise name: the daily reset.

6.3 The daily reset and compounding

Every evening, at the market close, the leveraged ETP “resets the meter”: the next day the leverage applies to the new value, not the starting one. Returns thus add up in compound fashion, day after day: it is the effect of **compound returns** (*compounding*). And when the market swings up and down, this effect works against you.

An example in round numbers. You invest €100 in a 2x leveraged ETP on an index worth 100 points which alternates for four days: +5%, -5%, +5%, -5%.

DAY	INDEX	INDEX VALUE	2X LEVERAGED ETP	ETP VALUE
Start	–	100.00	–	€100.00
1	+5%	105.00	+10%	€110.00
2	-5%	99.75	-10%	€99.00
3	+5%	104.74	+10%	€108.90
4	-5%	99.50	-10%	€98.01

TABLE 5 The daily reset and compounding

At the end, the index has lost barely 0.50%. You would expect the 2x leveraged ETP to lose twice that, i.e. 1%? Instead it loses almost 2%: double the double. The more volatile the market – the wider its swings – and the more days go by, the larger this gap grows. In a market that climbs steadily, on the contrary, compounding can even amplify gains beyond the promised leverage. But it is a bet on the path, not just on the destination: two roads that arrive at the same point can leave a leveraged ETP with very different results.

IN PLAIN WORDS

Think of a €10 jumper: if the price rises by 50% it reaches €15; if it then falls by 50%, it does not return to €10 but drops to €7.50, because the second calculation starts from a different base. Percentages do not cancel each other out: falls always weigh a little more than rises of equal size. Leverage doubles or triples every movement, so it also doubles or triples this flaw. That is why, day after day, a swinging market wears down a leveraged ETP even if it ends up back where it started.

SAME STARTING POINT, DIFFERENT OUTCOME – INDEX VS 2X LEVERAGED ETP

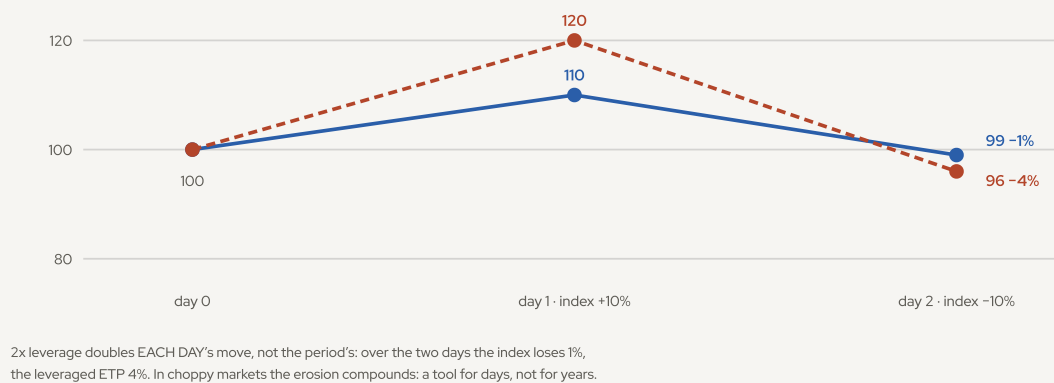


FIGURE 9 Leverage is reset every day

Hypothetical example for illustration only

6.4 Trading tools, not buy-and-hold investments

From all this follows a warning that must be given without mincing words: **short and leveraged ETPs are short-term trading instruments**, designed to be held for days, sometimes hours. They are not suited to the buy-and-hold investor, the one who buys and leaves the investment untouched for months or years. Held for long, the daily reset and volatility can erode value even if the call on the market's direction proves right.

Whoever uses them must check the position every day, know clearly in advance how much they are prepared to lose, and remember that invested capital is always at risk. If this profile does not sound like you, it is entirely reasonable to leave these instruments alone: no long-term portfolio needs them.

6.5 Currency-hedged ETPs: switching off the exchange-rate effect

When you invest in assets denominated in a currency other than the euro, your return depends on two things: how the asset performs and how the exchange rate moves. This is the so-called **currency risk**, and it can weigh heavily. An example with round numbers: if American shares return 9% in dollars and in

the same year the dollar strengthens by 13% against the euro, the euro investor pockets about 23%; if instead the dollar weakens by 13%, the same investor ends the year about 5% down despite having picked the right market. This is not theory: in 2014 the dollar gained 13.6% against the euro, in 2016 just 3.3% (Bank of Italy year-end reference rates). Sometimes the exchange rate helps; at other times it pulls the other way. And it applies even to seemingly “home-grown” investments: commodities, for instance, are almost always quoted in dollars.

A **currency-hedged ETP** – the label on the product will say *hedged* – tracks the underlying asset while neutralising the effect of the exchange rate. It does so using currency forward contracts (the so-called *FX forwards*): agreements that fix today the rate at which two currencies will be exchanged at a future date. It is like booking your exchange rate in advance. The hedge uses contracts that typically run for a month and are rolled at expiry, and in “Daily Hedged” products the amount hedged is recalculated every day; it has a cost that shows up in the return.

When does it make sense? When you want your investment to reflect only the asset's performance, without adding a bet on currencies you never chose to make.



Hedging is not free: it costs roughly the interest-rate gap between the two currencies, plus the contracts' costs.

FIGURE 10 Currency hedging in a nutshell

Illustrative diagram

6.6 Cryptocurrency and currency ETPs

Buying cryptocurrencies directly involves steps that put many investors off: opening an account on an exchange platform, managing a **wallet** (the digital purse where the coins are kept) and safeguarding the **private keys**, the secret codes that give access to the funds. Whoever loses them loses everything; and recent history counts spectacular failures of platforms where clients had left their savings.

A **cryptocurrency ETP** lets you gain exposure to a single cryptocurrency or a basket without touching any of this: you buy it on the exchange from your own securities account, like a share. The most solid products actually hold the cryptocurrencies they track (physical backing) and keep the private keys in *cold storage*, that is, on devices disconnected from the internet and kept in protected locations, with multiple approvals for every transfer.

Beware, though: the ETP solves the custody problem, not the risk problem. Cryptocurrencies remain a young and extremely volatile asset class, with swings that can burn through a sizeable share of your capital in a few weeks. And if the issuer lends out the underlying cryptocurrencies to generate extra yield, further risks are added, barely visible to the end investor. A prudent rule: commit only money whose total loss you could accept.

A final word, lastly, on **currency ETPs**: they track the movement of a currency pair (for example euro/dollar) or of currency baskets. They serve tactical or protective moves tied to exchange rates and, like the short and leveraged products, they are specialist instruments: short horizons and very clear ideas.

KEY TAKEAWAYS

- A short ETP gains when the index falls; a leveraged ETP multiplies the movements of a single day.
- The leverage resets every evening: over several days, in volatile markets, the return can drift far from the expected one.
- Short and leveraged products are short-term trading instruments, not buy-and-hold investments.
- Currency hedging (hedged) neutralises the effect of the exchange rate, at a cost.
- Crypto ETPs spare you wallets and private keys, but the risk remains extreme: only money whose loss you can accept.

Invested capital is at risk: its value can fall as well as rise.



PART TWO · CHAPTERS 7-9

The **machinery.**

The mechanism that keeps an ETP tied to its index, the practice of buying on the exchange and the costs – visible and invisible – that decide the long-run result.

07

The engine,
up close.

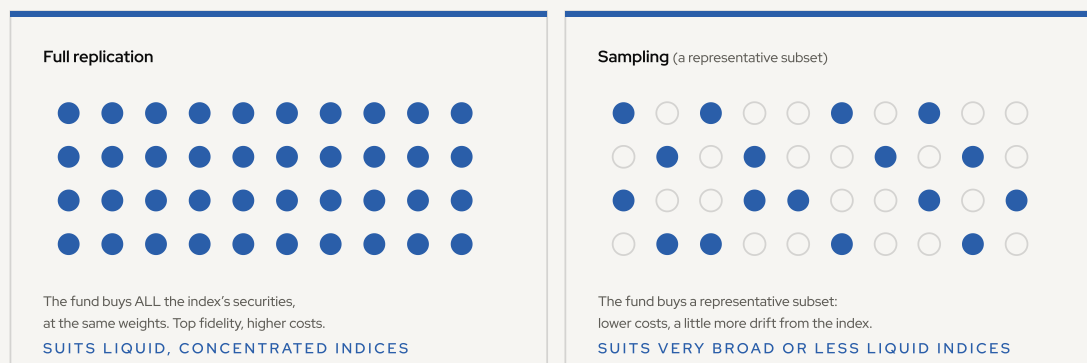
From the outside, an ETP shows only a price on the exchange and an index to follow. This chapter looks inside: how a fund manages to reproduce its index, who physically manufactures the shares, and which mechanism keeps the exchange price anchored to the real value. Understanding it helps you tell apart products that look identical but, inside, are built in different ways.

7.1 Physical replication: actually buying the index's securities

The most intuitive way to follow an index is to own it. An ETF using **physical replication** actually buys the securities of the index it wants to mirror and holds them in its portfolio. If it does so in full, each security at its proper weight, this is called **full replication**. It works well when the securities are few, easy to buy and stable over time: an index of 100 large stocks, revised four times a year, lends itself perfectly.

But some indices are enormous. The MSCI World, for example, counts around 1,400 stocks from all over the world (source: MSCI, 2024), and every year hundreds of securities may join or leave. Buying them all, and then updating the portfolio at every revision, would cost too much. In these cases the manager turns to replication by **sampling**: it selects a sample of securities that, taken together, behaves like the whole index. Just as in an opinion poll: you do not need to interview every Italian to estimate an opinion – a well-built sample will do.

The trade-off is clear. Full replication is more faithful, but trading costs rise if the index changes often. Sampling costs less, but the result can drift a little from that of the index. By how much, and how to measure it, we shall see in chapter 9.



In both cases the securities belong to the fund and sit with a depositary bank: the assets remain segregated and protected.

FIGURE 11 Physical replication: full or sampled

Illustrative diagram

7.2 Securities lending: a small income, one extra risk

Many physically replicating funds top up their result with **securities lending**: they temporarily lend part of the shares in the portfolio to other market operators, in exchange for a fee. Like someone letting out a flat that would otherwise stand empty: the property remains theirs, but in the meantime it earns something. This income is often used to lower the product's costs; how much it yields, and what share goes to the fund, is set out in the product documents.

It is not, however, a gain without a counterpart. Lending adds **counterparty risk**, that is, the risk that whoever borrowed the securities fails to return them. To guard against this, the borrower posts **collateral** – assets pledged as security: the equivalent of the deposit a tenant pays the landlord. If everything runs smoothly the collateral is never needed; if the borrower defaults, the fund sells it to recover the value. The protection is robust, but it does not reduce the risk to zero.

7.3 Synthetic replication: an exchange of returns

There is a second way to replicate an index: not buying its securities at all. An ETP using **synthetic replication** signs a contract with a large bank called a **swap** – literally, an exchange. Put simply, the agreement runs like this: I hand you the return of the basket of securities I hold, you hand me the return of the index. The fund obtains the promised performance without owning the index's securities.

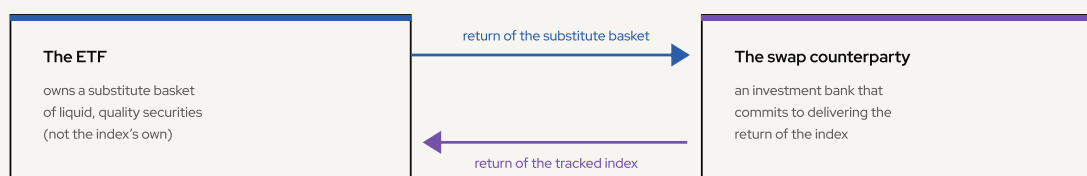
Why go to such lengths? For three reasons: precision, because the index return is owed by contract; lower trading costs; and access to markets that would otherwise be impractical. A fund cannot store oil or wheat in a warehouse, but it can receive their return through a swap.

The price to pay is, once again, counterparty risk: if the swap bank failed, the fund might not receive what was agreed. That is why the great majority of synthetic ETPs are protected by collateral.

There are two structures, and a broad outline is all you need. In a **fully funded** swap the investors' money passes to the counterparty, which in exchange deposits with an independent custodian collateral worth as much as, or more than, the sum received. In an **unfunded** swap the money stays at home: the issuer – the company that runs the product – invests it in a basket of solid securities, government bonds for example, and exchanges only the returns with the bank. In both cases a **haircut** is applied to the collateral: a prudential discount on the value of the guarantees, a cushion for peace of mind even if their prices fall.

IN PLAIN WORDS

Picture two neighbours: you grow a vegetable garden, he keeps an orchard. At the end of the season you exchange the value of the harvests: you give him what your garden yielded, he gives you what his orchard yielded. Each obtains the result of the other's land without turning a single sod. A swap works the same way: the ETP hands over the return of the securities it holds and receives in exchange the return of the index promised to investors.



For you the result is identical to physical replication: the ETF moves like the index. What changes is the risk: if the counterparty failed, the fund would still own the substitute basket, and European rules cap the exposure to each counterparty at 10% of assets (in practice it is often far less, and covered by collateral).

USEFUL WHERE PHYSICAL REPLICATION IS IMPRACTICAL OR INEFFICIENT:
EMERGING MARKETS, VERY BROAD INDICES, COMMODITIES

FIGURE 12 Synthetic replication: the exchange of returns

Illustrative diagram

7.4 The primary market: where shares are born

When you buy an ETP from your securities account you do so on the exchange, on the so-called **secondary market**: existing shares changing hands between investors. Behind the scenes, however, there is a **primary market** reserved for a few large players: the **authorised participants**, generally investment banks and market makers – intermediaries that continuously quote buying and selling prices. Only they deal directly with the issuer.

The **creation** process works like this: the authorised participant delivers to the issuer the index's securities, or their value in cash, and receives in exchange brand-new shares of the ETP, which it then sells on the exchange to investors. **Redemption** is the exact reverse: the authorised participant returns shares to the issuer, which cancels them and hands back securities or cash.

The key point: the number of shares of an ETP is not fixed. It grows and shrinks every day, following demand. This is a profound difference from the shares of a company, which exist in a given number and whose price depends solely on supply and demand. The shares of an ETP multiply like copies of a document: as many are made as are needed, and their value stays anchored to the original – the securities the fund holds.

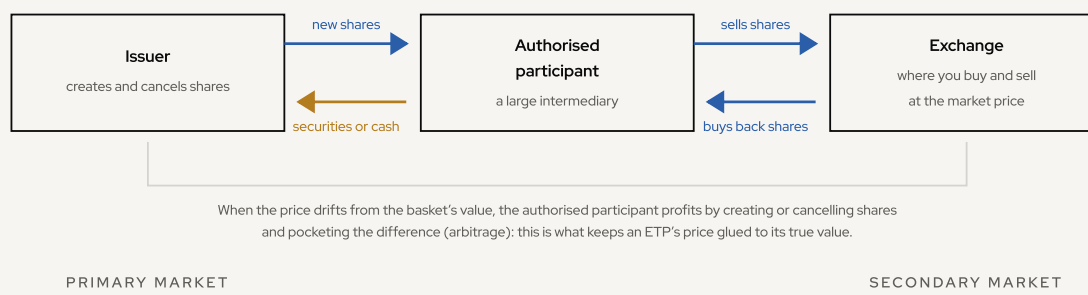


FIGURE 13 Creation and redemption: where shares are born

Illustrative diagram

7.5 NAV, iNAV and arbitrage: the price's thermostat

What is a share really worth? The answer comes from the **NAV**, short for net asset value: everything the fund owns, minus its liabilities, divided by the number of shares. The official NAV is calculated once a day, after markets close. But the exchange is open for hours: to find your bearings during the day there is the **iNAV**, the indicative NAV, an estimate of the share's value updated almost in real time as the prices of the underlying securities move.

And what if the exchange price drifted away from the real value? Enter **arbitrage**: buying something where it costs little and reselling it where it is worth more, pocketing the difference.

An example with round numbers, purely hypothetical. The securities inside an ETF are worth €51 per share, but on the exchange the share can be bought at €50. The authorised participant buys shares at €50, hands them back to the issuer and receives securities worth €51: one euro of profit per share. Its own purchases, however, push the exchange price upwards, until the discount disappears. If instead the share cost more than its value, the authorised participant would travel the opposite route: it would create new shares by delivering securities and sell them on the exchange, pulling the price back down.

The result is an automatic thermostat: as soon as the price strays from the value, someone profits by bringing it back into line. That is why, in normal conditions, an ETP trades at a price different from its NAV only for short spells. No mechanism, however, eliminates market risk: if the index falls, so does the value of the shares. The capital invested always remains at risk.

IN PLAIN WORDS

Think of two street markets in the same town: at the first, oranges cost €2 a kilo; at the second, €1. Whoever buys them at the second and resells them at the first pockets the difference. But in doing so they push prices up where they were low and down where they were high: soon the two markets fall into line. Between an ETP's exchange price and the value of the securities it holds, the same thing happens every day.

KEY TAKEAWAYS

- Physical replication: the fund buys the index's securities – all of them (full replication) or a representative sample.
- Securities lending lowers costs but adds counterparty risk, mitigated by collateral.
- Synthetic replication: the index return comes from an exchange (swap) with a bank, protected by collateral.
- Shares are created and extinguished on the primary market, run by the authorised participants.
- Arbitrage keeps the exchange price anchored to the NAV, the share's real value.

Invested capital is at risk: its value can fall as well as rise.

08

From the click
to the portfolio.

You have chosen what to buy: now comes the concrete part. What you need in order to trade, where and when ETPs are traded in Italy, how to read the prices and which type of order to use so you pay the right price. These are practical details, but they are often worth more than a great deal of theorising about markets.

8.1 What you need: an ordinary securities account

Buying an ETP requires nothing exotic. All you need is a **securities account** (also called a custody account): a container, linked to your current account, in which the bank holds the financial instruments you own. Practically every Italian bank offers one, as do **online brokers** – intermediaries specialising in buying and selling financial instruments over the internet.

The operation itself is simple and entirely digital: you log into the platform, look up the ETP by its identifying code (the **ticker**, a short abbreviation, or the **ISIN** code, a kind of international identity number for the instrument), state how many units you want to buy, check the summary and send the order. Five steps, a few minutes. The part that deserves attention is not the "where to click" but the *how* and the *when*: that is where the difference lies between a well-executed purchase and one paid over the odds.

8.2 Where and when: Borsa Italiana, the ETFplus segment

ETPs are bought and sold on the stock exchange, exactly like shares. In Italy the reference market is **ETFplus**, the segment of Borsa Italiana (the Italian stock exchange) dedicated precisely to ETFs, ETCs and ETNs. Continuous trading takes place on business days, roughly from 9:00 to 17:30 (source: Borsa Italiana).

Within that window you can enter orders at any time and see them executed within moments, if price conditions allow. Outside those hours, orders wait until the market reopens. As we shall see shortly, however, not all moments of the day are equal: some are to be preferred, others avoided.

8.3 A price with two faces: the bid-ask spread

When you look at an ETP on the platform, you do not see just one price: you see two. The **bid** price is the one at which the market is willing to buy from you; the **ask** price is the one at which it is willing to sell to you. The difference between the two is called the **bid-ask spread** – the «bid-ask differential» you met in chapter 1 – that is, the gap between the buying price and the selling price. It is a real cost, even though it appears on no account statement.

An example with round numbers. An ETP is quoted at €99.95 bid and €100.05 ask. If you bought and resold a moment later, you would lose 10 cents per unit: 0.1%. On an investment of €10,000 that is €10. Not much? It depends: the spread is paid on every trade, on the way in and on the way out. The tighter the spread, the less it costs to get in and out. And that is why choosing the right moment and the right type of order really matters.



It is the implicit, one-off cost of every round trip: you buy at 100.05 and, all else being equal, sell back at 99.95. The more liquid the product and its underlying, the thinner the spread.

FIGURE 14 Bid, ask and the spread

Hypothetical example

8.4 Order types, in brief

When you send an order you can give the platform different instructions. The three main ones:

ORDER TYPE	WHAT IT DOES	PROS	CONS
Market	Buys or sells immediately, at the best price available at that moment	Immediate execution	No control over the price: in a turbulent moment you may pay more than expected
Limit	Buys or sells only at the price you have set, or a better one	You decide the maximum (or minimum) price	If the market never reaches your price, the order is not executed
Stop	Sells automatically if the price falls below a preset threshold (stop loss); in the stop-limit variant it also adds a minimum acceptable price	Automatic protection against losses	In a fast-falling market it can sell at a price far below the threshold

TABLE 6 Order types, in brief

For an ETP, the sensible choice is almost always **the limit order**. The reason is practical: the spread can widen for a few instants, and a market order executed at precisely that instant makes you pay for the widening. With a limit, instead, you set a ceiling – for example the ask price you see on screen, or one cent above it – and in the vast majority of cases the order is executed anyway, but with the guarantee of never paying more than you decided. It is a free seat belt: there is no reason not to fasten it.

8.5 The times of day to avoid

Three situations in which spreads tend to widen, and when it therefore pays to wait:

- **The first half-hour after the open.** The market is still "finding" the right prices and the gaps between bid and ask are wider than usual.
- **The final minutes before the close.** Many operators close their positions and scale back their presence in the market: less competition, less attractive prices.
- **When the underlying's market is closed.** If at 10 in the morning you buy an ETP on American shares, the American market is still closed: whoever sells to you cannot know the updated prices of the underlying securities and protects themselves by widening the spread. Better to trade in the afternoon, when both markets are open.

The practical rule: middle of the day, the underlying's market open, limit order. Three precautions that cost nothing.

8.6 True liquidity is not what you see on screen

Here lies the most counterintuitive idea in the chapter. Many investors look at an ETP's trading volumes on the exchange and conclude: "it trades little, so it is illiquid, so I risk not being able to sell it". It sounds logical, but it is wrong. An ETP's **liquidity** – that is, the ease with which you can buy or sell it without moving the price – depends above all on the liquidity of the **underlying**, the securities the ETP replicates, not on how much the ETP itself trades on the exchange.

We saw the reason in chapter 7: ETPs are "open" instruments, and new units can be created on demand in exchange for the underlying securities. One figure makes the point: the London-listed ETPs tracking the index of the largest British shares trade on average around £49 million a day, while the underlying shares trade over £3.2 billion – the ETPs' volumes are barely 1.5% of the underlying's (source: Bloomberg, data May–November 2024). The real liquidity is the large pool, not the small one you see on screen.

Making sure this mechanism works are the **market makers**: professional operators who commit to quoting a buying price and a selling price continuously, drawing precisely on the liquidity of the underlying. On ETFplus their presence is not a courtesy: Borsa Italiana requires every listed instrument to have at least one specialist operator with quoting obligations (source: Borsa Italiana). Remember, in any case, that liquidity does not mean absence of risk: the capital invested remains exposed to market swings.

IN PLAIN WORDS

Think of the water shelf at the supermarket. If you see only ten bottles, you might fear there is not enough for everyone. But behind the shelf there is the storeroom, and behind the storeroom the supplier: as soon as the shelf empties, it is restocked. The shelf is the ETP on the exchange, the storeroom is the underlying's market, and the market maker is the assistant who keeps it stocked. How much water you can buy depends not on the shelf, but on the storeroom.

KEY TAKEAWAYS

- To buy an ETP, an ordinary securities account with a bank or an online broker is all you need.
- In Italy ETPs trade on Borsa Italiana's ETFplus segment, roughly from 9:00 to 17:30.
- Almost always use a limit order: it protects you from sudden widenings of the spread.
- Avoid the open, the close and the hours when the underlying's market is closed.
- An ETP's liquidity comes from the underlying, not from exchange volumes: do not trust only what you see on screen.

Invested capital is at risk: its value can fall as well as rise.

09

What it costs,
really.

Future returns are unpredictable; costs are not: they are the one element of an investment you know in advance and can control. Here you will learn to read the TER, to recognise the costs that appear on no factsheet, and to measure how faithfully an ETP replicates its index – numbers in hand, because an apparently minuscule difference can be worth thousands of euros over twenty years.

9.1 The TER: the most visible cost, but not the only one

The figure most often quoted when costs come up is the **TER** (total expense ratio): the product's annual running cost, expressed as a percentage. If an ETP has a TER of 0.20%, on €10,000 invested you will pay around €20 a year. You will never receive an invoice: the charge is taken day by day, in minute doses, directly from the value of the shares. You will sometimes find it labelled «ongoing charges».

The TER usually includes the management fee, administrative expenses, the licence paid to the index provider and the custody of the securities (for products holding physical precious metals, the vault as well).

But the TER does not tell the whole story. Generally left out are the costs the product incurs when it buys and sells securities internally – for example when the index changes composition and the fund has to adjust – and, often, the cost of the contracts entered into by synthetically replicating products, those that track the index through an agreement with a bank counterparty. The fullest picture is in the **KID**, the Key Information Document every product must publish: there the costs are listed item by item, with their impact on the return.

9.2 The costs you pay yourself, outside the product

Then there are the external costs: they depend not on the product itself, but on how and where you buy it.

- **The bid/ask spread**, the difference between buying price and selling price we saw in chapter 8. It is an invisible but real cost, and you pay it every time you get in and out: on a €5,000 order, a

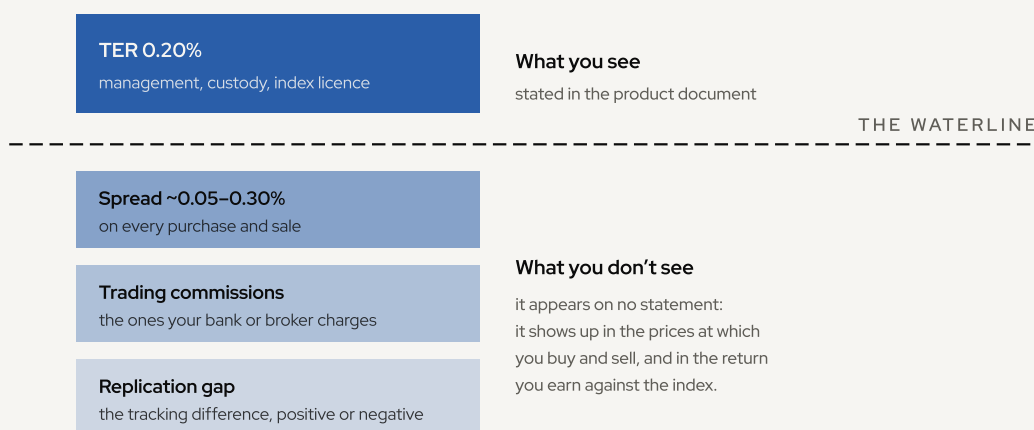
spread of 0.10% is worth €5.

- **The trading commissions** of the bank or broker – the intermediary that executes your orders: a fixed or percentage amount per trade.
- **Any platform or custody fees**, which some intermediaries charge regardless of your trades.

On top of all this comes the *imposta di bollo* (stamp duty), which we will discuss in the chapter devoted to taxation.

The moral is simple: the more trades you make, the more the external costs weigh. Those who invest for the long term with few orders mainly pay the internal costs; those who trade often can end up paying far more in spreads and commissions than they pay in TER.

THE TOTAL COST OF OWNERSHIP – INDICATIVE ONE-YEAR EXAMPLE



Add the stamp duty on securities accounts (chapter 12). The percentages vary widely from product to product.

FIGURE 15 The costs below the waterline

Indicative values for illustration

9.3 Tracking difference and tracking error: two different questions

An ETP promises to replicate a benchmark index. But how well does it keep the promise? To measure this there are two tools with similar names and different meanings.

The **tracking difference** is the distance between the product's return and the index's over a given period. If in one year the index gains 10% and the product 9.7%, the tracking difference is -0.3%. It is a measure of cost: it is almost always negative, because fees erode the return.

The **tracking error**, on the other hand, measures how much that gap *dances about* over time. It is a measure of *precision*: a product can end the year exactly level with its index (zero tracking difference) after circling around it for months (high tracking error), or stay a whisker below it with great regularity (low tracking error, negative tracking difference).

Which one should you watch? If you invest for years, what matters most is the tracking difference: in the end, what counts is how much return you lost along the way. The tracking error matters more to those who use the product for short-term trades or hedging, where precision is worth more than the final result. One caveat: there is no standard method for calculating tracking error, so figures published by different providers are not always comparable.

IN PLAIN WORDS

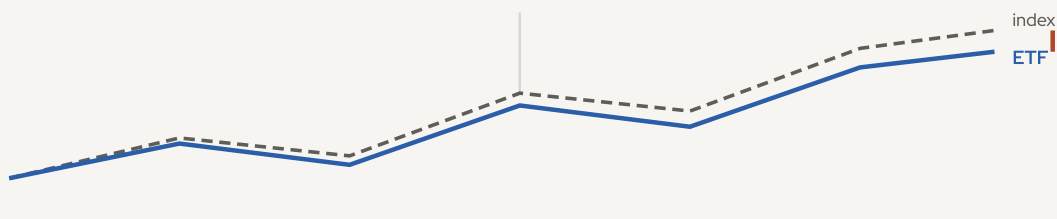
Imagine following a friend by car to the same destination. The tracking difference is how late you arrive compared with him: one, five, ten minutes. The tracking error is how erratic your driving was along the way: at times glued to his bumper, at times a kilometre behind. You can arrive together after an accordion-like journey (zero difference, high error), or stay a steady hundred metres behind with Swiss precision (low error, but a small delay at the finish).

TWO DIFFERENT MEASURES OF THE GAP TO THE INDEX

The distance at the end of the period is the tracking difference

The steadiness

tracking error: how much the gap wobbles



Tracking difference: how much return you lost (or gained) versus the index over the whole period – for long-term investors it is the measure that counts most, often more informative than the TER itself.

FIGURE 16 Tracking difference and tracking error

Hypothetical paths for illustration

9.4 Where the gap comes from

Why does a product never replicate its index to perfection? There are five main causes.

- **Costs**, first of all: the TER and internal transaction costs subtract return every day. The index, which is a pure theoretical calculation, pays nothing.
- **Sampling**: some physically replicating products do not buy all the index's securities but only a representative sample, to keep costs down. The price to pay is a less faithful replication.
- **Securities lending**: the fund may lend the securities in its portfolio to other operators in exchange for a fee. These revenues reduce costs and in some cases offset them entirely: the product may even do slightly better than its index. Beware, though: if the borrower fails to return the securities, the fund can suffer a loss.

- **Cash drag:** for technical reasons the fund always keeps a little cash on hand, for example dividends received but not yet reinvested. That cash does not follow the index and, when markets rise, holds back the return. Even the mere delay between a dividend's ex-date and its actual receipt creates a small gap.
- **Withholding taxes on dividends:** foreign dividends often have taxes withheld at source, which the theoretical index may account for differently from how the fund actually bears them.

9.5 The total cost of ownership

Putting the pieces together, the true yardstick is the **total cost of ownership**: everything the product costs you from purchase to sale. In practice: internal costs (TER, transactions, any fees on derivative contracts, minus securities-lending revenues) plus external costs (spread, trading commissions, taxes).

A hypothetical example shows why stopping at the TER can mislead.

COST ITEM	PRODUCT A	PRODUCT B
TER	0.25%	0.40%
Internal transaction costs	0.15%	0.05%
Bid/ask spread	0.10%	0.05%
Total cost	0.50%	0.50%

TABLE 7 The total cost of ownership

On paper product A looks cheaper, with a TER 0.15 points lower. But once all the items are added up, the two products cost exactly the same. The rule: never judge an ETP by its TER alone.

9.6 Twenty years on: the weight of compounded costs

Costs, like returns, compound over time: a small annual charge, repeated for decades, digs an enormous gap.

Let us do the sums with a simplified example: €10,000 invested for 20 years, with a hypothetical gross return of 5% a year. It is only a working assumption: real returns are not guaranteed and the capital invested is always at risk.

- With total costs of **0.2%** a year, the net return is 4.8%: after 20 years the capital is worth about **€25,540**.

- With total costs of 2% a year, the net return falls to 3%: after 20 years the capital is worth about €18,060.

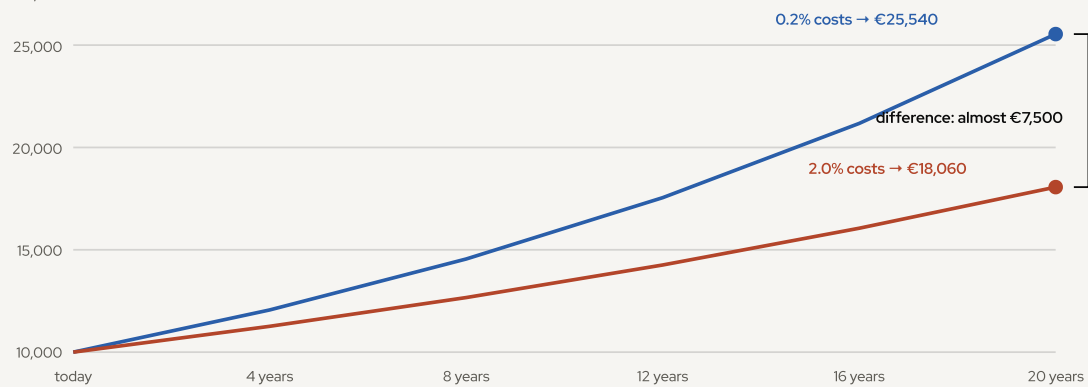
The difference approaches €7,500: almost a third less in final wealth. And looking at the gain alone, the comparison is harsher still: about €15,500 of growth in the first case, about €8,100 in the second. A cost difference of 1.8 percentage points a year has eaten almost half the gain.

That is why cost deserves so much attention: it is the one variable of an investment over which you truly have control. Choosing efficient products and limiting superfluous trades is the most reliable way to improve the final result.

IN PLAIN WORDS

Picture two identical bathtubs filled by the same tap. In one the plug seals tightly; in the other it lets a trickle of water through. After a minute you notice no difference. After twenty years with the tap running, one tub is full and the other half empty. Costs work the same way: it is not today's charge that hurts, it is the same small charge repeated for thousands of days.

€10,000 INVESTED FOR 20 YEARS AT A 5% GROSS ANNUAL RETURN



A cost gap of 1.8% a year, almost invisible in any single year, erodes nearly half the gain over twenty years.
Hypothetical example, before tax and inflation, for illustration only.

FIGURE 17 Twenty years of compounded costs

Based on a hypothetical example

KEY TAKEAWAYS

- The TER is only part of the cost: it excludes the spread, trading commissions and several costs inside the product.
- Every trade has a price: those who buy and sell often pay far more than those who hold their investment over time.
- The tracking difference measures how much you earn below the index; the tracking error measures how steady the replication is.
- Compare products on the total cost of ownership, never on the TER alone.
- Over 20 years, the difference between costs of 0.2% and 2% a year can be worth thousands of euros.

Invested capital is at risk: its value can fall as well as rise.



III

PART THREE · CHAPTERS 10-13

Informed use.

The risks to know, the strategies for using these instruments well and the Italian tax treatment. With the final glossary, for every word that gives you pause.

10

Know the risks,
to weigh them.

Every investment carries risk, and ETPs are no exception. Here we line the risks up – from those common to all products to those hidden in the structure – and look at what really happens to your money in the worst scenarios. Knowing them is not about getting scared: it is about choosing with a clear head.

10.1 The risks no ETP can avoid

The first is **market risk**. An ETP tracks its index or its underlying asset: if the market falls, the product falls with it. If you invest €10,000 in a global equity ETF and stock markets lose 20%, your investment will be worth about €8,000. No structure eliminates this risk: it is the price of the return you are hoping for.

The second is **currency risk**. When the underlying is denominated in a currency other than the euro, the final result also depends on the exchange rate. The effect can be surprising: as you saw in [chapter 6](#), the same investment in American shares can return far more, or far less, in euros than it does in dollars, depending on how the exchange rate moves: the wind can blow for you or against you. There are ETPs with currency hedging, which neutralise the exchange rate in return for a small additional cost.

The third is **liquidity risk**. Liquidity is the ease with which an instrument can be bought and sold without moving its price. In large products on the main markets it is rarely a problem; in small or niche ones, the bid-ask spread – the difference between the buying price and the selling price – can widen, and every trade costs more.

The fourth is **early closure**, or delisting: the withdrawal of the product from the exchange. It happens when an ETP gathers too few assets and the issuer decides to shut it down. Your money does not vanish: you can sell on the exchange up to the last trading day, or wait for the liquidation and receive the cash value. The real nuisance is the forced timing: you might have to exit at an unfavourable moment in the market, with possible tax consequences to manage.

10.2 The risks hidden in the structure

Some risks do not depend on the market, but on how the product is built.

Counterparty risk chiefly concerns synthetic ETPs, those that track the index through a swap – a contract under which a bank undertakes to deliver the return of the underlying to the product. If that bank were to fail, the promise would fall through. This is why synthetic ETPs are collateralised: the counterparty deposits a guarantee in highly liquid securities, held in custody by a third party and revalued every day, often with a prudential haircut that creates a safety cushion. European UCITS rules, moreover, cap exposure to any single counterparty at 5-10% of the fund's assets.

A miniature version of the same risk touches physical ETFs that practise **securities lending**: the fund temporarily lends out the shares in its portfolio in exchange for a fee that lowers costs. Here too, the borrower deposits a guarantee.

Issuer risk, by contrast, concerns ETCs and ETNs, which legally are debt securities. If they are collateralised – backed by the physical asset held in a segregated account, or by collateral – the assets remain separate from the issuer's accounts and are protected even if it fails. Non-collateralised ETNs, on the other hand, depend entirely on the soundness of the bank that issues them: if it failed, you would become a mere unsecured creditor. It is the first item to check in the product's key information document.

IN PLAIN WORDS

Collateral works like the deposit on a rented flat. When you rent a flat, the landlord asks for a deposit: if the tenant stops paying, the landlord falls back on it. In the same way, the bank promising the return to a synthetic ETP deposits securities worth as much as the promise, or more, with an independent custodian. If the bank fails, those securities are sold to repay investors.

10.3 Leverage, commodities, cryptocurrencies: tailor-made risks

Leveraged and short ETPs multiply the index's daily return (leverage) or invert it (the short, which gains when the market falls). The critical point, examined in detail in [chapter 6](#), is that the result is calculated day by day: over long periods and choppy markets, compounding pulls the outcome away from what you would expect. A round-number example: if an index loses 10% and then recovers 10%, it closes at 99, that is minus 1%; a 2x leveraged product goes from 100 to 80 and then to 96, that is minus 4%: well over double. There is one consolation: with an ETP you can never lose more than you invested, because there are no loans and no margin accounts.

ETCs on commodities that are hard to store (oil, gas, agricultural products) track the price through futures – forward contracts with an expiry date. To maintain the exposure, the product must periodically sell the expiring contract and buy the next one: this is the rolling you know from [chapter 3](#): if the new contract costs more than the old one (contango), each renewal erodes a little return. For physical precious metals the problem does not exist: the bars sit in vaults.

Cryptocurrency ETPs solve a serious practical problem, the safe custody of digital assets, but they do not change the nature of the underlying: extreme volatility, a short history, rules still evolving. Instruments to be handled, if at all, in small doses.

10.4 The risk map, structure by structure

The table summarises which risks apply to each type of product. "Mitigated" means the risk exists, but is reduced by guarantees or by rules.

TYPE OF RISK	PHYSICAL ETF	SYNTHETIC ETF	ETC	NON-COLLATERALISED ETN
Market	Yes	Yes	Yes	Yes
Currency (if the underlying is in a foreign currency)	Yes	Yes	Yes	Yes
Liquidity	Possible	Possible	Possible	Possible
Counterparty	Only with securities lending (mitigated)	Yes (mitigated by collateral)	Only if synthetic (mitigated)	Yes
Issuer credit	No (segregated assets)	No (segregated assets)	Limited (segregated assets)	Yes
Early closure	Possible	Possible	Possible	Possible

TABLE 8 The risk map, structure by structure

10.5 How a prudent investor lives with risk

Knowing the risks is not about avoiding them all – that would be like never leaving the house for fear of rain – but about dosing them. Three practical rules help.

1. **Diversify.** A portfolio built on broad ETFs spreads market risk across hundreds or thousands of securities and reduces the weight of any single issuer or counterparty.
2. **Respect the horizon.** Every instrument has its own timescale: a global equity ETF thinks in years, a leveraged ETP in days. Using a tactical instrument for a long-term goal is the most frequent mistake, and the most expensive.
3. **Size positions properly.** The riskiest instruments – leverage, single commodities, cryptocurrencies – can at most be small satellites of a solid portfolio, never its core. If a position keeps you awake at

night, it is too large.

And one rule of method: before buying, read the key information document (the KID) and check the structure, the collateral and the issuer. Invested capital always remains at risk: the goal is not to reduce risk to zero, but to know exactly which risks you are accepting, and why.

KEY TAKEAWAYS

- Market risk cannot be eliminated: it is chosen and dosed.
- Counterparty risk exists, but collateral and European rules reduce it considerably.
- Non-collateralised ETNs depend entirely on the soundness of the issuing bank.
- Delisting does not wipe out your money, but it can force you to sell at the wrong moment.
- Leverage, commodities and cryptocurrencies call for short horizons and small doses.

Invested capital is at risk: its value can fall as well as rise.

11

The right index,
in the right place.

Behind every ETP there is an index: understanding how it is built and in which version it is calculated saves you from flawed comparisons and unpleasant surprises. Then comes the next step, which closes the strategic part of the guide: making passive instruments and active choices coexist in a well-ordered portfolio, with the habits that set the patient investor apart from those who chase the market.

11.1 What an index is and who calculates it

A market index is a basket of securities chosen according to precise rules, whose value sums up in a single number the performance of an entire market or a part of it. It works like the basket of prices used to measure inflation: no household buys exactly those goods, but the basket tells a faithful story of how the cost of living is moving.

Indices do not create themselves. They are built and calculated by specialised, independent companies such as MSCI, FTSE Russell, S&P Dow Jones Indices or Bloomberg, following public methodologies: which securities enter the basket, with what weight, how often the composition is updated. For an ETP the index is the **benchmark**, the reference it must replicate as faithfully as possible. Before choosing a product, then, the right question is: which index does it track? And above all: in which version?

11.2 Price return, total return, net total return: use the same yardstick

The same index almost always exists in three versions, and the difference is no small detail.

- **Price return:** measures price movements only. Dividends – the share of profits that companies distribute to shareholders – are ignored.
- **Total return:** assumes that every dividend received is immediately reinvested in the index.
- **Net total return:** reinvests dividends net of withholding taxes, the taxes deducted at source on foreign dividends. It is the most realistic version for a fund, and the one most European ETFs adopt as their official benchmark.

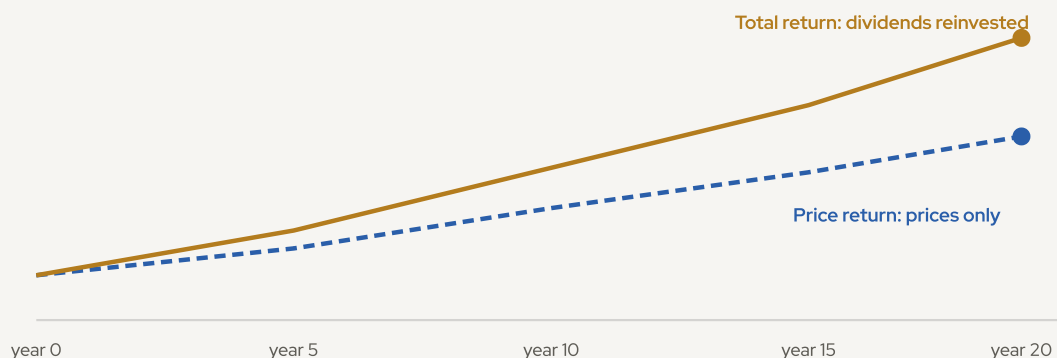
A few numbers give a sense of the scale: the total return version of the MSCI World index returned 2.6% more than the price return version in 2023 alone, and 7.5% more over the three years 2021-2023 (source: Morningstar, Bloomberg, 2024).

Beware of a frequent trap: newspapers and television news almost always quote the price return version. If your ETP tracks a total return version, comparing it with the "evening news" index means comparing apples with oranges. Before judging a performance, always check that product and index are measured with the same yardstick.

IN PLAIN WORDS

Think of an orchard. The price return measures only what the trees are worth. The total return also counts the fruit picked each year and used to plant new trees. The net total return counts the fruit left over after the toll paid at the market gate. Same orchard, three very different measures: before comparing two orchards, make sure you are using the same yardstick.

THE SAME INDEX, MEASURED TWO WAYS – BASE 100



Before comparing an ETF with «its» index, check which version of the index is used: the whole gap lies there.

FIGURE 18 Price return and total return compared

Hypothetical paths for illustration

11.3 How securities are weighted in the basket

The most widespread weighting criterion is market capitalisation: each company's weight depends on its overall stock-market value, that is the share price multiplied by the number of shares. Whoever is worth more, weighs more. It is a simple and cheap method to maintain, and it mirrors the market faithfully.

It has one limit, though: it can concentrate risk. In 2007, on the eve of the financial crisis, financial-sector stocks had come to weigh almost a quarter of the main index of the London Stock Exchange; over the following two years their weight halved and the index lost nearly half its value. Those who

thought they owned "the whole market" were in fact heavily exposed to a single sector. This is why many modern methodologies set caps on the weight of individual companies or sectors.

Alternatives also exist. **Equal weight** indices assign every security the same share. **Factor** indices – those behind the "smart beta" ETFs met in [chapter 2](#) – select and weight securities according to measurable characteristics studied by academic research: low prices relative to earnings, solid balance sheets, positive recent momentum, company size. They aim to beat the market with transparent, systematic rules, in exchange for costs a little higher than pure passive.

11.4 Commodities: three versions of the same barrel

Commodities require one extra step, which you know from [chapter 3](#): ETPs do not stockpile barrels or hundredweights of wheat, but use futures contracts – agreements that fix today the price of a future transaction. Three index versions follow from this:

- **spot** index: a snapshot of the commodity's current price; it is the one quoted by the media, but it is not directly investable;
- **excess return** index: adds to the price movement the roll yield, the gain or loss generated by the periodic renewal of the futures contracts;
- **total return** index: also adds the collateral yield, the interest earned on the cash not yet committed to the contracts.

The moral: the "evening news" oil price can rise while your ETP follows a different path. It is not a flaw in the product: it is simply tracking a different index from the one you are watching.

11.5 Active and passive can coexist: costs and core-satellite

Passive management and active management are often portrayed as rivals. In reality they can work together, provided you start from the numbers. And the first number is costs. Imagine investing €10,000 in an active fund with annual fees of 2% and in a passive ETP with fees of 0.5%, assuming for simplicity a zero return for both. Here is what remains of the capital (hypothetical example: only the effect of costs counts):

HORIZON	ACTIVE FUND (2% A YEAR)	PASSIVE ETP (0.5% A YEAR)
1 year	€9,800	€9,950
5 years	€9,039	€9,752
10 years	€8,171	€9,511
20 years	€6,676	€9,046

TABLE 9 Active and passive can coexist: costs and core-satellite

Over twenty years, an extra one and a half points of fees costs almost €2,400. And that is money active management has to claw back through performance: in the 10-15 years to the end of 2023 only 13% of US active funds beat the S&P 500 index, and in the 10 years to the end of 2023 only 8% of European active funds beat the S&P Europe 350 index (source: S&P Dow Jones Indices, SPIVA score-cards, year-end 2023).

This does not make every active choice pointless: the **core-satellite** strategy gives it its proper place. The core is the largest part of the portfolio: diversified, low-cost equity and bond ETFs, held for years. The *satellites* are smaller, targeted positions used to express a conviction or seek extra return: thematic or single-country ETFs, commodity ETPs, actively managed funds, individual stocks, for the most experienced even cryptocurrencies. The core keeps overall costs and volatility low; the satellites provide flexibility: if one disappoints, it can be replaced without dismantling the whole portfolio.

IN PLAIN WORDS

A core-satellite portfolio works like a well-made wardrobe. A few basic garments, durable and good for everything, are the core: you wear them every day and keep them for years. Seasonal accessories are the satellites: they add character, and if one goes out of fashion you replace it without redoing the wardrobe. And nobody would spend the entire budget on accessories.

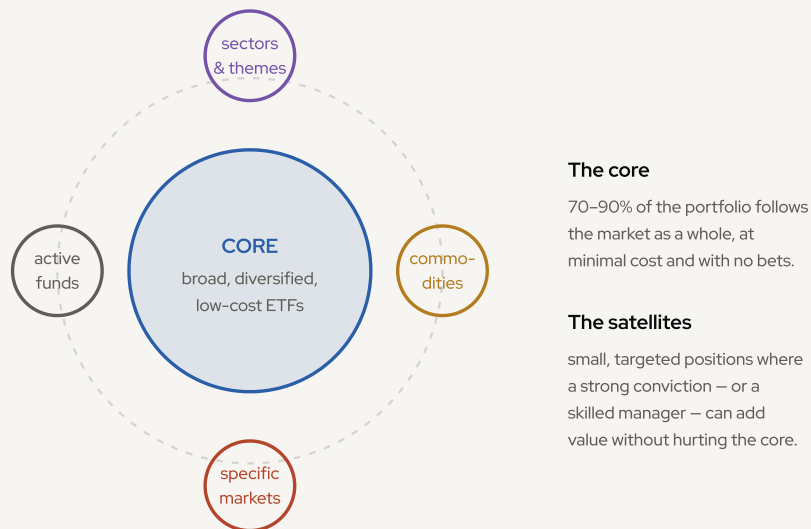


FIGURE 19 The core-satellite strategy

Illustrative diagram

11.6 The good habits of the investor

We close the strategic part of the guide with four habits worth more than many forecasts.

1. **Start from the time horizon.** Ask yourself when you will need this money. Money you might need in two years should not be invested like money that will stay put for twenty.
2. **Respect your risk profile.** The more volatile satellites make sense only if their swings do not keep you awake at night. A portfolio that is perfect on paper, but abandoned at the first downturn, is a bad portfolio.
3. **Consider a regular investment plan.** Paying in a fixed amount at regular intervals (in Italy known as a PAC, piano di accumulo) spreads purchases over time, averages your entry prices and removes the most paralyzing question of all: "is this the right moment to get in?".
4. **Do not chase market timing,** the attempt to guess the best moments to buy and sell. For those aiming at long-term growth, a diversified allocation maintained with discipline tends to deliver better results than constantly moving in and out of the market.

One last thing, speaking as an adviser: no strategy eliminates risk, and invested capital can always fall in value. But the best strategy is not the most brilliant one: it is the one you will actually manage to stick to.

KEY TAKEAWAYS

- Every index exists in three versions: price, total and net total return. Compare your ETP with the right one.
- The media almost always quote the price return: do not use it to judge a total return product.
- Costs compound: in the example, an extra 1.5 points of fees erodes almost €2,400 out of €10,000 over twenty years.
- Core-satellite: a diversified low-cost core, small and targeted satellites.
- A clear horizon, sustainable risk and regular contributions beat the hunt for the perfect moment.

Invested capital is at risk: its value can fall as well as rise.

12

Settling up
with the taxman.

Taxes do not decide whether an investment is a good one, but they do decide how much of it ends up in your pocket. The Italian tax system treats ETFs, ETCs and ETNs in surprisingly different ways: here you will find the rates, the famous "asymmetry" that catches almost every investor off guard, and a few practical rules for not paying more than you owe.

12.1 Two separate drawers: redditi di capitale and redditi diversi

To understand how ETPs are taxed you need just one underlying idea: the Italian tax system divides financial gains into two categories, as if it kept two separate drawers. The distinction dates back to the 1997 reform (D.Lgs. 461/1997) and is still the key to everything.

The first drawer holds **redditi di capitale** (capital income, art. 44 of the TUIR, the Testo unico delle imposte sui redditi – Italy's consolidated income-tax code): the "certain" fruits of an investment, such as the interest on a bond, the dividends on a share or the income paid out by a fund. The second holds **redditi diversi** (miscellaneous income, art. 67 of the TUIR): the gains and losses that arise from buying and selling, that is, capital gains (you sell for more than you paid) and capital losses (you sell for less). From 1 January 2027 the same rules move, unchanged in substance, into the new consolidated income-tax code (D.Lgs. 117/2026), which changes only the numbering: capital income from article 46 onwards, miscellaneous income from article 76 onwards.

Why does this matter? Because the law allows gains and losses to be offset *only within the redditi diversi drawer*. A gain that lands in the capital-income drawer can never be reduced by a loss. Keep this rule in mind: in a moment you will see why, for ETFs, it is a very concrete problem.

12.2 Harmonised ETFs: 26% (with a discount on government bonds)

Harmonised ETFs are those that comply with the European UCITS rules, meaning they are authorised and supervised in the European Union: in practice, all the ETFs listed on the Milan exchange. For them the rule is simple: their income counts as reddito di capitale and pays a substitute tax (imposta sostitutiva) of **26%** – so called because it replaces IRPEF, the ordinary income tax: your intermediary withholds it and the account with the taxman is settled there – the standard rate in force since July 2014 (D.L. 66/2014).

There is, however, an important discount. The portion of the gain that comes from **Italian government bonds** and from equivalent securities, or from bonds issued by "white list" countries (those that exchange tax information with Italy: essentially all the main advanced economies), is taxed at **12.5%**. You do not have to calculate anything yourself: the ETF's issuer periodically certifies the average percentage of government bonds in the portfolio and your bank applies the two rates in proportion. If a bond ETF holds half its assets in government securities, roughly half the gain pays 12.5% and the other half 26%.

And dividends? If the ETF is a **distributing** one, every payout you receive is taxed immediately at 26% (or, pro rata, at 12.5%). If it is an **accumulating** one, income is reinvested inside the fund and you pay nothing until you sell: taxation is postponed until you realise the gain. This is what tax deferral means: the money you do not hand over to the taxman today stays invested and keeps working for you.

12.3 The ETF asymmetry: the trap you need to know about

Here is the peculiarly Italian quirk that surprises almost every investor. For ETFs, **capital gains** are redditi di capitale, but **capital losses** are redditi diversi (artt. 44 and 67 of the TUIR, as amended by D.Lgs. 44/2014 and clarified by circular 21/E of 2014 from the Agenzia delle Entrate, the Italian revenue agency). Gains and losses on the very same instrument end up in two different drawers. The practical consequence: **a loss on one ETF never reduces the tax on a gain from another ETF**. If in a given year you sell one ETF at a €5,000 gain and another at a €5,000 loss, you are not "even" in the taxman's eyes: you still pay 26% on the full €5,000 gain.

The loss need not go to waste, though: it enters the so-called **zainetto fiscale** — the tax-loss "back-pack", a credit you can use to reduce the tax on future gains, provided they qualify as redditi diversi. In practice, ETF losses can be offset against capital gains on **shares, bonds, ETCs, ETNs and certificates** (certificates being instruments issued by banks whose value tracks an underlying asset). You have until the **fourth year after** the year of the loss: then the credit expires and is lost for good (D.Lgs. 461/1997).

IN PLAIN WORDS

Picture two separate cash ledgers: one for "income from fruits" and one for "trades". The taxman lets you square gains against losses only within the second ledger. ETFs have the misfortune of recording their gains in the first ledger and their losses in the second: which is why the two never meet. A loss becomes a discount voucher with a four-year expiry, spendable only on gains from the second ledger: shares, bonds, ETCs, ETNs and certificates.

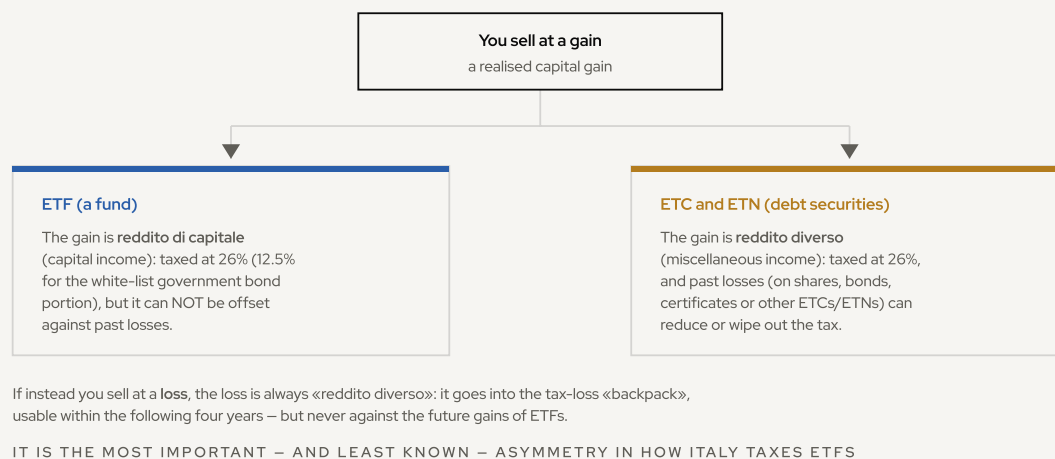


FIGURE 20 The tax journey of a gain

Rules as at September 2026

12.4 ETCs, ETNs and non-harmonised ETFs: two opposite worlds

ETCs and ETNs (the instruments tracking commodities and other underlyings that you met in the earlier chapters) follow a different and, in some respects, simpler logic. Since they are debt securities rather than funds, their gains and their losses are *both* redditi diversi, taxed at 26%. Everything sits in the same drawer: full offsetting. If you carry past losses in your backpack – say, from old shares sold at a loss – a gain on an ETC can absorb them and reduce the tax. It is a technical detail that, for anyone with losses about to expire, can be worth hundreds of euros.

At the opposite extreme sit **non-harmonised ETFs**: those listed outside the European Union (typically in the United States) and not compliant with the UCITS rules. Their income does not enjoy the 26% substitute tax: it is added to your overall income and pays IRPEF at the **progressive rates from 23% to 43%**, to be reported in your tax return even if you use an Italian bank. For most taxpayers this means more tax and more paperwork: it is one of the reasons why, for the ordinary investor, harmonised instruments listed in Europe are generally the more straightforward choice.

12.5 Stamp duty, regime amministrato and regime dichiarativo

Beyond the taxes on gains there is a fixed cost that is often forgotten: the **imposta di bollo** (stamp duty) on your securities account, equal to **0.2% a year** of the market value of your instruments, which the bank usually debits at the end of each reporting period. On €50,000 invested that is €100 a year, gains or losses regardless. Anyone using a foreign intermediary does not pay the bollo but a twin tax, IVAFE (the levy on financial assets held abroad), also at 0.2% a year (raised to 0.4%, from 2024, only for financial products held in privileged-tax countries, the so-called black list: brokers in the EU, the United States and the other cooperative countries stay at 0.2%), which must however be paid through the tax return.

Who actually settles the account with the taxman? It depends on the regime you choose. Under the **regime amministrato** (the administered regime, the standard one with Italian banks and intermediaries), the intermediary does everything as *sostituto d'imposta* (withholding agent): it calculates the taxes, withholds and pays them, and manages the loss backpack. You receive amounts already net of tax and nothing appears in your return. Under the **regime dichiarativo** (the self-assessment regime, typical of those who use foreign intermediaries), it is you – usually with an accountant – who declare everything: redditi diversi in quadro RT, redditi di capitale in quadro RM, plus quadro RW (the section of the return for monitoring assets held abroad). For a non-expert investor, the regime amministrato is almost always the more peaceful path.

12.6 A worked example (and the changes on the horizon)

Let us put it all together. Anna carries €3,000 of losses in her tax backpack, from shares sold two years ago. This year she sells an investment with a €10,000 capital gain.

- **Case 1: the gain comes from an ETF.** It is reddito di capitale: the loss cannot be used. Anna pays 26% on the full €10,000, that is, **€2,600**. The €3,000 stays in the backpack, waiting (and at risk of expiring).
- **Case 2: the gain comes from an ETC.** It is reddito diverso: the loss can be offset. Anna pays 26% on €7,000 (10,000 – 3,000), that is, **€1,820**. Saving: €780.

Same gain, same rate, a €780 difference: this is why knowing the tax categories is not pedantry.

As for what is new: between 2024 and September 2026 the framework for ETPs has remained **essentially unchanged** (the 26% and 12.5% rates, asymmetry included). The enabling law for the tax reform (L. 111/2023, extended by L. 120/2025) envisaged merging redditi di capitale and redditi diversi into a single category, with full offsetting of gains and losses; the deadline for exercising it expired on 29 August 2026 without that decree being adopted, and the decrees of August 2026 (D.Lgs. 148/2026) touched financial income only on marginal points that do not concern ETPs. The ETF asymmetry therefore remains in force: under current legislation there is no longer a deadline for enacting that reform, and changing it will take a new law. One more reason to check the rules at the time of every transaction.

One final, necessary caveat. Tax law changes over time and every personal situation has its own particulars: what you have read here is general guidance, not tax advice. Significant decisions call for a personalised assessment with a professional. And, as always, remember that invested capital is at risk: taxes are paid only on gains, but gains are never guaranteed.

KEY TAKEAWAYS

- Financial gains fall into two separate categories – redditi di capitale and redditi diversi – which cannot be offset against each other.
- Harmonised ETFs pay 26% (12.5% on the white-list government-bond portion), but a loss on one ETF never reduces the tax on a gain from another ETF.
- Capital losses stay in the zainetto fiscale for four years and can be offset only against shares, bonds, ETCs, ETNs and certificates.
- For ETCs and ETNs, gains and losses are both redditi diversi: full offsetting.
- Non-harmonised ETFs pay progressive IRPEF of up to 43%: for the ordinary investor, UCITS instruments are the better choice.

Invested capital is at risk: its value can fall as well as rise.

13

The words
of ETPs.

A glossary is not read from the first entry to the last: it is consulted. Here you will find, in the alphabetical order of the original Italian terms, the words you will meet most often in disclosure documents, investment platforms and financial articles, explained in a few lines and without jargon. Keep it within reach: it will come in handy whenever a word slows you down, in this guide and beyond.

13.1 A–B

Asset allocation – How your money is divided among the different types of investment (shares, bonds, commodities, cash) according to your goals, time horizon and risk tolerance.

Asset class – A category of investments with similar characteristics: shares, bonds, commodities, currencies, property. Each class responds in its own way to the different phases of the market.

AUM (assets under management) – The total value of the money invested in a fund or an ETP. A large asset base usually signals an established product.

Share (azione) – A security representing a small slice of ownership in a company, entitling the holder to a share of its profits, often paid out as dividends.

Benchmark – The reference index against which an investment is measured. For a passive ETP it is the yardstick: the product aims to track it as faithfully as possible.

Bid-ask spread (denaro/lettera) – The difference between the price at which you can sell (the bid, denaro) and the price at which you can buy (the ask, lettera). The tighter it is, the less it costs to trade.

Broker – The intermediary, nowadays often an online platform, that executes your buy and sell orders on the exchange in return for a commission.

13.2 C–F

Collateral – An asset deposited as security. In synthetic ETPs it protects investors: if the counterparty fails to pay what it promised, the collateral is used to recover the losses.

Contango and backwardation – The two shapes of the futures curve. In contango, contracts with distant expiries cost more than the current price and rolling them erodes returns; in backwardation the opposite happens.

Creation and redemption (creazione e riscatto) – The mechanism by which ETP shares come into being and are cancelled. It lets supply adjust to demand, so the market price stays close to the real value.

Derivative – A financial contract whose value depends on the performance of another asset, called the underlying. The most common are futures, options and swaps.

Diversification – Spreading an investment across many securities, sectors and countries to reduce risk: the losses on one asset can be offset by the gains on another.

ETC (exchange-traded commodity) – An ETP that tracks the price of one or more commodities without having to take physical delivery of them. Legally it is a collateralised debt security, not a fund.

ETF (exchange-traded fund) – An investment fund listed on an exchange that replicates an index or a strategy. In Europe it normally follows the UCITS rules, which protect the investor.

ETN (exchange-traded note) – A listed debt security that promises the return of an index or an asset. With no collateral, the buyer is also exposed to the issuer's soundness.

ETP (exchange-traded product) – The umbrella term covering ETFs, ETCs and ETNs: all of them investment instruments traded on an exchange like an ordinary share.

Future – A standardised contract in which two parties commit to exchanging an asset at a price and on a date fixed in advance. Widely used for commodities.

IN PLAIN WORDS

Creation and redemption work like the tokens at a merry-go-round: when more people arrive, the operator puts new tokens into circulation; when the queue thins out, he withdraws them. That way a token is always worth exactly one ride, no more and no less. In the same way, the shares of an ETP are created or cancelled every day, and their market price stays anchored to the value of what they contain.

13.3 H-L

Hedging (copertura) – Reducing risk by taking a position opposite to the one you hold. It works like insurance: the loss on one investment is cushioned by the gain on the other.

Imposta di bollo – The annual Italian stamp duty on financial instruments held in custody, equal to 0.2% of their value, ETPs included (source: Italian tax law currently in force).

iNAV (indicative net asset value) – The indicative value of the assets per share, recalculated continuously during trading hours. It lets you check whether the market price is in line with the real value.

Index – A basket of securities built to precise rules in order to measure the performance of a market – for example, a country's largest listed companies.

KID (formerly KIID) – The key information document: a few standardised pages summarising a product's nature, costs and risks, mandatory for every ETP sold to retail investors in Europe. Since 2023 it has replaced the old KIID of funds. Always to be read before investing.

Leverage (leva) – A mechanism that amplifies gains and losses. A 2x leveraged ETP aims to double the daily return of its index: an instrument for very short horizons and experienced investors.

Liquidity – How easily an asset can be bought or sold without moving its price. Cash is extremely liquid; a property is not. More liquidity, tighter spreads.

13.4 M–O

Market maker – A professional operator that continuously quotes buying and selling prices, ensuring there is always a counterparty for anyone who wants to trade.

Primary market – The restricted circuit in which authorised participants create and redeem ETP shares directly with the issuer. Private investors have no access to it.

Secondary market – The exchange proper, where shares change hands between investors. This is where you buy and sell your ETPs through your broker.

Minusvalenza and zainetto fiscale – The capital loss (minusvalenza) realised by selling below your purchase price. It goes into the "zainetto fiscale", the tax-loss backpack: a credit you can use within four years to offset future redditi diversi (miscellaneous income).

NAV (net asset value) – The official value of a fund's assets: everything the fund owns, minus its debts, divided by the number of shares. It is normally calculated once a day.

Bond (obbligazione) – A loan to a government or a company: the buyer collects periodic interest, the coupons, and receives the capital back at maturity.

Market order (ordine di mercato) – The instruction to buy or sell immediately, at the best price available at that moment. It is fast, but gives no control over the final price.

Limit order (ordine limite) – The instruction to trade only at a price equal to or better than the one you set. It avoids nasty surprises, especially on less liquid securities.

13.5 P–R

Authorised participant – A large intermediary, often a bank, that creates and redeems ETP shares with the issuer, keeping the market price aligned with the value of the assets.

Prospectus – The legal document, approved by the supervisory authority, that describes in detail the characteristics, workings and risks of a listed product.

Basis point – One hundredth of a percentage point: 100 basis points make 1%. Used for fees and rates: a TER of 20 basis points is 0.20%.

Redditi di capitale – In Italian tax law, the "certain" gains (capital income): dividends, coupons and the capital gains of funds, ETFs included. They cannot be offset against past losses.

Redditi diversi – In Italian tax law, the "uncertain" gains (miscellaneous income), such as capital gains on shares, ETCs and ETNs. They can be offset against the losses in the zainetto fiscale.

Physical replication – The method by which an ETP actually buys the securities in the index: all of them (full replication) or a representative sample (sampling).

Synthetic replication – The method by which an ETP obtains the index's return through a swap with a bank, without holding the securities. It carries counterparty risk, mitigated by collateral.

Counterparty risk – The risk that whoever owes a payment – for example, the provider of a swap – fails to honour it. It is reduced through guarantees and collateral.

Currency risk – The risk that exchange-rate swings erode your result: an investment in dollars can gain in local currency and yet lose, once converted, in euros.

13.6 S–V

Swap – A derivative contract in which two parties exchange the returns of two different investments. It is the engine of synthetic replication in ETPs.

TER (total expense ratio) – The indicator of annual management costs, as a percentage of capital. On €10,000 invested, a TER of 0.20% costs €20 a year.

Tracking difference – The difference between the ETP's return and its index's over a given period. It measures how much more or less the product delivered.

Tracking error – The variability of the tracking difference over time. It measures how steady and consistent the replication is: the lower it is, the more faithful the product to its index.

UCITS – The European rulebook for funds sold to the public, with strict rules on diversification, transparency and custody. The acronym signals a high level of investor protection.

Volatility – A measure of how much an asset's price swings over time. High volatility means large, rapid moves – and therefore more short-term uncertainty.

IN PLAIN WORDS

Picture a dog on a lead out for a walk: the owner is the index, the dog is the ETP. The tracking difference tells you how far from the owner the dog ends up at the end of the walk; the tracking error tells you how much it zigzagged along the way. A good ETP walks to heel and zigzags little.

KEY TAKEAWAYS

- There is no need to learn the terms by heart: keep the glossary within reach and consult it whenever a word is unclear.
- Before buying a product, check that you can explain the key terms of its disclosure document in your own words.
- If a definition is not enough to clear things up, that is a useful signal: dig deeper or ask a professional before investing.

The instruments are **only the beginning.**

This guide ends here; the decisions do not. ETPs are building blocks – simple, inexpensive, transparent – but a brick is not a house: it becomes something only within a plan, with a horizon, with proportions, with a reason behind every choice.

If reading it has raised questions about your own situation – how much risk it makes sense to take, how to weight the instruments, what the tax rules say in your specific case – that is the sign that the most useful part of the work begins now.

A confidential conversation, with no obligation, is the simplest way to find out together. The contact details are on the last page.

Massimiliano Silla

To read, before deciding.

This guide serves an exclusively educational and informational purpose. It does not constitute investment advice, a personalised recommendation, a solicitation of public savings or an offer of financial instruments. Investment decisions should be taken only after an assessment of one's personal situation – objectives, time horizon, capacity to bear losses – with the assistance of a professional where necessary.

Invested capital is at risk. The value of any investment can fall as well as rise; past performance is not indicative of future results. Leveraged, short and cryptocurrency instruments can produce rapid, substantial losses and are not suitable for most savers.

The data and rules cited are updated to September 2026, unless otherwise indicated. Legislation – tax legislation in particular – changes over time: before any decision it is worth checking that the framework described here is still current. Market data come from public sources believed to be reliable (Morningstar, Bloomberg, ETFGI, PwC, London Stock Exchange, Borsa Italiana), which are nevertheless not guaranteed.

No specific issuer or product is recommended in this guide. The numerical examples are hypothetical and serve only to illustrate the mechanisms described.

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CONTACTS

Let's talk about your wealth.

Rome	Viale dell'Arte 25 00144 Italy	T +39 06 9670 1880
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Milan	Via San Raffaele 1 20121 Italy	T +39 02 3035 6801
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Turin	Corso Valdocco 2 10128 Italy	T +39 011 089 1164
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Geneva	Place de la Fusterie 12 1204 Switzerland	Representative office By appointment
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EMAIL

info@massimilianosilla.com

WEBSITE

massimilianosilla.com

LINKEDIN

in/massimiliano-silla

A first confidential conversation, free of any obligation,
to understand where to begin.

