

Onboarding: Finance Basics for the Cross-Faculty Curriculum

Preparatory Self-Study Material

Cross-Faculty Curriculum for Sustainable Finance

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Learning Outcomes

By the end of this onboarding, you can:

- understand and define core concepts used in personal investing, including return, risk, diversification, liquidity, time horizon, inflation, interest rates, and compounding;
- understand the main asset classes relevant for retail investors and distinguish equities, bonds, and collective investment vehicles such as mutual funds and ETFs;
- understand the difference between primary and secondary markets and describe their basic functions;
- understand the role of costs in investing and describe common cost components such as ongoing charges, transaction costs, and bid–ask spreads;
- learn how to read key elements of simple product documents, including risk indicators, fee disclosure, and basic portfolio information.

Description

This onboarding helps you build a shared vocabulary and a minimum set of financial concepts that will be used throughout the curriculum. It is designed as preparatory self-study material for a cross-faculty cohort. You will work through the basic logic of financial markets, the main investment instruments encountered by retail investors, and the cost components that often shape real-world outcomes more than headline performance numbers. You will also practise reading simplified product documents, with attention to risk indicators, fees, and holdings, so you can follow Module 1 without getting stuck on terminology.

Running Example (Overview)

Throughout this onboarding, a single simplified situation is used to illustrate how the different finance concepts connect in practice. The example refers to you as a student who saves a fixed amount each month from a part-time job in order to build savings over several years. You do not follow a short-term trading strategy, but invest gradually while accepting that returns are uncertain, costs apply continuously, and access to the money may be needed at different points in time.

How to Use This Onboarding

Read the text once from start to finish and work through the short, italicised practice paragraphs. They form one continuous mini example that is reused across all concepts. The goal is not to memorise definitions, but to make each concept *usable* for understanding Module 1 and the lectures that follow.¹

¹If you want to go further, pay attention to the optional enrichment footnotes. They give extra context without changing what you need for the course.

1 Basic Concepts

1.1 Return

Return describes the gain or loss of an investment relative to the capital invested over a specific period. In personal investing, returns typically come from two sources.

First, returns can arise from *price changes*. If you sell an investment at a higher price than you paid, you realise a *capital gain*; selling at a lower price results in a *capital loss*. Many investments, especially equities and equity funds, generate a large share of their returns through such price movements rather than through regular cash payments.

Second, returns can come from *cash flows*, meaning payments you receive while holding an investment rather than from selling it. For equities, these cash flows take the form of dividends (see Section 3.2.1); for bonds, they consist of coupon payments (see Section 3.3.3). Both price changes and cash flows contribute to the total return of an investment.

Returns can be expressed in currency terms (for example, EUR gained or lost) or as a percentage (for example, +5% over one year). A key practical distinction is between *nominal return* (what you observe in money terms) and *real return* (what remains after adjusting for inflation). Over short periods, returns can be noisy and influenced by market sentiment, such as investors' reactions to news. Over longer horizons, returns tend to reflect underlying economic growth, interest rates, and compensation for risk.²

You invest EUR 1,000 today and plan to add EUR 100 every month into a diversified ETF portfolio. After one year, the account value is EUR 2,260. You have contributed EUR 2,200 (EUR 1,000 + 12 × EUR 100), so a simplified nominal return is EUR 60, or about 2.7% on contributed capital over that year. This calculation is simplified: the exact return depends on the timing of the monthly deposits, because later deposits are invested for fewer months.

Self-check

1. Name two sources of return for a retail investor.
2. What is the difference between nominal and real return?
3. Why can return calculations depend on the timing of contributions?

1.2 Risk and Volatility

Risk refers to uncertainty about an investment's future return: outcomes can deviate from what you expect, including the possibility of losses. For retail investing, it is helpful to think of risk in three layers. First, *downside risk*: the chance and size of losses when markets move against you. Second, *range risk*: how widely outcomes can vary even if the average return is positive. Third, *goal risk*: the risk that you will not reach a concrete objective because returns were insufficient or losses occurred at the wrong time.

A useful beginner distinction: *risk tolerance* is what you can emotionally live with; *risk capacity* is what you can financially afford given your time horizon and liquidity needs; *risk perception*

²In more advanced settings, the timing issue in contribution-based examples is handled via money-weighted returns (IRR) versus time-weighted returns. For onboarding, the simplified intuition is sufficient.

is how risky something *feels* (often influenced by headlines). Good investing decisions require aligning capacity and tolerance.

Volatility is commonly used as a practical proxy for risk: it measures how strongly returns fluctuate over time. High volatility means the path of returns is bumpy, which matters because you are not only exposed to the final outcome but also to *timing*. Volatility is therefore not just a statistic; it connects to behaviour (panic selling), liquidity needs, and the feasibility of staying invested. Volatility is a measure of variability, not a full description of risk: investments can have low volatility but still be risky (e.g., illiquid or highly leveraged products).

In your portfolio, equities are expected to deliver higher long-run returns than bonds, but the value can drop noticeably in a bad month. If you check the account daily, large short-term swings may feel alarming even when your long-run plan is sensible. The practical risk is not only “losing money,” but also selling at the wrong time because the fluctuations are uncomfortable.

Self-check

1. Give one example of downside risk and one example of goal risk.
2. Why can volatility matter even if you plan to invest for the long run?

1.3 Diversification

Diversification reduces portfolio risk by spreading investments across assets that do not move perfectly together. The core idea is simple: when one investment performs poorly, another may perform better, smoothing the overall outcome. Diversification is most effective against *idiosyncratic risk* (asset-specific risk), such as a single company scandal or a sector-specific shock. *Systematic risk* refers to market-wide risk that affects many assets at the same time.

A portfolio is simply the set of investments you hold together. Many risks and outcomes only make sense at the portfolio level, not for a single asset. In portfolio theory, diversification benefits depend on correlations: lower correlation between assets generally improves diversification.

In practice, diversification can be achieved across asset classes, regions, sectors, and strategies. For small investors, collective vehicles such as funds and ETFs are often the most straightforward way to diversify because a single product can hold hundreds or thousands of securities.

Instead of buying one company’s stock, you choose a broad equity ETF that holds many firms across countries and sectors, and combine it with a bond fund. A bad outcome for one firm has little effect on your overall portfolio, and the bond allocation can partially stabilise the account value when equity markets fall.

Self-check

1. What type of risk does diversification reduce most effectively?
2. Why does diversification not eliminate all risk?

1.4 Liquidity

Liquidity describes how quickly an asset can be bought or sold without significantly affecting its price. Highly liquid assets trade frequently with many buyers and sellers; less liquid assets trade infrequently and can require concessions in price to execute a trade. For retail investing, liquidity matters because it influences how easily you can access cash when needed and your implicit trading costs.³

Liquidity also has a behavioural dimension: if you hold illiquid assets but later face an unexpected expense, you might be forced to sell at an unfavourable moment. This is why liquidity is closely linked to time horizon and emergency planning.

You keep a small cash buffer for unexpected expenses and invest the rest in liquid ETFs that can be sold quickly if needed. If you instead held a very illiquid investment, the sale might take longer or require accepting a worse price at the exact moment you need cash.

Self-check

1. Name one reason why liquidity affects trading costs.
2. Why is a cash buffer relevant in this onboarding example?

1.5 Time Horizon

Time horizon is the period you plan to hold an investment before needing the money. Longer horizons typically allow you to tolerate more short-term volatility because there is more time for markets to recover and for compounding to work. Short horizons increase the importance of capital preservation and liquidity, because a loss close to the “money-needed” date can permanently reduce the ability to reach the goal.⁴

Time horizon is not only about the calendar; it is also about flexibility. If a goal date is strict, the effective horizon is shorter and risk capacity is lower. If the goal is flexible, the horizon is longer and short-term swings may be less harmful.

You have two goals: building a small reserve for next summer (short horizon) and saving for the long term (long horizon). It is reasonable to invest the long-horizon savings more aggressively, while keeping the short-horizon money in safer, more liquid instruments.

Self-check

1. Why does a shorter horizon reduce the amount of risk you can realistically take?
2. What is the difference between a strict and a flexible goal date?

1.6 Inflation

Inflation reduces purchasing power over time: when prices rise, the same amount of money buys fewer goods and services. For investing, inflation matters because the relevant outcome is the

³Market liquidity and funding liquidity are often discussed separately in finance because they can interact in crises.

⁴This is why lifecycle investing often shifts toward lower-risk assets as a goal date approaches.

real return, not the nominal return. A portfolio can grow in currency terms while still failing to improve living standards if inflation is high. Inflation also affects investment decisions indirectly through interest rates and through changes in company costs and consumer demand.⁵

A practical way to internalise inflation is to translate money outcomes into “future purchasing power.” This shifts attention from headline account values to what the money can actually do when you need it.

You earn about 2.7% nominal return in the year, but inflation is 2%. The real gain in purchasing power is therefore small. If inflation were higher than your portfolio return, you would feel richer in account value, but not in what the money can buy.

Self-check

1. Why is real return often more relevant than nominal return?
2. Give one way inflation can affect investments indirectly.

1.7 Interest Rates and Discounting

Interest rates influence the pricing of many assets because they shape the return available on safer alternatives and how future cash flows are discounted into today’s prices. Discounting means translating future cash flows into a value today: the higher the interest rate, the less a future payment is worth in today’s terms. When interest rates rise, existing bond prices typically fall, and equity valuations can also be affected through discounting and financing costs.⁶⁷

For retail investors, interest rates show up in multiple everyday places: mortgage rates, loan costs, savings rates, and the relative attractiveness of bonds versus equities. Understanding that “rates move prices” is enough for this onboarding.

If interest rates rise, your bond fund can temporarily lose value because its existing bonds become less attractive relative to newly issued bonds. At the same time, higher rates may increase returns on cash and newly issued bonds, changing what you consider a reasonable portfolio mix.

Self-check

1. What typically happens to existing bond prices when interest rates rise?
2. Name one channel through which higher rates can affect equity valuations.

1.8 Compounding

Compounding is the process by which returns generate additional returns over time (earning “returns on returns”). It is one of the most important drivers of long-run wealth accumulation,

⁵A simple rule of thumb is: $\text{real return} \approx \text{nominal return} - \text{inflation}$.

⁶The basic bond intuition is: when yields rise, existing fixed coupons are less attractive, so prices adjust downward.

⁷Rule of thumb: the longer the bond maturity or duration, the more its price tends to move when interest rates change.

especially when contributions are made regularly and the time horizon is long. Compounding applies both positively and negatively, because fees can also reduce the base every year.⁸

Two practical levers determine compounding outcomes for retail investors: time and net return.

Your plan of investing EUR 100 per month matters not only because it adds money, but because each contribution has time to compound. Missing several years early in the plan can reduce the end result more than you intuitively expect.

Self-check

1. What is the difference between compounding and simple growth?
2. Why do fees interact strongly with compounding?

2 Fees, Costs, and Trading Frictions

2.1 Why Costs Matter

Fees and costs include explicit charges (such as management fees and brokerage fees) and implicit trading costs (such as bid–ask spreads). They reduce net returns and accumulate over time because they are repeated across many periods. Costs matter especially for long-term investors because they apply regardless of whether markets perform well or poorly: they are one of the few things you can influence directly.⁹

A useful way to think about costs is to separate them into three categories: ongoing charges, transaction costs, and bid–ask spreads. The key practical insight is that costs show up inside the product and when you trade it.

You compare two similar ETFs. One charges 0.20% per year and the other 0.60%. The difference looks small in a single year, but it repeats every year and reduces compounding. Over a long horizon, the higher-cost ETF can lead to materially lower final savings even if gross market returns are identical.

Self-check

1. Name one explicit cost and one implicit cost in investing.
2. Why do small annual fees matter more for long-horizon investors than for short-horizon investors?
3. In which two places do costs typically show up for a retail investor?

2.2 Ongoing Charges

Ongoing charges include management and administrative fees charged continuously, usually expressed as a yearly percentage of assets. These charges reduce returns each year, regardless of

⁸Even small annual fee differences can produce large end-value differences over decades because the fee is taken every year from the growing base.

⁹In fund disclosures, ongoing charges may appear under terms like “TER” or “OCF” depending on jurisdiction and document style.

market performance. Because they reduce the investment base, they also reduce compounding over long horizons.¹⁰

In simple product documents, ongoing charges are often presented in a “costs over time” illustration. This can help translate a percentage into money outcomes and make it easier to compare products that look similar on the surface.

Even if you do not trade at all, the ETF provider still charges ongoing fees. Your account value is therefore slightly lower each year than it would be in a hypothetical “zero fee” world, and the gap grows over time because compounding works on a smaller base.

Self-check

1. What are ongoing charges, and how are they typically charged in a fund/ETF?
2. Why might you not see an explicit bill for ongoing charges in your account?

2.3 Transaction Costs

Transaction costs arise when buying or selling investments. They can be explicit (brokerage fees, exchange fees, or taxes where applicable) and they matter more when trading frequently. Even when explicit commissions are low, repeated trading can reduce net outcomes because you repeatedly “pay to move” between positions. A common implicit component is *slippage*.¹¹

For self-study, the behavioural lesson is important: frequent trading is not only a risk-taking choice; it is also a cost-generating choice.

If you buy EUR 100 of ETFs every month, small fixed trading fees can become a large percentage of each contribution. You therefore learn to consider cost-efficient ways to implement regular investing.

Self-check

1. Give two examples of transaction costs.
2. What is slippage in simple terms?
3. Why can frequent trading reduce net outcomes even if commissions are low?

2.4 Bid–Ask Spreads

The bid–ask spread is the difference between the price at which you can sell (bid) and buy (ask). It is an implicit trading cost and tends to be larger for less liquid assets. Even if a broker charges zero commission, you effectively pay the spread when entering and exiting positions.¹²

Bid–ask spreads also remind you that “the price you see” may not be exactly the price you can trade at.

¹⁰Ongoing charges are typically deducted inside the fund, so you usually do not see them as a separate bill.

¹¹Depending on the market, explicit transaction costs can also include stamp duties or other transaction taxes.

¹²Spreads are often tighter for very liquid ETFs and can widen during market stress.

You see an ETF quoted at EUR 100.00 (bid) and EUR 100.10 (ask). Buying means paying EUR 100.10, while selling immediately would yield EUR 100.00. The EUR 0.10 difference is a cost of trading.

Self-check

1. What is the bid–ask spread, and why is it an implicit cost?
2. How does liquidity typically affect spreads?

3 Asset Classes and Investment Vehicles

3.1 Overview

Asset classes are groups of investments with similar risk–return characteristics. They are the building blocks of diversification and portfolio construction because they tend to respond differently to growth, inflation, and interest-rate changes. A simple retail-relevant view is:

- **equities:** ownership claims; higher long-run growth potential; higher short-run variability;
- **bonds:** contractual payments; typically lower variability than equities, but sensitive to interest rates and credit risk;
- **cash:** highest liquidity and lowest volatility, but often lower long-run return and exposed to inflation risk.¹³

You choose a mix of equities and bonds to balance long-run growth with more stability, while keeping some cash for near-term needs.

Self-check

1. Name the three basic asset classes in this onboarding and one key characteristic of each.
2. Why do asset classes matter for diversification?

3.2 Equities

Equities represent ownership shares in companies. You can earn returns through dividends and through price appreciation when the market values the company more highly. Equity returns are uncertain because they depend on future profits, competitive dynamics, and broader economic conditions. Because of this uncertainty, equities typically have higher volatility than bonds, but they can offer higher expected long-run returns as compensation for bearing risk.¹⁴

Public vs. private equity. *Public equity* refers to shares of companies that are listed on a stock exchange and can usually be traded easily. *Private equity* refers to ownership stakes in companies that are not publicly listed; trading is typically restricted, valuations are less transparent, and access is often via specialised funds or long lock-up structures.¹⁵

¹³In practice, “cash” in investing contexts can include money market funds.

¹⁴From a corporate finance view, equity holders are residual claimants.

¹⁵Private equity often includes buyout funds and venture capital.

To make this usable, focus on two questions: what drives the return and how much can the price fluctuate along the way.

Equities may support long-term growth for you, but a market downturn can reduce your portfolio value noticeably in a short period.

3.2.1 Dividends

A dividend is a cash payment a company may distribute to its shareholders. If you own a stock (or an equity fund that holds stocks), you may receive dividends as income. Dividends are not guaranteed. Dividends matter because they are one channel of equity return alongside price changes.¹⁶

If your equity ETF holds dividend-paying companies, you may receive small cash distributions or see them reinvested inside the fund.

Self-check

1. Name two channels through which equities can generate returns.
2. What is one practical difference between public and private equity for a retail investor?

3.3 Bonds

Bonds are debt instruments: you lend money to an issuer in exchange for interest payments and repayment of principal at maturity. Bonds are often perceived as “safer” than equities, but their value still changes over time, especially when interest rates move. Bonds also carry credit risk.¹⁷

An individual bond has a maturity date and promised principal repayment, whereas a bond fund holds many bonds and typically replaces maturing bonds with new ones. So a bond fund does not “mature” in the same way.

Bonds may provide more stable income-like characteristics for you, but if interest rates rise quickly, a bond fund can fall in price.

3.3.1 Issuer

The issuer is the borrower: the entity that raises money by selling the bond and promises to pay interest and repay principal. This matters because bond risk depends partly on the issuer’s ability to repay.¹⁸

3.3.2 Principal

Principal is the amount of money that is repaid at maturity (the bond’s face value). It matters because bond returns combine coupon payments and changes in bond prices, but the contract is anchored in a promised principal repayment.¹⁹

¹⁶Dividends are not “free money”: after a dividend is paid, the company has less cash.

¹⁷Bonds can still be risky: interest-rate risk affects price, and credit risk affects the probability of being paid in full.

¹⁸Sovereign issuers and corporate issuers differ in how they raise revenue and manage default risk.

¹⁹Bond prices can trade above or below principal depending on current yields.

3.3.3 Coupon Payments

A coupon is the interest payment a bond issuer promises to pay, typically at regular intervals. If you hold an individual bond, coupons are the cash flows you receive during the holding period. If you hold a bond fund, coupon income is pooled and reflected in distributions or reinvestment.²⁰

3.3.4 Credit Risk

Credit risk is the risk that the issuer cannot make promised payments in full and on time. Credit risk is different from interest-rate risk.²¹

3.3.5 Credit Ratings

Credit ratings provide a summary of perceived creditworthiness. Ratings can help you orient yourself, but they are not guarantees.²²

You compare two bond funds: one focused on higher-rated issuers and one on lower-rated issuers. You understand that higher yield often comes with higher credit risk.

Self-check

1. What are the two main components of bond returns?
2. Why can a bond fund continue to fluctuate even if individual bonds have maturities?
3. Name one difference between interest-rate risk and credit risk.

3.4 Collective Investment Vehicles: Mutual Funds and ETFs

Collective investment vehicles pool investor capital and invest it across many securities according to an investment strategy. A mutual fund is a fund you typically buy or redeem via the fund provider, while an ETF is a fund that trades on a stock exchange during the day like a share. Their main retail advantage is scale: they can provide diversification and investment access even for small monthly contributions.²³

A key distinction is that mutual funds are typically bought and sold via the fund provider, while ETFs are traded on exchanges during the day like stocks. Both can be passive or active.

You use a collective investment vehicle to gain exposure to many underlying securities with one product.

Self-check

1. What is the key difference in how mutual funds and ETFs are traded?
2. Why are collective investment vehicles useful for small monthly contributions?

²⁰“Coupon” is the promised payment; “yield” is the return implied by price.

²¹Credit spreads are one market way of summarising compensation for credit risk.

²²Ratings are opinions by rating agencies, not guarantees.

²³In regulated contexts, funds are subject to rules on disclosure, risk management, and custody.

4 Portfolio Basics (Minimum Vocabulary)

A portfolio is the set of investments you hold together. Thinking in portfolios matters because outcomes depend on the combination of assets: how risk, returns, liquidity, and costs interact across holdings.²⁴

Your “investment plan” is not one single asset. It is the combination of your ETF position, any bond exposure, and the cash buffer you keep for near-term needs.

4.1 Benchmark and Index

A benchmark (often an index) is a reference portfolio that frames expectations about risk and return. It describes a specific market exposure using predefined rules. When a fund tracks an index, the index defines what the fund aims to represent economically.

Benchmarks provide a yardstick for performance, clarify exposure, and anchor risk expectations.

If your global equity ETF tracks MSCI World, you expect your results to resemble the broad developed equity market.

Self-check

1. What is a benchmark (or index) used for in fund investing?
2. Why can two “global” indices behave differently?

4.2 Tracking Difference and Tracking Error

Tracking difference is the difference between a fund’s performance and its benchmark over a period. Tracking error describes how volatile the deviations from the benchmark are over time.

Even if the index returned +10% in a year, your ETF might return slightly less because fees and frictions reduce realised performance.

Self-check

1. In one sentence: what is tracking difference?
2. In one sentence: what is tracking error?
3. Name two common sources of tracking difference for an ETF.

4.3 NAV versus ETF Market Price

The NAV (net asset value) is the accounting value of the fund’s underlying holdings per share. ETFs trade at a market price on the exchange, which can be slightly above or below NAV.²⁵

You see your ETF’s bid and ask on the exchange. You understand that buying at the ask and selling at the bid creates a small immediate cost.

²⁴Portfolio thinking shifts the question from “which single asset is best” to “what combination meets your goals with acceptable risk”.

²⁵Arbitrage mechanisms usually help keep ETF market prices close to NAV.

Self-check

1. What does NAV represent in an investment fund?
2. Why might an ETF trade at a small premium or discount to NAV?

4.4 Share Classes: Accumulating versus Distributing

Share classes can differ by whether they accumulate (reinvest cash flows inside the fund) or distribute (pay out cash to you). This matters for cash flow planning and reinvestment.²⁶

If you do not need cash payouts, an accumulating share class can simplify reinvestment.

Self-check

1. What is the difference between accumulating and distributing share classes?
2. Give one reason a student investor might prefer an accumulating share class.

4.5 Replication Method: Physical versus Synthetic

ETFs can replicate an index physically (holding the underlying securities) or synthetically (using derivatives such as swaps). In a swap-based ETF, the fund enters a contract with a financial institution to receive the index return; this adds a small counterparty risk.²⁷

You compare two ETFs tracking the same index. One is physical and one is synthetic.

Self-check

1. What is the main difference between physical and synthetic replication?
2. What additional risk can arise in synthetic replication?

4.6 Value-Weighted versus Equal-Weighted

Many indices are value-weighted (market-cap weighted): larger companies have higher weights. Equal-weighted indices assign the same weight to each constituent, which changes exposure and can change risk and return patterns.²⁸

You learn that a “global” index ETF may be dominated by a small number of very large firms.

Self-check

1. In a market-cap weighted index, which firms have the largest weights?
2. Why can equal-weighted indices have higher costs or turnover?

²⁶Tax treatment can differ by jurisdiction.

²⁷Synthetic replication can sometimes reduce withholding tax drag for certain exposures, but it introduces counterparty considerations.

²⁸Equal weighting usually implies higher turnover and more rebalancing costs.

4.7 Factor Investing (Short Intuition)

Factor investing refers to systematic tilts toward specific characteristics of securities that are believed to be associated with long-run return differences. Commonly discussed factors include value, size, momentum, and quality.

If you buy a value ETF, you understand it is a deliberate tilt that can underperform the broad market for long periods.

Self-check

1. What does factor investing mean in one sentence?
2. Why can factor investing require a long time horizon?

5 Commonly Overlooked Risks

5.1 Currency Risk

Currency risk arises when your investments are exposed to a currency different from the one you use for spending. Even if the underlying assets perform well, exchange rate movements can increase or reduce your return in your home currency.²⁹

You invest in a global equity ETF. Even if the companies perform well, a change in exchange rates can affect your return when measured in EUR.

Self-check

1. What creates currency risk for a EUR-based investor?
2. Can your home-currency return differ from the fund's local-currency return? Why?

5.2 Concentration Risk

Concentration risk occurs when too much of a portfolio is exposed to a single company, sector, country, or style.³⁰

You assume your ETF is fully diversified, but the holdings reveal that a large share is in one country and one sector.

Self-check

1. Give two examples of concentration risk in a portfolio.
2. Why should you check holdings rather than relying on a fund's label?

²⁹Currency risk can be reduced via currency-hedged share classes, but hedging has costs.

³⁰A common surprise is concentration in a handful of mega-cap firms in market-cap-weighted indices.

5.3 Reinvestment Risk

Reinvestment risk describes the risk that future cash flows (such as bond coupons) will have to be reinvested at lower interest rates than expected.³¹

You hold a bond fund for stability and income. If interest rates fall, the fund may reinvest coupons and maturing bonds at lower yields.

Self-check

1. What is reinvestment risk in one sentence?
2. Why can reinvestment risk matter for bond funds when interest rates fall?

6 Practical Investing Mechanics

6.1 Asset Allocation and Rebalancing

Asset allocation is the decision of how much to invest in broad categories such as equities, bonds, and cash. Rebalancing means adjusting the portfolio back toward the intended allocation after market movements have shifted the weights.³²

Your equity ETF performs strongly and becomes a larger share of your portfolio than intended. To keep your risk level aligned with your plan, you rebalance.

Self-check

1. What is asset allocation?
2. Why do investors rebalance?

6.2 Order Types: Market versus Limit

A market order prioritises execution: you buy or sell quickly at the best available price. A limit order prioritises price: you specify the maximum price you will pay to buy or the minimum price you will accept to sell.³³

You place a small monthly ETF purchase. Using a market order is simple, but you learn that a limit order can help you control the price you pay.

Self-check

1. What is the key difference between a market order and a limit order?
2. Why might a limit order be useful in volatile or less liquid markets?

³¹Reinvestment risk is one reason why bond investors distinguish between holding to maturity and holding bond funds.

³²Rebalancing can trigger transaction costs, bid-ask spreads, and sometimes tax consequences.

³³In very liquid ETFs, market orders are often fine for small trades; in volatile or less liquid markets, limit orders can reduce unpleasant surprises.

6.3 Drawdowns

A drawdown is the decline from a previous peak in portfolio value to a subsequent low. It focuses on peak-to-trough losses rather than short-term fluctuations.

Drawdowns differ from volatility. Volatility measures how much returns fluctuate from period to period; drawdowns describe how severe losses become once markets move downward.

Your portfolio falls from a peak by 15% during a market downturn. You recognise this as a drawdown.

Self-check

1. What is a drawdown?
2. Why can drawdowns matter even if you plan to invest long term?

6.4 Taxes

Taxes can affect after-tax returns, and the relevant rules depend on jurisdiction and individual circumstances. This onboarding does not teach tax law.³⁴

Self-check

1. Why does this onboarding avoid teaching specific tax rules?
2. In one sentence, how can taxes affect investing outcomes?

7 Financial Markets and Structures

7.1 Primary Market

The primary market is where new securities are created and sold to investors for the first time. Examples include initial public offerings (IPOs) for shares or new bond issuances by governments and companies. In the primary market, capital flows directly from investors to the issuer.

If a firm issues a new bond to finance a project, that is a primary-market transaction. The money raised goes to the issuer, not to another investor.

Self-check

1. What happens in a primary market transaction?
2. Who receives the money when a new bond is issued in the primary market?

7.2 Secondary Market

The secondary market is where existing securities are traded among investors after issuance. It provides liquidity and price discovery through continuous trading. Most retail investors participate almost exclusively in secondary markets.

³⁴Even when taxes are not central in an onboarding, they are often one reason why otherwise similar products can lead to different net outcomes.

Secondary markets matter even though issuers do not receive cash from these trades. Market prices determine how easily investors can buy or sell, influence portfolio values, and affect future financing conditions for issuers.

Most investments available to you are bought and sold in secondary markets. When news changes expectations, an ETF price can move within minutes.

Self-check

1. What is the core function of secondary markets for retail investors?
2. Why do secondary market prices matter even if firms do not receive cash from trades?

8 Reading Simple Product Documents (Minimum Skill Set)

8.1 Why Product Documents Matter

This onboarding assumes no specialised finance background, but it does expect you to recognise the recurring structure of simple product documents, such as a factsheet or a key information document. Such documents are designed to provide a quick overview, but they still require interpretation.³⁵

Before investing, you can use a one- or two-page summary document as a checklist: What is the product? What does it invest in? How risky is it? What does it cost? How liquid is it, and what does trading actually involve?

8.2 Overview Sections: Purpose, Fees, and Risk

Most factsheets begin with an overview section that summarises the product's objective, basic characteristics, ongoing charges, and a simplified risk indicator.

³⁵In the EU, you may encounter PRIIPs Key Information Documents (KIDs).

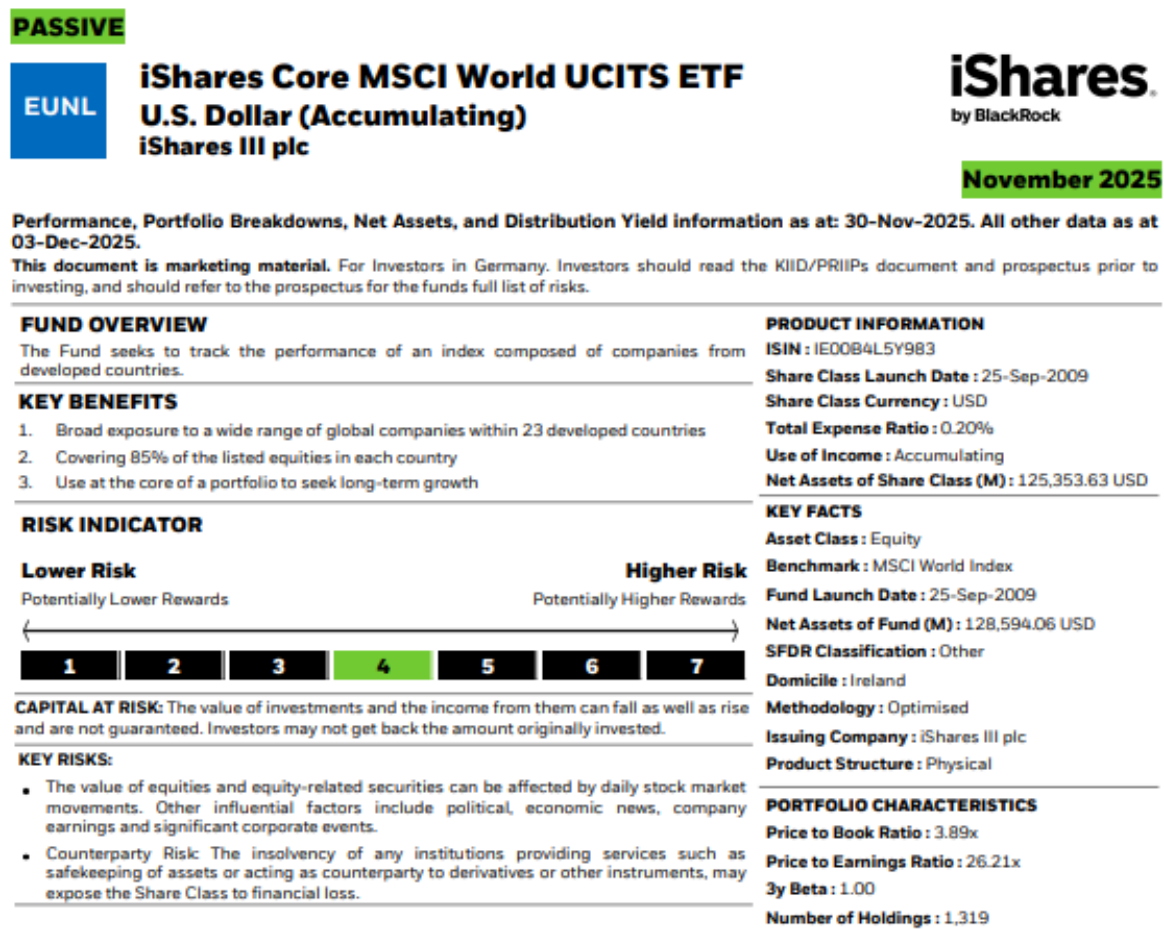


Figure 1: Example factsheet overview (provider summary, costs, and risk indicator).

Before you even look at performance, you identify what the product is, the ongoing charges, and the risk indicator.

8.3 Risk Indicators

Product documents often contain a simplified risk indicator, such as a scale ranging from low to high risk. This indicator provides orientation, but it should not be interpreted as a precise forecast or a guarantee. Connect the risk score back to volatility and drawdowns.³⁶

In Figure 1, locate the risk indicator bar. You read it as a relative signal and connect it to your own time horizon.

8.4 Fee Disclosure

Fee information typically includes ongoing charges and, in some cases, estimates of transaction costs. The most important step is to identify the recurring annual fee and remember that it applies every year, regardless of performance.³⁷

³⁶In regulated documents, the exact method behind a risk indicator is standardised, but it remains a simplification.

³⁷Cost disclosure is improving, but no single number captures all implementation frictions.

In Figure 1, find the ongoing charge or fee number. You interpret it as a per-year drag on compounding.

8.5 Holdings and Portfolio Information

Most factsheets provide some form of portfolio breakdown, such as asset class exposure, geographic distribution, sector weights, or a list of top holdings. This information helps you understand what actually drives returns and risk.³⁸

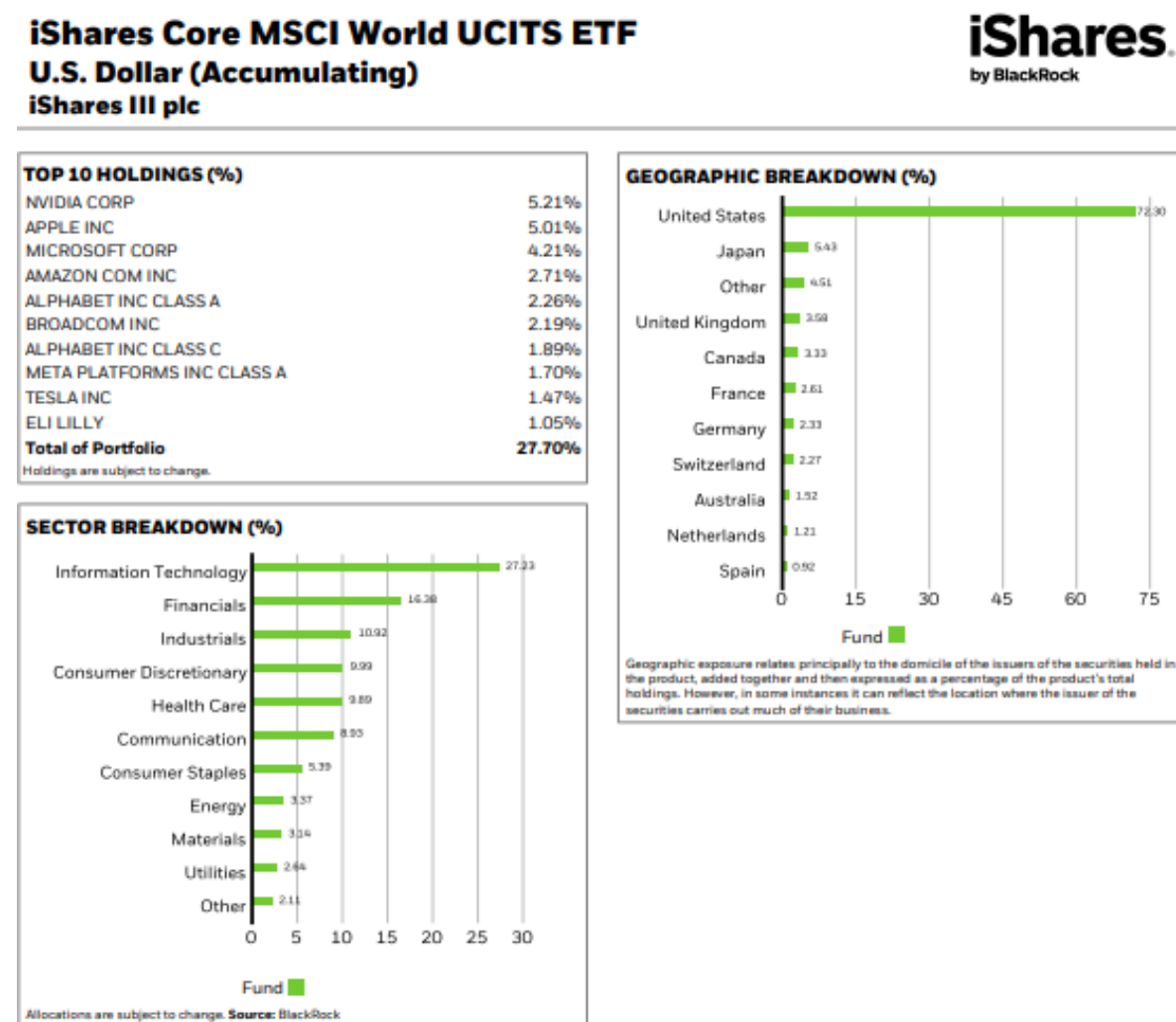


Figure 2: Example factsheet holdings (top holdings, sector and geographic breakdown).

In Figure 2, you check top holdings, sector breakdown, and geographic breakdown, then translate this into concentration risk.

8.6 Reusable Checklist for Product Documents

Use the checklist below for any factsheet or key information document. The goal is to create a structured habit that prevents decisions based on labels, marketing, or a single performance number.

³⁸Holdings snapshots can change over time.

- What is the product and its benchmark or index? (see Section 4.1: Benchmark and Index.)
- What does it hold and how concentrated is it? (see Section 8.5: Holdings and Portfolio Information and Section 5.2: Concentration Risk.)
- Risk indicator: what does it imply, and what does it not imply? (see Section 1.2: Risk and Volatility and Section 6.3: Drawdowns.)
- Costs: identify ongoing charges; check transaction costs and consider bid–ask spreads. (see Section 2.2: Ongoing Charges, Section 2.3: Transaction Costs, and Section 2.4: Bid–Ask Spreads.)
- ETF specifics if applicable: NAV versus market price, share class, replication method, and tracking difference. (see Section 4.3: NAV versus ETF Market Price, Section 4.4: Share Classes: Accumulating versus Distributing, Section 4.5: Replication Method: Physical versus Synthetic, and Section 4.2: Tracking Difference and Tracking Error.)
- Currency exposure: if the holdings are global, identify whether currency movements can affect your results. (see Section 5.1: Currency Risk.)
- What information is missing? If something is unclear, locate the prospectus or provider documentation and look for a more detailed explanation.

Transfer Task: Comparing Two Real-World Product Factsheets

You are given two real-world product factsheets for equity investments with a sustainability focus:

- **Product A:** a passive, low-cost ETF that tracks a sustainability-aligned equity index.
- **Product B:** an actively managed sustainable equity fund with higher ongoing charges.

Both products invest primarily in U.S. equities and are marketed as sustainability-oriented. They differ, however, in how exposure is constructed, how decisions are made, and how costs arise.

Your task is not to decide which product is better. The goal is to practise reading factsheets and translating marketing-style information into a structured economic comparison using concepts from this onboarding.

Product A: Passive Sustainability-Aligned ETF

Franklin S&P 500 Paris Aligned Climate UCITS ETF

IE00BMDPBZ72

Multi-Factor | Factsheet as of 30 November 2025

This is a marketing communication. Please refer to the prospectus of the UCITS and to the KIID before making any final investment decisions.

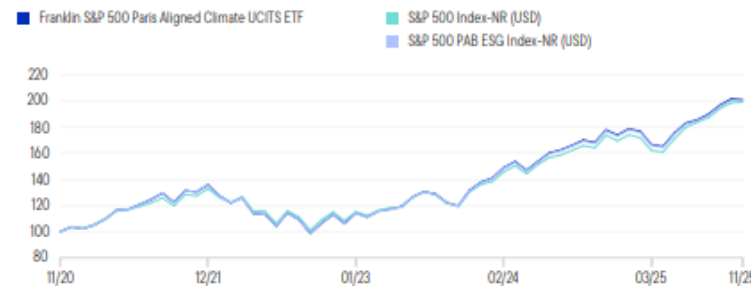
This product is based overseas and is not subject to UK sustainable investment labelling and disclosure requirements.

Investment Overview

To provide exposure to large capitalisation US stocks which are aligned to the transition to a low carbon economy. The Fund invests in equities of US companies of large market capitalisation that transition to a lower carbon economy or are less exposed to climate transition risks. These investments are included in the benchmark.

Past performance does not predict future returns.

Performance Over 5 Years (%)



Discrete Annual Performance (%)

	11/24	11/23	11/22	11/21	11/20	11/19	11/18	11/17	11/16	11/15
Fund	13.09	35.13	16.25	-13.21	30.44	—	—	—	—	—
Investment Universe	14.56	33.34	13.27	-9.65	27.37	—	—	—	—	—
Underlying Index	12.95	35.04	16.08	-13.35	30.42	—	—	—	—	—

Total Returns (%)

	Cumulative					Average Annual					Inception Date
	1-Mo	3-Mo	YTD	1-Yr	3-Yr	5-Yr	Inception	3-Yr	5-Yr	Inception	
Fund	-0.21	5.86	15.59	13.09	77.66	101.13	125.95	21.11	15.00	16.50	29/7/2020
Investment Universe	0.21	6.24	17.40	14.56	73.02	99.12	122.26	20.05	14.77	16.14	—
Underlying Index	-0.24	5.82	15.47	12.95	77.05	100.09	124.86	20.97	14.88	16.39	—

The fund's returns may increase or decrease as a result of changes to foreign exchange rates. All performance data shown is in the fund's base currency. Performance data is based on the net asset value (NAV) of the ETF which may not be the same as the market price of the ETF. Individual investors may realise returns that are different to the NAV performance. **Past performance does not predict future returns.** The actual costs vary depending on the executing custodian. In addition, deposit costs may be incurred which could have a negative effect on the value. Please find out the costs due from the respective price lists from the processing/custodian bank. Changes in exchange rates could have positive or negative effects on this investment. **Please visit <https://www.franklinresources.com/all-sites> for current performance and see the latest prospectus or supplement for further details.** When performance for either the portfolio or its benchmark has been converted, different foreign exchange closing rates may be used between the portfolio and its benchmark.

Morningstar Rating™

Overall Rating as of 30 November 2025



Fund Overview

Umbrella	Franklin Templeton ICAV
Fund Base Currency	USD
Fund Inception Date	29/07/2020
Bloomberg	500P LN
Valor Number	55097166
ISIN	IE00BMDPBZ72
Domicile	Ireland
UCITS	Yes
Product Structure	Physical
Replication Methodology	Full Replication
Frequency of Index	
Reconstitution	Quarterly
Use of Income	Accumulation
Fiscal Year End	30 June
Shares Outstanding	8,950,000
EU SFDR Category	Article 8
Underlying Index Ticker	SP50PAUN

Benchmark(s) and Type

S&P 500 Index-NR	Investment Universe
S&P 500 PAB ESG Index-NR	Underlying Index

Charges

Total Expense Ratio	0.07%
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The charges are the fees the Fund charges to investors to cover the costs of running the Fund. Additional costs, including transaction fees, will also be incurred. These costs are paid out by the Fund, which will impact on the overall return of the Fund. Fund charges will be incurred in multiple currencies, meaning that payments may increase or decrease as a result of currency exchange fluctuations.

Fund Characteristics

	Fund	Investment Universe
Total Net Assets (USD)	\$509.57 Million	
Number of Holdings	272	503
Price to Book	6.48x	5.44x
Price to Earnings (12-Month Trailing)	30.41x	28.28x
Return on Equity	33.26%	29.75%
Dividend Yield	1.06%	1.13%
Standard Deviation (5 Yr)	15.79%	15.01%

Figure 3: Product A – Factsheet overview (objective, benchmark, costs, risk indicator).

Franklin S&P 500 Paris Aligned Climate UCITS ETF

as of 30 November 2025

Top Equity Issuers (% of Total)

	Fund	Exchange	Ticker	Currency	Bloomberg	Reuters	SEDOL
NVIDIA CORP	7.65	Borsa Italiana	USPA	EUR	USPA IM	USPAMI	BMXBIX3
APPLE INC	7.41	Deutsche Börse Xetra	FLX5	EUR	FLX5 GY	FLX5.DE	BMXBW2
MICROSOFT CORP	6.62	Euronext Amsterdam Exchange	USPA	EUR	USPA NA	FLX5.AS	BKY8CX6
ALPHABET INC	6.37	London Stock Exchange	500P	GBP	500P LN	500P.L	BMXBIV1
TESLA INC	3.35	London Stock Exchange	USPA	USD	USPA LN	USPAL	BMDPBZ7
VISA INC	2.90	SIX Swiss Exchange	USPA	USD	USPA SW	USPA.S	BMXBIV4
AMAZON.COM INC	2.77						
MASTERCARD INC	2.49						
ABBVIE INC	2.32						
BROADCOM INC	2.05						

Portfolio Management

	Years with Firm	Years of Experience
Dina Ting, CFA	9	29
Lorenzo Crosato, CFA	8	27
David McGowan, CFA	4	12

Sector Allocation (% of Total)

	Fund	Investment Universe
Information Technology	37.42	34.58
Financials	13.64	13.06
Communication Services	11.00	10.71
Health Care	10.67	9.77
Consumer Discretionary	10.55	10.26
Industrials	7.01	8.03
Consumer Staples	5.05	4.85
Real Estate	2.07	1.87
Others	2.49	6.88
Cash & Cash Equivalents	0.09	0.00

What are the Risks?

The Fund does not offer any capital guarantee or protection and you may not get back the amount invested. The Fund is subject to the following risks which are materially relevant: **Counterparty risk:** the risk of failure of financial institutions or agents (when serving as a counterparty to financial contracts) to perform their obligations, whether due to insolvency, bankruptcy or other causes. **Derivative Instruments risk:** the risk of loss in an instrument where a small change in the value of the underlying investment may have a larger impact on the value of such instrument. Derivatives may involve additional liquidity, credit and counterparty risks. **Foreign Currency risk:** the risk of loss arising from exchange-rate fluctuations or due to exchange control regulations. **Index related risk:** the risk that quantitative techniques used in creating the Index the Fund seeks to track do not generate the intended result, or that the portfolio of the Fund deviates from its index composition or performance. **Secondary market trading risk:** the risk that the shares purchased on the secondary market cannot usually be sold directly back to the Fund and that investors may therefore pay more than the NAV per share when buying shares or may receive less than the current NAV per Share when selling shares. Complete information on the risks of investing in the Fund are set out in the Fund's prospectus.

Glossary

Total Expense Ratio: Total Expense Ratio (TER) includes the fees paid to the management company, the investment manager and the depository, as well as certain other expenses. The TER is calculated by taking the relevant main material costs paid out over the 12-month period indicated and dividing them by the average net assets over the same period. The TER does not include all expenses paid by the fund (for example, it does not include what the fund pays for buying and selling securities). For a comprehensive list of the types of costs deducted from fund assets, see the prospectus. For recent all-in annual costs, as well as hypothetical performance scenarios that show the effects that different levels of return could have on an investment in the fund, where applicable, see the KIID. **Product Structure:** The Product Structure indicates whether an ETF is holding physical securities (i.e. Physical) or whether it is tracking the index performance using derivatives (swaps, i.e. Synthetic). **Methodology:** The Methodology indicates whether an ETF is holding all index securities in the same weight as the index (i.e. Physical Replication) or whether an optimised subset of index securities is used (i.e. Optimised) in order to efficiently track index performance. **Price to Book:** The price per share of a stock divided by its book value (i.e., net worth) per share. For a portfolio, the value represents a weighted average of the stocks it holds. **Price to Earnings (12-Month Trailing)** is the share price of a stock, divided by its per-share earnings over the past year. For a portfolio, the value represents a weighted average of the stocks it holds. **Return on Equity:** A measure of a corporation's profitability that reveals how much profit a company generates with the money shareholders have invested. For a portfolio, the value represents a weighted average of the stocks it holds. **Dividend Yield** is the annual dividend received on an equity security as a percentage of the price. For a portfolio, the value represents a weighted average of the stocks it holds. It should not be used as an indication of the income received from this portfolio. **Dividend Yield is calculated without the deduction of fees and expenses.** **Standard Deviation:** Measure of the degree to which a fund's return varies from the average of its previous returns. The larger the standard deviation, the greater the likelihood (and risk) that a fund's performance will fluctuate from the average return.

Portfolio Data Information

Holdings are provided for information purposes only and should not be deemed a recommendation to buy or sell the securities mentioned.

Figure 4: Product A – Holdings and portfolio breakdown.

Product B: Actively Managed Sustainable Equity Fund

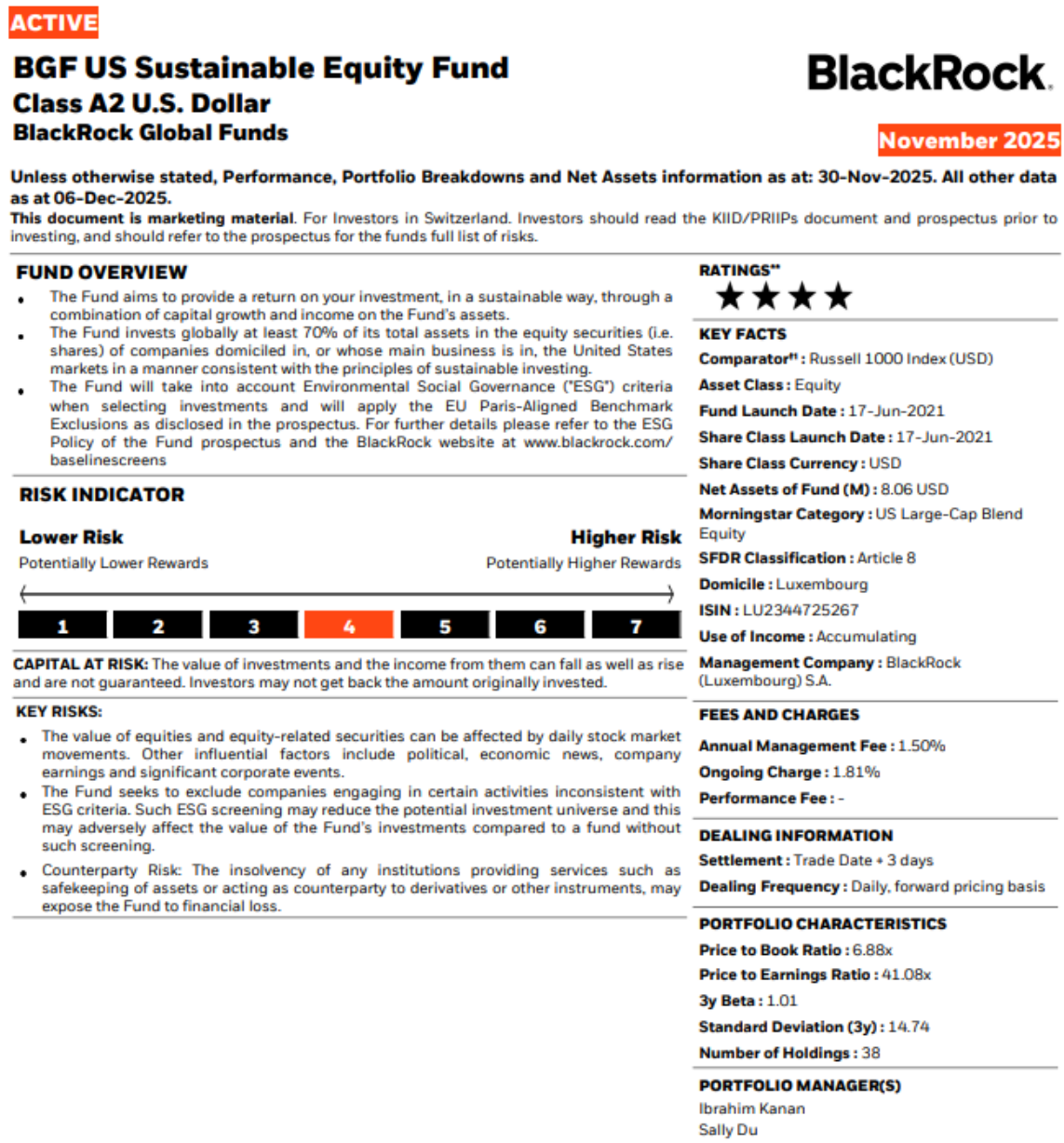


Figure 5: Product B – Factsheet overview (strategy, fees, risk indicator).

BGF US Sustainable Equity Fund
Class A2 U.S. Dollar
BlackRock Global Funds

BlackRock

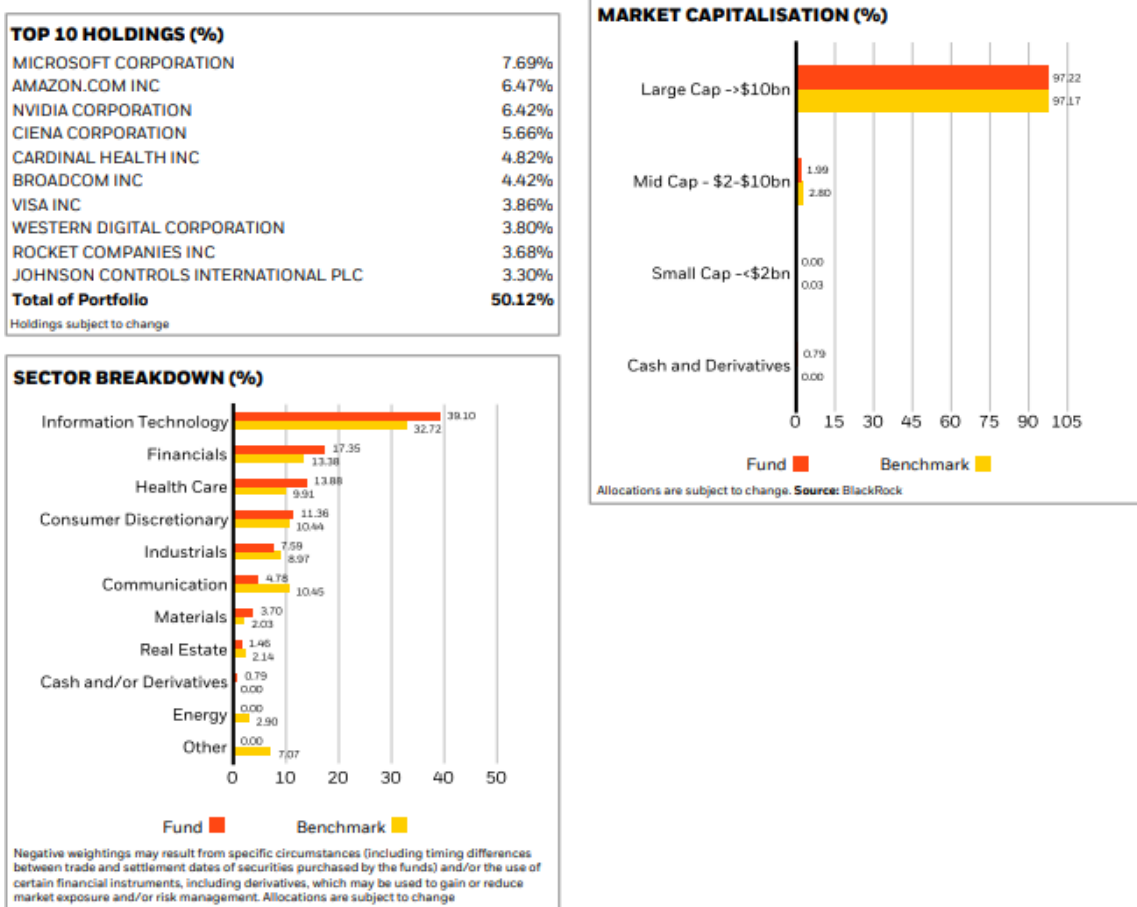


Figure 6: Product B – Holdings and portfolio characteristics.

Comparison Task

Use the table below to summarise and compare the two products. Focus on what the factsheets explicitly show and link your observations back to concepts from this onboarding.

Item	Product A	Product B
Product type and structure (ETF / mutual fund)		
Benchmark or reference index		
Investment approach (index tracking vs. active selection)		
Sustainability approach (index rules, exclusions, manager discretion)		
Number of holdings and degree of concentration		
Risk indicator and main risk drivers		
Ongoing charges (annual)		
Other relevant costs or trading frictions		
Expected source of return differences (relative to the benchmark)		
Liquidity and trading characteristics		
Investor profile (one sentence) (what type of investor might this fit?)		

Hint: Do not rely on labels or ratings alone. Use the holdings, costs, structure, and benchmark information to support your answers.

How This Prepares You for Module 1

Being able to read simple product documents is a practical skill that will be used throughout the course. In Module 1, you will encounter sustainability-related claims and disclosures that build on the same core structure: objectives, risk, costs, and underlying holdings. If you can locate and interpret these elements in a basic factsheet, you will be better prepared to evaluate

sustainability-related information without being distracted by unfamiliar financial terminology.³⁹

³⁹This onboarding is intentionally product-agnostic. Later modules may add sustainability-specific framing, but the reading logic stays the same.

References

References

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- *What Is an ETF and How Does It Work?* (2024). Morningstar. <https://global.morningstar.com/en-gb/etfs/what-is-an-etf-a-brief-explainer>

Fund Factsheets

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- Franklin S&P 500 Paris Aligned Climate UCITS ETF (n.d.). Franklin Templeton. https://www.franklintempleton.co.uk/our-funds/etf/price-and-performance/products/29819/SI_NGLCLASS/franklin-s-p-500-paris-aligned-climate-ucits-etf/IE00BMDPBZ72
- iShares MSCI World UCITS ETF (n.d.). BlackRock. <https://www.ishares.com/de/privatanleger/de/produkte/251882/ishares-msci-world-ucits-etf-acc-fund>

Videos for Self-Study

- *Explaining Basic Financial Concepts You Should Understand* (2023). YouTube. <https://www.youtube.com/watch?v=A9Xq3FGjpZA>
- *Introduction to Financial Analysis: Fundamentals of Finance* (2023). YouTube. <https://www.youtube.com/watch?v=uJf-b61QVfE>
- *Introduction to Financial Management / Fundamentals of Finance* (2022). YouTube. <https://www.youtube.com/watch?v=mAmPgXAb96g>