

# The case for asset-based finance

### Alternative investments

Authors: Tony Petrov, Strategist, UBS Switzerland AG; Antoinette Zuidweg, Alternative Investments Strategist, UBS Switzerland AG; Karim Cherif, Head Alternative Investments, UBS Switzerland AG; Matthew Carter, Strategist, UBS AG London Branch

- Private asset-based finance is a maturing asset class in the fast-growing private credit space.
- Managers engage in pooled lending secured by contractual cash flows from a variety of assets, including consumer loans, residential and commercial mortgages, hard assets, and specialty finance.
- We think ABF has the potential to bring diversification benefits and enhanced investor safeguards to a portfolio, as well as attractive risk-adjusted returns. But the wide performance dispersion among managers warrants critical manager selection.

#### Introduction

Private credit is one of the fastest-growing segments of global markets. At the end of 2023, the space accounted for USD 1.7tr of assets under management (Preqin). Stricter regulation and higher capital requirements for banks spurred this growth, and we expect this to continue over the years ahead.

While direct lending is the more wellknown strategy in the space, it is neither the biggest part of private credit markets nor the only potential opportunity. The private asset-based finance (ABF) market, which engages in lending against contractual cash flows of various assets, represents about USD 5tr overall. Importantly, we expect additional bank regulation (including on smaller banks) to follow from the US regional bank crisis in 2023, providing a further boost to non-bank asset-backed lenders.

In this primer, we explore asset-based finance, particularly provided through private markets. As many investors may not be familiar with this asset class, we aim to describe what it is, and the diverse pool of assets it includes. We also describe the potential benefits of adding assetbased finance to a portfolio that private investors may have overlooked, given the dominance of institutional investors in



this field, as well as the risks investors should pay attention to.

### What is private ABF?

Private asset-based finance (ABF) refers to private credit managers engaging in pooled lending secured by contractual cash flows from a variety of assets, including consumer loans, residential and commercial mortgages, hard assets, and specialty finance. Loans are often privately originated, and these cash flows generate the bulk of returns for investors, reflecting a cross-section of the "real" economy.

### How is this different from ABS?

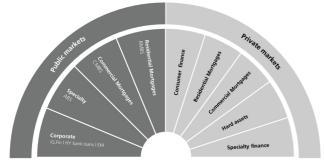
Asset-backed finance falls into two broad categories: publicly traded structured finance (ABS) and private assetbased finance. While both markets exhibit overlaps in terms of sector exposure and position on the capital structure, ABS is generally more liquid and benefits from a secondary market. Private ABF, meanwhile, involves the side of the market that is privately originated, negotiated, and tailored to specific capital needs. Another difference is that private ABF non-bank lenders provide capital to borrowers, who, even if creditworthy, may find it difficult to access financing through banks. The more niche and esoteric the collateral, the more it suits private asset-based lending.

This report has been prepared by UBS Switzerland AG and UBS AG London Branch. Please see important disclaimers and disclosures at the end of the document.

### Market and economic drivers

ABF caters to the needs of borrowers and investors, creating a dynamic supply and demand in the financial markets. Borrowers leverage ABF to raise capital efficiently, improving their balance sheets and ratios, and fast and efficient access to capital, thereby increasing the supply of such assets. Meanwhile, the demand side is driven by investors drawn to ABF's favorable structure, predictable and frontloaded cash flows, and potential for higher yields, which offer a diversified investment avenue. This mutual attraction enhances market breadth and depth, ensuring a steady supply of capital for borrowers and resilient demand from investors.

### Figure 1: ABF investment universe



Source: UBS

### Loan types in the private ABF universe

ABF managers give investors access to a mix of publicly and privately sourced loans, beyond the exposure to corporate loans available in the private credit market. The areas differ in their collateral, loan duration, structuring and yields can be broadly defined as below:

- Consumer finance includes pools of consumer debt. These debts are typically small and diversified, encompassing various types of consumer loans. Consumers often borrow to finance larger acquisitions or investments such as cars, home improvement loans, or higher education via student loans. These can be accessed as whole loans or pooled and purchased through asset-backed securities. The value of the underlying assets provides a layer of credit protection in this case. Depending on the type, loan durations vary from a few months to several years. For instance, prime automobile loans have maturities from 36 to 72 months with an average unlevered yield of ~6–8%.
- Residential mortgages, which can include whole loan household mortgages or securitized products of pooled residential mortgages. This segment generally provides predictable cash flows, with property serving as collateral. Investors in this segment may also have exposure to:

- non-qualified mortgages, often written to selfemployed borrowers, for example, who cannot provide employer certificates as a proof of income;
- □ residential transition loans for large renovation projects, which are often used for "fix and flip" transactions involving buying, improving, and then selling a property at a higher price;
- □ Single-family rental loans, which are meant for investment properties that will be rented out to tenants as opposed to home loans for owner-occupied properties.

Loans in this category typically have a weighted average life of 4–8 years, with current unlevered yields in the 6-12% range.

- *Commercial mortgages* include pools of commercial real estate loans, which can offer downside protection compared to exposure to single properties. The assets underpinning these pools include commercial property types like multifamily buildings, offices, healthcare facilities, or hotels.
- Hard assets are structures that are secured by cash flows coming from loans or leases against physical assets. Loan types are varied, ranging from fleet leasing against rental cars or aircraft, shipping loans, and special equipment used, for example, in agriculture or manufacturing, through to infrastructure assets like fiber networks, telecom hardware, and solar plants. Hard assets are typically essential for a business to operate and have substantial value. Investments in hard assets typically have an average loan life of 3–4 years and unlevered yields in the range of 7–12% depending on the asset type.
- Specialty finance includes lending against specific assets like inventory, equipment, receivables, or real estate to offer credit to smaller and medium-sized companies, but also contractual cash flows coming from intellectual property, such as music royalties. Specialty finance requires strong collateral protection for the pledged assets to be revenue generating and/or essential for borrower operations. These features provide greater confidence and compensation to investors for the additional credit risks borne in lending to smalland middle-market companies. Specialty finance loans typically have a weighted average life of 2–4 years, with current unlevered yields in the 6–12% range.

### **Investor benefits**

ABF offers investors several features that may be appealing additions to an investment strategy, whether they are looking for differentiated sources of return beyond traditional assets classes, ways to reduce swings in their portfolio, or to improve liquidity (ease of access to funds).

First, ABF offers **better investor protections** than traditional lending, which can come in the form

- *Bankruptcy remoteness* through special purpose vehicles (SPVs) to separate from the lending entity, distancing investor's money from the entity's financial status and isolating assets and liabilities in case of a sponsor's bankruptcy.
- Contractual cashflows and over-covered borrowings bring stability. While traditional corporate debt relies on borrower creditworthiness, ABF derives its protection from the front-loaded cash flows, and often "overcollateralization" of the underlying asset pool.
  For instance, auto loan-backed debt uses consumer payments and vehicles as extra collateral, enabling loss recovery through collateral liquidation in defaults.
- Strong covenants and asset triggers, which include, debt service, leverage, collateral quality tests, tied to metrics like cash, capital, or EBITDA. Additionally, asset triggers are in place to react to loan pool deterioration, potentially requiring extra collateral or cash retention, thereby de-risking the loan. Also, third-party trustees monitor segregated bank accounts, ensuring compliance and reducing fraud or mismanagement.

Secondly, ABF offers **diversification benefits** for the following reasons:

- *Diversity of underlying assets:* the versatile pool of loans, leases, or receivables from various borrowers or lessees, reducing individual default risks. The wide range of payers, from cardholders to airlines, ensures ABF performance isn't heavily reliant on any single entity.
- ABF holds in-built interest rate hedge properties, as underlying assets are often priced off floating-interest rates. Coupons are also adjusted periodically in line with short-term interest rates. This characteristic makes ABF particularly valuable in scenarios of high interest rates or high inflation.
- Intrinsic diversity enhances ABF's stability, offering potential resilience in economic uncertainty and volatility, underscoring the importance of skilled management in maximizing returns and mitigating risks.

Finally, ABF can **dampen liquidity and interest rate risks** as it employs matched duration funding and amortization, aligning with collateral loan durations. Additionally, the portfolio's weighted average life (WAL) is typically 1-5 years,

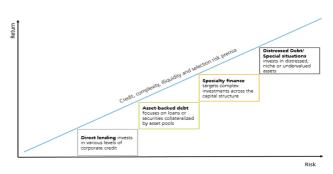
indicating lower credit risk due to the shorter duration of outstanding principal.

### Performance

Providing definitive private asset performance is challenging. It is especially so for private asset-based finance, given the diversity and bespoke nature of deals as earlier outlined. Nevertheless, we can provide some general observations.

Average annualized returns of ABF funds typically range from 6% to more than 15%. We judge these returns, when adjusted for risks, to be attractive—thanks to the pooling of diversified assets, use of credit enhancements like overcollateralization, and strong contractual covenants to insulate investors.

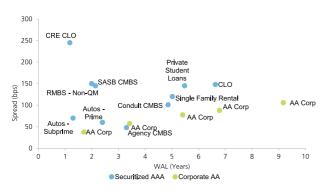
### Figure 2: Private credit domain



Source: UBS

The primary driver of returns is income. Many managers pay out income streams of between 4% and 10% per year. ABF returns primarily come from the interest and principal payments on the underlying asset classes, such as loans, leases, receivables or royalties. The diversity of these assets often allows for higher yields compared to traditional fixed-income securities. We show the spread landscape in Figure 3 below. On average, ABF can deliver annual returns between 50 and 300 basis points larger than other types of similarly rated debt.

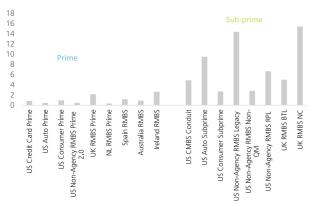
Figure 3: Credit spread vs. weighted avg life, AAA securitized and AA corp. FI



Source: : Goldman Sachs, UBS, as of February 2024

Defaults and delinquencies also drive ABF returns. Here the outlook is mixed, as shown in Figure 4. While prime ABS sectors continue to show strength, delinquencies in non-prime areas have increased, particularly in the mortgage and auto loan sectors. This reflects broader economic challenges and financial pressures faced by lower-income (and higher credit-risk borrowers). However, we note that overall pricing and returns for this diverse sector should contain default risks for well-diversified ABF investors.

## Figure 4: Delinquency varies across sectors (in % of all collateral balance)



Source: Citigroup Inc., UBS, as of February 2024

Investors may wonder how borrowing affects returns. Many ABF strategies do use leverage to amplify returns on their underlying assets. This includes using borrowed funds to invest in a larger or more diverse pool of assets to find higher return opportunities or diversify exposures.

Using leverage increases the risk of returns falling in a slower growth or higher interest rate environment. Returns in leveraged assets will also be more sensitive to investor sentiment and risk appetite than unlevered ones.

### ABF in your portfolio

ABF offers a distinct role in investment portfolios through its diversification potential, especially in fixed income portfolios that are often concentrated in corporate and alternative debt. The strategies' diverse pool of underlying assets across different credit profiles and geographic regions provides lower volatility and/or moderate correlation with other asset classes. As shown in table 1, ABF has an average long-term correlation of 0.48 to US corporate debt and 0.58 to private direct lending. Additionally, the stable, collateral-based cash flows generated by ABF are particularly beneficial in times of macroeconomic volatility and economic uncertainty offering an effective hedge against inflation and adding resilience to portfolios.

## Table 1: Long-term correlation matrix across various asset classes

Avg Correlation	0.55	0.39	0.62	0.66	0.54	0.59
ABF	0.54	0.48	0.68	0.69	0.58	-
Direct Lending	0.57	0.22	0.70	0.65	-	0.58
US High Yield	0.67	0.52	0.78	-	0.65	0.69
US Loans	0.59	0.33	-	0.78	0.70	0.68
US IG	0.39	-	0.33	0.52	0.22	0.48
US Equities	-	0.39	0.59	0.67	0.57	0.54
	US Equities	US IG	US Loans	US High Yield	Direct Lending	ABF

Source: S&P 500 Index, Bloomberg US Corporate TR Index, LSTA Leveraged Loan Index, BofA US High Yield, Cliffwater Direct Lending Index, ICE BofA US ABS & CMBS Index to proxy for ABF returns, UBS, as of February 2024

Managers can address non-performing assets to mitigate investor losses and enhance recoveries through active management, particularly in sectors like residential real estate, consumer, and small business lending. The broad scope of ABF allows for active returns through the breadth of the various investment approaches and asset classes. This, coupled with the significant skill disparity in private asset management, presents broader opportunities for managers to achieve superior potential returns and effectively manage risks while positively impacting investor outcomes. As such, the need to choose seasoned investment managers with proven track records in a specific part of the ABF market including through different business cycles—is key, in our view.

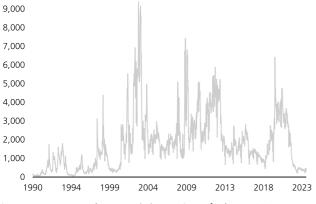
### Key risks

ABF offers attractive yields and diversification, but investors should be aware of the challenges like illiquidity and complexity, and risks to successfully navigate this landscape.

- **Credit risk and collateral quality** are key risks in ABF, as they directly affect its performance and risk-return profile. Fluctuations in the value and quality of underlying assets, such as loans and leases, and related delinquencies, significantly impact ABF. During the GFC for example, poor collateral quality in mortgage-backed securities resulted in mass delinquencies and major losses.
- Economic factors also play a pivotal role. Broader economic shifts or changes in consumer behavior, like a recession or higher unemployment, can cause higher default rates on loans in ABF facilities, resulting in greater credit losses for investors.
- Given the bespoke and idiosyncratic nature of the asset class, **concentration risk** is a concern when the asset pool lacks diversity. If an ABF is heavily concentrated in one type of asset or sector, it's more vulnerable to economic shifts. This highlights the importance of strategic portfolio construction and risk management in ABF investments.
- The private ABF market is typically less liquid than other types of credit debt, such as corporate bonds, making it harder to sell at a fair price, especially in market stress.
- ABF can carry prepayment risk and extension risk. Particularly in consumer mortgage loans, early repayments driven by lower rates and refinancings can force reinvestment at less favorable rates and impact investor return. On the other hand, higher interest rates can slow loan prepayments, extending investment periods at lower rates and increasing mortgage durations.

# Figure 5: MBA mortgage refinance index in the United States

An indication of the refinancing activities on US consumer mortgages



Source: Mortgage Bankers Association, UBS, as of February 2024

- Regulatory changes can also significantly impact ABF's risk-return profile, warranting ongoing diligence from managers and investor flexibility.
- Lastly, performance dispersion among ABF managers varies widely due to differences in expertise, risk management strategies, and asset selection and diversification. Some managers invest broadly across sub-asset classes, while others specialize in areas more sensitive to economic cycles. This dispersion, combined with managers' ability to navigate market shifts, operational efficiency, and use of leverage, leads to a broad range of potential returns. Investors and managers should conduct extensive due diligence to optimize long-term success and mitigate risks.

### Appendix – ABF in detail

### I. How managers access ABF

As ABF covers multiple sectors, successful management requires expertise on both asset level and instrument creation. Managers need to be able to maintain or improve control over the underlying assets, while building flexible structures that can navigate shifting macro- and microeconomic conditions. Specialist expertise may be crucial for certain types of ABF assets, given that each category has its own characteristics.

Practically, gaining exposure can take different shapes or forms across the following categories:

Whole loans, which can include exposures made to residential mortgage or consumer borrowers. Both bank and non-bank lenders can originate pooled loans, which can then be either tranched or untranched and include a specific collateral profile.

Public securitizations trade on public markets, requiring periodic reporting. These assets are generally described as public ABS. While ABS provides investors with generally liquid instruments with different layers of risk and return, buyers may have limited control over pricing and terms.

Private ABF is a market where instruments are negotiated bilaterally, including private securitizations or bridge financing requiring structuring expertise and in-depth knowledge of the assets involved on the lender's side. This expertise helps setting up loan terms, covenants and collateral on one hand, and offers borrowers flexibility on the other. This flexibility, however, comes at a premium for borrowers over public ABF.

Access to specialized loan origination platforms through partnership or ownership. Managers can source loans through originators and servicers, or in some cases seek to gain direct control and exposure to proprietary deal flows by gaining ownership of said originators. The benefits of this practice include:

- Gaining preferential rights and participating in originator platform expansion. Preferential rights can include rights of first refusal on originated loans or debt securitization.
- Reducing the number of intermediary parties.
- Performing direct due diligence and maintaining oversight and control of credit documentation, which helps lower risks.

Originator control, however, requires in-depth knowledge of the assets on the loan platform and structuring expertise to fully realize the benefits of flexibility and potentially lower risks.

### **II. Securitization basics**

Securitization, at the simplest level, is a form of financial market repackaging. Essentially it is the process of transforming an asset into a marketable form.

ABF can include either securitized or unsecuritized collateral. In the cases where managers choose securitization, the following reasons help explain why:

- 1. Securitization reduces (dis) intermediation costs, which results in lower funding costs for borrowers and higher risk-adjusted returns for investors.
- 2. Investors have stronger legal claims on securitized assets.
- 3. Improvement in liquidity.
- 4. Lenders/banks can increase lending capacity.
- 5. Enables tailored investments, fitting investor preferences.
- 6. Offers risk reduction and diversification over single loans.

Securitization often starts with the creation of a special purpose vehicle (SPV) to create a separate legal entity and to isolate risks and offer protection against eventual bankruptcy proceedings. In this case, an SPV serves to isolate cashflows related to the collateral within a closed ecosystem, allowing investors to focus on the underlying cash flows and attributes of the collateral (see Fig. 6).

### Figure 6: Securitization process



Source: UBS

The process of securitizing cash flows typically looks like this:

- 1. A loan originator and a borrowing party agree on a loan. For example, a car loan provider agrees on a loan to a consumer buying a car.
- 2. The loan is then purchased by a specialty finance manager and aggregated with other similar loans
- 3. The loans are structured, securitized and "warehoused" in an SPV with revolving credit lines.
- 4. Loans are then syndicated and priced according to ratings, and pre-sold to investors.
- 5. Finally, the pooled loans are then sold, for example as securities backed by car loans, to for example asset managers or insurance companies.

Lenders and capital owners can opt for securitization to help them focus on their main activities. The following participants benefit from this:

- Lenders who specialize in credit origination, lending and servicing to creditworthy borrowers. Securitization is less capital intensive for them compared to keeping loans on the balance sheet. There is also the potential for additional profits if loans are sold above par.
- Investors could gain access to forms of lending that were otherwise considered less investible and could see additional diversification in fixed income portfolios. They would also benefit from potentially higher yields than comparable securities with the potential advantages of relatively predictable cash flows, diversification, and increased liquidity.
- *Borrowers* potentially experience better credit terms and gain access to more innovative financial products as originators are less capital intensive.
- The broader financial system could benefit from a lower cost of capital through price discovery for credit risk, specialization between originators and capital owners, and see more efficient loan resolution

### III. How does ABF differ from direct lending?

A key question that arises when discussing ABF is how this investment opportunity differs from private credit segments that investors may be more familiar with, like direct lending. The main differences can be found in the borrower type, sector exposure, and cash flows, allowing investors to diversify from typical private credit exposures in portfolios.

### Table 2: How ABF differs from Direct lending

	ABF	Direct lending	
Sector	Multi-sector	Corporate	
Borrower type	- Consumers	Corporate borrowers, often PE-backed	
	- Corporate borrowers		
	- CRE operators		
	- Home owners		
Capital structure	Mainly senior secured	Mainly senior secured	
Credit rating	Mixed, rated and unrated	Unrated	
Rate structure	Floating and fixed	Floating	
Maturity	Short (1-5 years)	3-5 years	
Cashflow	Mixed: front and back-ended	back-end	
Yield structure	Floating: SOFR+ spread + OID. For others, spread	SOFR + spread + OID	

Source: UBS

### IV. Sustainable investing in ABF

ABF is also increasingly a topic for sustainable investors, where we see underlying assets and the structure and originator as key considerations. Underlying assets can include (but are not limited to) commercial properties which support social/environmental outcomes (e.g. hospitals or education institutions); ABS that provide capital to companies that produce products with a sustainability thesis (e.g. renewable power or electric vehicles); and agency MBS that reach underserved populations. Sustainable ABF strategies are most likely to appear as a subset of a core sustainable fixed income strategy, as part of a thematic diversified strategy that includes labeled bonds, or as a standalone approach. Please refer to "Sustainable agency MBS and securitized products", published on 14 July 2023, for more insights on sustainable issuance in securitized products, reporting, and its proportion in portfolios.

### Appendix

UBS Chief Investment Office's ("CIO") investment views are prepared and published by the Global Wealth Management business of UBS Switzerland AG (regulated by FINMA in Switzerland) or its affiliates ("UBS"), part of UBS Group AG ("UBS Group"). UBS Group includes Credit Suisse AG, its subsidiaries, branches and affiliates. Additional disclaimer relevant to Credit Suisse Wealth Management follows at the end of this section. The investment views have been prepared in accordance with legal requirements designed to promote the independence of investment research. Generic investment research – Risk information:

This publication is for your information only and is not intended as an offer, or a solicitation of an offer, to buy or sell any investment or other specific product. The analysis contained herein does not constitute a personal recommendation or take into account the particular investment objectives, investment strategies, financial situation and needs of any specific recipient. It is based on numerous assumptions. Different assumptions could result in materially different results. Certain services and products are subject to legal restrictions and cannot be offered worldwide on an unrestricted basis and/or may not be eligible for sale to all investors. All information and opinions expressed in this document were obtained from sources believed to be reliable and in good faith, but no representation or warranty, express or implied, is made as to its accuracy or completeness (other than disclosures relating to UBS). All information and opinions as well as any forecasts, estimates and market prices indicated are current as of the date of this report, and are subject to change without notice. Opinions expressed herein may differ or be contrary to those expressed by other business areas or divisions of UBS as a result of using different assumptions and/or criteria.

In no circumstances may this document or any of the information (including any forecast, value, index or other calculated amount ("Values")) be used for any of the following purposes (i) valuation or accounting purposes; (ii) to determine the amounts due or payable, the price or the value of any financial instrument or financial contract; or (iii) to measure the performance of any financial instrument including, without limitation, for the purpose of tracking the return or performance of any Value or of defining the asset allocation of portfolio or of computing performance fees. By receiving this document and the information you will be deemed to represent and warrant to UBS that you will not use this document or otherwise rely on any of the information for any of the above purposes. UBS and any of its directors or employees may be entitled at any time to hold long or short positions in investment instruments referred to herein, carry out transactions involving relevant investment instruments in the capacity of principal or agent, or provide any other services or have officers, who serve as directors, either to/for the issuer, the investment instrument itself or to/for any company commercially or financially affiliated to such issuers. At any time, investment decisions (including whether to buy, sell or hold securities) made by UBS and its employees may differ from or be contrary to the opinions expressed in UBS research publications. Some investments may not be readily realizable since the market in the securities is illiquid and therefore valuing the investment and identifying the risk to which you are exposed may be difficult to quantify. UBS relies on information barriers to control the flow of information contained in one or more areas within UBS, into other areas, units, divisions or affiliates of UBS. Futures and options trading is not suitable for every investor as there is a substantial risk of loss, and losses in excess of an initial investment may occur. Past performance of an investment is no guarantee for its future performance. Additional information will be made available upon request. Some investments may be subject to sudden and large falls in value and on realization you may receive back less than you invested or may be required to pay more. Changes in foreign exchange rates may have an adverse effect on the price, value or income of an investment. The analyst(s) responsible for the preparation of this report may interact with trading desk personnel, sales personnel and other constituencies for the purpose of gathering, synthesizing and interpreting market information.

Different areas, groups, and personnel within UBS Group may produce and distribute separate research products **independently of each other**. For example, research publications from **CIO** are produced by UBS Global Wealth Management. **UBS Global Research** is produced by UBS Investment Bank. **Research methodologies and rating systems of each separate research organization may differ**, for example, in terms of investment recommendations, investment horizon, model assumptions, and valuation methods. As a consequence, except for certain economic forecasts (for which UBS CIO and UBS Global Research may collaborate), investment recommendations, ratings, price targets, and valuations provided by each of the separate research organizations may be different, or inconsistent. You should refer to each relevant research product for the details as to their methodologies and rating system. Not all clients may have access to all products from every organization. Each research product is subject to the policies and procedures of the organization that produces it.

The compensation of the analyst(s) who prepared this report is determined exclusively by research management and senior management (not including investment banking). Analyst compensation is not based on investment banking, sales and trading or principal trading revenues, however, compensation may relate to the revenues of UBS Group as a whole, of which investment banking, sales and trading and principal trading are a part. Tax treatment depends on the individual circumstances and may be subject to change in the future. UBS does not provide legal or tax advice and makes no representations as to the tax treatment of assets or the investment returns thereon both in general or with reference to specific client's circumstances and needs. We are of necessity unable to take into account the particular investment objectives, financial situation and needs of our individual clients and we would recommend that you take financial and/or tax advice as to the implications (including tax) of investing in any of the products mentioned herein.

This material may not be reproduced or copies circulated without prior authority of UBS. Unless otherwise agreed in writing UBS expressly prohibits the distribution and transfer of this material to third parties for any reason. UBS accepts no liability whatsoever for any claims or lawsuits from any third parties arising from the use or distribution of this material. This report is for distribution only under such circumstances as may be permitted by applicable law. For information on the ways in which CIO manages conflicts and maintains independence of its investment views and publication offering, and research and rating methodologies, please visit www.ubs.com/research-methodology. Additional information on the relevant authors of this publication and other CIO publication(s) referenced in this report; and copies of any past reports on this topic; are available upon request from your client advisor.

Important Information About Sustainable Investing Strategies: Sustainable investing strategies aim to consider and incorporate environmental, social and governance (ESG) factors into investment process and portfolio construction. Strategies across geographies approach ESG analysis and incorporate the findings in a variety of ways. Incorporating ESG factors or Sustainable Investing considerations may inhibit UBS's ability to participate in or to advise on certain investment opportunities that otherwise would be consistent with the Client's investment objectives. The returns on a portfolio incorporating ESG factors or Sustainable Investing may be lower or higher than portfolios where ESG factors, exclusions, or other sustainability issues are not considered by UBS, and the investment opportunities available to such portfolios may differ.

External Asset Managers / External Financial Consultants: In case this research or publication is provided to an External Asset Manager or an External Financial Consultant, UBS expressly prohibits that it is redistributed by the External Asset Manager or the External Financial Consultant and is made available to their clients and/or third parties.

USA: This document is not intended for distribution into the US and / or to US persons.

For country information, please visit ubs.com/cio-country-disclaimer-gr or ask your client advisor for the full disclaimer.

Additional Disclaimer relevant to Credit Suisse Wealth Management

You receive this document in your capacity as a client of Credit Suisse Wealth Management. Your personal data will be processed in accordance with the Credit Suisse privacy statement accessible at your domicile through the official Credit Suisse website <u>https://www.credit-suisse.com</u>. In order to provide you with marketing materials concerning our products and services, UBS Group AG and its subsidiaries may process your basic personal data (i.e. contact details such as name, e-mail address) until you notify us that you no longer wish to receive them. You can optout from receiving these materials at any time by informing your Relationship Manager.

Except as otherwise specified herein and/or depending on the local Credit Suisse entity from which you are receiving this report, this report is distributed by Credit Suisse AG, authorised and regulated by the Swiss Financial Market Supervisory Authority (FINMA). Credit Suisse AG is a UBS Group company.

Version A/2024. CIO82652744

© UBS 2024. The key symbol and UBS are among the registered and unregistered trademarks of UBS. All rights reserved.