

OVERVIEW OF FINANCIAL INSTRUMENTS AND PRODUCTS AND THEIR INHERENT RISKS



BNP PARIBAS
WEALTH MANAGEMENT

The bank
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world

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OVERVIEW OF THE CATEGORIES OF RISK INHERENT IN FINANCIAL INSTRUMENTS AND PRODUCTS

Pursuant to the Markets in Financial Instruments Directive 2004/39/EC (MiFID), which entered into force on 1 November 2007 and was repealed and replaced by Directive 2014/65/EU on markets in financial instruments (MiFID II), which entered into force on 3 January 2018, BGL BNP Paribas has written this description of investment instruments and products which enables you to assess the main characteristics and risks inherent in investing in certain categories of financial products and instruments.

First, the recommended investment universe and the investment services

BGL BNP Paribas offers investment advisory and discretionary asset management services (on a non-independent basis) as well as the reception and transmission of orders (RTO), the conditions of which are outlined in the current prospectuses available on request from your advisor.

We offer our recommended investment universe as part of our investment advisory services. The following principles are used to select and monitor the financial instruments within our recommended investment universe: appropriate and documented selection and monitoring of financial instruments and issuers; analysis of the risks, complexity and cost of the financial instruments, as well as the profits they generate; and implementation of a personal recommendation process (excluding RTO).

The recommended universe may include financial instruments issued, placed or distributed by the Bank or other entities with close legal and economic ties to the Bank or the BNP Paribas Group, as well as the financial instruments of third parties.

The financial instruments

This description gives a general overview of the main types of risk you may encounter while investing in the different families of financial instruments or products (excluding foreign exchange (FX) spot, physical precious metals and physical real estate). It supplements various specific documents that are tailored to each family of financial instruments or products, entitled "Invest in..." and comprising three parts: Understand, Evaluate and Select. These documents are available from your advisor depending on your potential needs regarding financial knowledge.

Of course, all the risk elements mentioned should not obscure the numerous opportunities offered by the variety of available investment instruments and products to increase the value of your assets. Generally speaking, the relationship between risk (of loss or lack of profits) and expected return is an important concept to guide your choices and build a portfolio corresponding to your needs and investment objective.

We recommend that you carefully read the various documents on each family of investment products that is of relevance to you, so that you have the required information on each of them. In this way, we will be better able to support you in your investment decisions and advise you, while informing you as efficiently as possible.

The purpose of these documents is not to exhaustively cover all the categories of financial instruments or all the risks inherent in investing in said financial instruments.

It should be emphasised that a minimum investment duration which fits your personal investment horizon is assigned to most of the individually considered investment products. This is particularly true for products that have a maturity guarantee, even if they offer interim liquidity by allowing you to request a redemption with profit before maturity.

Furthermore, we would like to draw your attention to the fact that you must carry out your own analysis of the financial, legal, accounting, fiscal and regulatory aspects of each transaction in financial instruments to be able to determine its advantages and disadvantages, and to assess related risks over the entire investment period.

Finally, we would like to remind you that it is indispensable that you avoid concentrating your investments, and are committed to building a portfolio comprising a sufficiently large number of items and products. Portfolio diversification presents a good opportunity for risk mitigation in many market scenarios.



THE DIFFERENT CATEGORIES OF RISK

In order to familiarise yourself with a number of risks, you will find below the main risks inherent in investment instruments and products.

1 Foreign exchange risk

Where an investor buys or sells a currency, or instruments denominated in a currency other than the reference currency, in addition to the risks inherent in the transaction itself, an additional risk of gain or loss arises from movements in the exchange rate used in relation to the reference currency.

2 Risk of changes in net asset values or prices

The risk of changes in net asset values or prices exists in all financial markets. The price of a financial instrument is the result of the balance between supply and demand on the market. The price might be subject to unforeseen fluctuations involving risk of loss. Furthermore, the volatility historically displayed by a particular instrument may change over time, even without extreme conditions intervening.

Irrational factors, either market factors or factors specific to a particular security, taken individually, can affect overall movements in prices, for example trends, announcements, opinions or rumours that may lead to unforeseen but sudden and large reductions in price, even though the financial situation and prospects of the businesses that underlie the investment involved may not have changed unfavourably.

3 Interest rate risk

Movements in interest rates expose the fixed interest rate investor to the risk of loss of capital. Even if the issuer scrupulously respects the issue terms, just a rise in market interest rates can lead the investor to suffer a loss or miss out on profit. As a general rule, increases in interest rates tend to lower the price of those financial instruments that are sensitive to rates to a greater or lesser extent, such as fixed interest bonds and certain structured products, while a reduction in rates has the opposite effect.

4 Inflation risk

Inflation can lead to a loss in value of your investments and a reduction of purchasing power of the capital invested if the inflation rate exceeds the return yielded by the financial instruments.

5 Market liquidity risk

For the investor, liquidity means the opportunity to sell the financial instruments that they hold, at any time and at a satisfactory price. In the event of low or insufficient liquidity, the investor may have to sell at a much reduced price or even, in extreme cases, be unable to sell part or all of their financial assets at any given moment.



Lack of liquidity may arise from the interplay of supply and demand, from characteristics inherent in the financial instrument or from market practices. A contract for purchase or sale may then not be executed immediately and/or may be executed only partially (partial execution) and/or may be executed in unfavourable conditions. What is more, higher transaction costs are likely to apply.

6 Country risk and transfer risk

The political and economic climate in certain countries may become unstable, causing significant or rapid changes in prices. For example, a foreign debtor may default, it may become difficult or impossible to convert a currency, assets may be frozen, or rights may be restricted. In principle, there is no way to protect against such risks, although country ratings published in the financial press may be of use to investors in this respect.

7 Risk associated with the solvency of the issuer or counterparty

Default by the counterparty or the issuer of financial instruments for a financial transaction (or of the settlement/clearing system on which the instruments are traded) can lead to the investor losing all or part of the funds invested. The investor must therefore take into consideration the quality of the issuer of the product in which they invest. The concept of rating (or credit scoring) should in this case very much be borne in mind in evaluating this risk, which is liable to change throughout duration to maturity, in particular for products with a long maturity.

8 Economic climate risk

Changes in the activity of a market economy always have repercussions on movements in prices of financial instruments and exchange rates. Prices fluctuate according to the cycle of phases of economic slowdown and recovery. The length and extent of the cycles of economic slowdown and recovery vary, as do their repercussions on the various sectors of the economy. Moreover, the economic cycle can vary from country to country.

9 Risk linked to the use of leverage

Leverage that may be attached to a product can have a significant amplifying effect both on the return and on the risk associated with the product.

10 Risk of finance through borrowing

The purchase of financial instruments by means of borrowing brings with it additional risk. On the one hand, additional guarantees (additional assets as collateral) may be required. On the other hand, the loss incurred when prices move adversely is liable to be higher than the initial investment. Fluctuations in prices of pledged financial instruments can therefore have a negative influence on the investor's ability to repay the loans.

It is clearly important to understand that the leveraging effect produced by buying financial instruments through the means of borrowing results in proportionately greater sensitivity to fluctuations in price, and therefore offers the prospect of higher gains, but also at the same time the risk of higher losses. The risk attaching to such purchases increases with the rate of leveraging.

11 Additional risks on emerging markets

Emerging markets are defined as the markets of countries with a medium or low income per capita according to the World Bank definition. These markets are in countries which may have a certain degree of political instability, and whose financial markets and economy are still in the process of growing. These markets may experience high volatility. In general, the risks listed above may be amplified in these markets.

12 Information risk

Information risk means the risk of making inopportune investment choices through lack of information, or through incomplete or inaccurate information. This may arise from the investor depending on unreliable sources, having a poor understanding of available information, or perhaps from failures in communication.

13 Operational risks

When placing an order, the investor must provide certain details needed for its execution to the Bank, such as the type of instrument, the type of order, the volume, the date of execution, etc. The more accurately the order is given, the lesser the risk of any transmission error.

15 Risk connected with transaction costs

BNP Paribas or other national or foreign financial intermediaries will be involved in the execution of an order, for example as brokers, in which case the fees and commissions of these entities will be charged to the investor. An investment becomes viable only after these costs have been covered.

16 Risks specific to certain products

Forward transactions or options can bring special risks and should be entered into with care by knowledgeable investors with a high risk tolerance. Furthermore, the investor must have sufficient liquid assets available to meet any margin call that may be made during the life of the product. Some products – private equity for example – involve a commitment from the outset for the investor to be able to produce funds at short notice throughout the term of the investment (several years) at pre-set times for capital calls, as the initial investment represents only a limited part of the total commitment. It is therefore important in this case that the investor makes such an investment only if they have available funds sufficient to meet all capital calls in full.

17 Risk related to the complexity of the product or model

It should be emphasised that a small number of products or instruments within certain of the broad families under consideration may have special complex characteristics as a counterpart to the expectation of a corresponding return. This complexity may arise from a combination of multiple risk factors inherent in certain sophisticated products, from their structure which may yield notably different returns according to market conditions and movements in their underlyings throughout the life of the product, or from the complexity of their legal structure. It is therefore advisable that investors should carefully analyse the characteristics of such products to make sure that they are really appropriate to their needs.

Investment decisions and the management strategy for certain managed financial products are based on quantitative models which may have given good results in the context of past market conditions, but which may not give the same results throughout the lifetime of the product.

18 Risk connected with the quality of product management

For investment products that are managed throughout their lifetime, particularly for products with a long maturity, the quality and consistency of the staff in charge of management must be considered as one of the major criteria in the selection of an investment product, particularly to avoid the risk of any deterioration in management when a key person leaves.

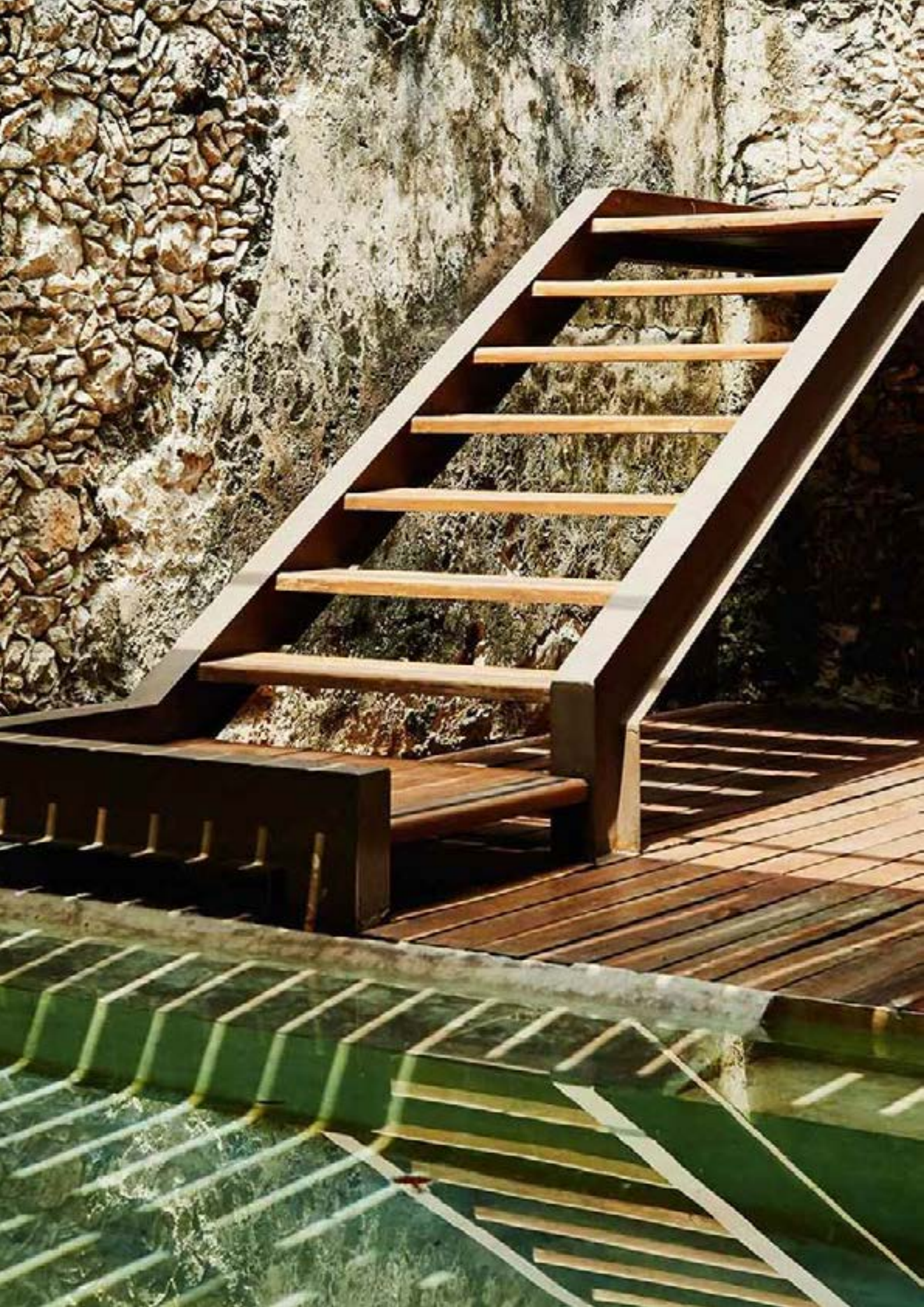
19 Sustainability Risk

An environmental, social or governance event or condition that, if it occurs, could cause an actual or a potential material negative impact on the value of the investment.

Unmanaged or unmitigated sustainability risks can impact the returns of financial products. For instance, should an environmental, social or governance event or condition occur, it could cause an actual or a potential material negative impact on the value of an investment. The occurrence of such event or condition may lead as well to the reshuffle of a sub-fund investment strategy, including the exclusion of securities of certain issuers. Specifically, the likely impact from sustainability risks can affect issuers via a range of mechanisms including:

- Lower revenue
- Higher costs
- Damage to, or impairment of, asset value
- Higher cost of capital and
- Fines or regulatory risks

Due to the nature of sustainability risks and specific topics such as climate change, the chance of sustainability risks impacting the returns of financial products is likely to increase over longer-term time horizons.



OVERVIEW ON SUSTAINABILITY-RELATED DISCLOSURES

Pursuant to Regulation (EU) 2019/2088 (SFDR), which applies from 10 March 2021, BGL BNP Paribas makes available to you information in particular in relation to its policies on sustainability risks and adverse sustainability impacts as well as information in relation to financial products.

BGL BNP Paribas statements about policies on the integration of sustainability risks and about consideration of the principal adverse impacts on sustainability factors in investment advice, and portfolio management activities and insurance advice.

1 General information

BNP Paribas Group's mission is to contribute to responsible and sustainable growth by financing the economy and advising clients according to high ethical standards. The Group's Corporate Social Responsibility (CSR) policy is one of the main components of this approach. In line with the United Nations' Sustainable Development Goals (SDGs), it is based on four pillars (economic, social, civic and environmental) that reflect its CSR challenges, as well as the Bank's concrete achievements.

In 2019, BNP Paribas Group has published its corporate purpose, a text which was endorsed by the BNP Paribas Executive Committee, based on three texts resulting from a work with many different employees. These include: the Shared Convictions (Mission and Vision), the Code of conduct and the Engagement Manifesto.

Moreover, BNP Paribas Group has been committed for many years by setting itself additional obligations in several sensitive sectors through:

- Financing and investment policies in the following sectors: agriculture, palm oil, defence, nuclear energy, paper pulp, coal energy, mining and non-conventional hydrocarbons... (for an updated list of policies, please see the page [Financing and investment policies](#));
- A list of excluded goods and activities such as tobacco, drift nets, the production of asbestos fibres, products containing PCBs (polychlorinated biphenyls), or the trading of any species regulated by the CITES convention (Convention on international trade in endangered species of wild fauna and flora) without the necessary authorisation;
- Restriction lists which define the level of monitoring and constraint applied to companies which do not fully meet the Group's CSR requirements;
- In line with the United Nations' SDGs, the Group actively participates in designing and implementing long-term social and environmental solutions within the framework of both the Principles for Responsible Investment (PRI) and the Principles for Responsible Banking (PRB).

2 BGL BNP Paribas statements about policies on the integration of sustainability risks in investment advice, portfolio management activities and insurance advice.

Pursuant to Regulation (EU) 2019/2088 (SFDR) article 3, which applies from 10 March 2021, BGL BNP Paribas makes available to you information in relation to its policies on sustainability risks.

Sustainability risks means an environmental, social or governance (ESG) event or condition that, if it occurs, could cause actual or potential material negative impact on the value of the investment.

BGL BNP Paribas S.A, as financial advisor, and as financial market participant, takes into account sustainability risks when selecting or recommending financial instruments to its clients.¹

A long-term increase of these "outside-in" sustainability risks is to be expected, in particular due to climate change.

BGL BNP Paribas S.A. takes therefore, in addition to the risk/return analysis, as much as possible "outside-in" sustainability risk into account.

For this purpose, BGL BNP Paribas S.A. uses a BNP Paribas Wealth Management internal rating called Clover methodology. This internal rating is used to assess and compare the responsibility level and the sustainable risk of investment products.

This proprietary methodology is being deployed within the recommended investment universe. This score is shown on a scale from 0 to 10 which allows BGL BNP Paribas to identify as much as possible sustainability risks and integrate those risks in investment decisions or when advising clients on financial instruments or insurance products. More information on the methodology is available on our [website](#).

For securities and bonds within the BNP Paribas Wealth Management recommended investment universe, the "outside-in" sustainability risk analysis is being performed by BNP Paribas Asset Management. The higher the potential sustainability risk, the lower the BNP Paribas Asset Management ESG score, which in turn is being translated into the proprietary Clover methodology of BNP Paribas Wealth Management. With respect to investment products manufactured by other asset managers or product manufacturers, the analysts at BNP Paribas Wealth Management are responsible for analysing sustainability risks which are respected within the Clover Rating. The lower the Clover Rating, the higher the potential sustainability risk.

In addition, BGL BNP Paribas S.A. takes sustainability risks

¹ For insurance products distributed by BGL BNP Paribas, the sustainability risks and principal adverse sustainability impacts are taken into account by Cardif Lux Vie when designing these products. Please refer to Cardif Lux Vie statement.

into account, through the application of the relevant sector policies to securities, bonds and investment products fully manufactured by BNP Paribas S.A. and its subsidiaries. With respect to investment products manufactured by other asset managers or product manufacturers, the information on their sector policies is collected and taken into consideration through the proprietary Clover methodology of BNP Paribas Wealth Management.

The Clover methodology enables BGL BNP Paribas S.A., as a financial advisor and as a financial market participant, to identify investment products for which the occurrence of an event or situation, in the environmental, social or governance field, could have a real or potential negative impact on the value of these products.

However, investment products with a high level of sustainability risk can be invested or recommended to clients if they meet the client's other investment objectives, investor profile or diversification needs.

Finally, BGL BNP Paribas S.A. commits maintaining an open, constructive relationship with its external stakeholders (customers, suppliers, sustainable investors, etc.) to achieve three objectives: anticipate change in its business lines and improve products and services, optimise risk management, and have a positive impact on society.

3 information about BGL BNP Paribas policy as financial market participant on considering the principal adverse impacts on sustainability factors in investment advice, portfolio management activities and insurance advice

Pursuant to Regulation (EU) 2019/2088 (SFDR) article 4, which applies from 10 March 2021, BGL BNP Paribas makes available to you information in relation to its policies on adverse sustainability impacts.

Principal adverse impacts on sustainability factors refer to adverse impacts of investment decisions on sustainability factors that mean environmental, social and employee matters, respect for human rights, anti-corruption and anti-bribery matters.

3.1 Consideration of the principal adverse impacts on sustainability factors for portfolio management²

As financial market participant, BGL BNP Paribas takes into account the impact of the underlying investment on sustainability factors (environmental, social and employee matters, respect for human rights, anticorruption and anti-bribery matters).

BGL BNP Paribas considers principal adverse impacts in its portfolio management decisions through the approach detailed hereafter.

BGL BNP Paribas' approach on principal adverse impacts relies on a set of extra-financial data sources and analyses:

a.The BNP Paribas Group policies: they enable the BNP Paribas Group to coordinate investment actions in sensitive sectors, excluding a number of sectors or companies, see BNP Paribas [public sector policies](#) developed in cooperation with independent experts. On each sector, the BNP Paribas Group takes into consideration a set of mandatory requirements, of evaluation criteria and of good industry practices when they exist.

b.The BNP Paribas Asset Management issuers' ESG³ screening: Regarding bonds and equities, BNP Paribas Wealth Management relies on the BNP Paribas Asset Management information, sources and policies specifically designed towards sustainability. Regarding the selection process of issuers, the pillars of the [Global Sustainability Strategy](#) developed by BNP Paribas Asset Management enable to deploy a classification of issuers based on various sustainability factors:

- **The ESG assessment**, based on materiality, measurability, data quality and availability, focuses on a limited set of robust ESG metrics, among these sources:
 - **External providers:** organizations specializing in ESG data and research, as well as ESG and mainstream brokers.
 - **Internal qualitative research:** insights from BNP Paribas Asset Management's ESG analysts assessing ESG performance and reviewing provider data, based on direct contacts with issuers, academics, institutions, civil society research, issuer official publications,
 - **International institutions:** Eurostat, OECD, United Nations, Worldbank, International Energy Agency, World Health Organization.
- **The Stewardship Strategy** includes proactive engagement with corporate and other issuers, and engagement with public policy makers on [sustainability issues](#).
- **The Responsible Business Conduct policy** aims at avoiding reputational, regulatory risks; it fosters companies' compliance with fundamental rights, in the areas of human and labour rights, environment protection and anti-corruption, based on the 10 [United Nations Global Compact Principles](#).
- **The Forward-looking perspective** or the '3Es' measure the exposure to the three key issues being Energy transition, Environment and Equality.

Based on the data provided by BNP Paribas Group and

BNP Paribas Asset Management, BNP Paribas Wealth Management is able to:

- Exclude or select issuers (equities and bonds),
- Rate equities and bonds according to the internal proprietary clover methodology.

Based on the data provided by BNP Paribas Group,

² SFDR regulation article 4.1a, 4.2, 4.5a and SFDR Delegated regulation article 11

³ Environmental, Social and Governance

BNP Paribas Asset Management and BNP Paribas Wealth Management, BGL BNP Paribas is able to:

- **Identify equities and bonds** when possible, according to 'sustainability preferences' as defined by the MiFID delegated regulation⁴),
- **Consider and address PAI number 10** by relying on several international standards that BNP Paribas adheres to, in particular: The UN Global Compact principles and Organization for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises OECD which may lead to the exclusion of companies active in certain sectors. PAI number 10 is considered and addressed by BNP Paribas Asset Management [Responsible Business Conduct](#) which evaluates and excludes companies exposed to issuers who are in breach with UNGC Principles and/or OECD Multinational Enterprises guidelines.
- **Consider and address PAI number 14**, in particular: exposure to controversial weapons. The following controversial weapons conventions are taken into account to consider and address PAI number 14: Oslo Convention on Cluster Munitions (2008) and Ottawa Treaty on Landmines (1999), Biological and Toxin Weapons Convention (1972), Chemical Weapons Convention (1993). All investee companies involved in the manufacturing, or the selling of controversial weapons are excluded.

More information on the Clover methodology is available on our [website](#).

c. Analysis of asset management companies and recommended funds and ETFs⁵:

BNP Paribas Wealth Management gathers sustainability information from asset managers, based on a proprietary due diligence questionnaire:

- **Funds:** comprehensive questions covering 6 areas, either on the management company and/ or the fund regarding ESG practices and exclusions, voting and engagement policies, transparency, sustainability of the asset management company, sustainable thematic, impact,
- **ETFs:** questions covering the 6 above mentioned areas,
- **Open-ended Alternative Investment Funds:** comprehensive questions covering 7 areas.

BNP Paribas Wealth Management looks at the percentage of available universe excluded based on ESG considerations, i.e., sector-based exclusions, norm-based exclusions, activity-based exclusions and worst ESG ratings among peers. Due diligences also identify the way ESG controversies are taken into account during the fund investment process.

BNP Paribas Wealth Management relies on the set of data provided by the asset manufacturers on the financial product ESG characteristics according to the European ESG template (EET format defined by Findatex), i.e.:

- **Data on taxonomy aligned investment** within the financial instrument (percentage of alignment, based on the E.U. Taxonomy Regulation),
- **Data on sustainable investment** within the financial instrument (percentage of sustainable investment, based on the SFDR regulation), and
- **Data** on mandatory Principle Adverse Indicators.

Thanks to this double level of analysis when selecting funds and ETFs, BGL BNP Paribas is in a position to:

- **Select** asset managers, funds and ETFs;
- **Classify**, when possible, funds and ETFs according to MIFID definition of 'sustainability preferences'⁶.
- **Consider and address PAI number 10** by relying on several international standards that BNP Paribas adheres to, in particular: UN Global Compact principles and Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises. For this purpose, BNP Paribas Wealth Management reviews European ESG Templates (EET) and the precontractual documents within the sales prospectus provided by Asset Management companies to ensure PAI number 10 is considered. In case of non-consideration BNP Paribas Wealth Management takes steps to mitigate risk and/or minimize exposure on PAI number 10 violation.
- **Consider and address PAI number 14**, in particular: exposure to controversial weapons (anti-personnel mines, cluster munitions, chemical weapons and biological weapons). For this purpose, BNP Paribas Wealth Management reviews European ESG Templates (EET) and the precontractual documents within the sales prospectus provided by Asset Management companies to ensure PAI number 14 is considered. In case of a non-consideration or an exposure the financial product will be excluded.

For the avoidance of doubt, BGL BNP Paribas does not at this stage consider on derivative instruments and on Article 6 SFDR financial products the principal adverse impacts on sustainability factors.

On an annual basis, the statement of BGL BNP Paribas on the Principal Adverse Impacts of investment decisions on sustainability factors will be published on its website.

3.2 Consideration of the principal adverse impacts on sustainability factors in investment advice⁷

BNP Paribas S.A. sustainability classification and selection of the financial instruments:

The classification and the selection of financial instruments regarding principal adverse impacts rely on various methodological approaches according to the type of financial instrument:

⁴ Article 2(7) MiFID Delegated Regulation 2017/565
⁵ Exchange-Traded Fund

⁶ Article 2(7) MiFID Delegated Regulation 2017/565
⁷ SFDR Delegated regulation art.11

a.Funds and structured products: based on the principal adverse indicators (PAI⁸) published by the asset managers or by the manufacturers of structured notes: a financial instrument is considered as taking into account the E, S or G category of PAI) if one at least of the mandatory PAI of the E, S or G category is taken into account.

b.Equities and bonds: based on the data feed of BNP Paribas Asset Management, the sustainability of the instruments is rated taking into account the ESG criteria of the activity and practice of the company, as well as the ESG criteria of the sector it operates in. In its proprietary ESG scoring framework, BNP Paribas Asset Management takes into account the mandatory PAI, cf. Appendix 1 of the SFDR Disclosure Statement of BNP Paribas Asset Management detailing for each PAI how it is embedded within the scoring methodology.

The analysis realised by BGL BNP Paribas as financial advisor, allows the classification, when possible, of financial instruments according to MIFID definition of 'sustainability preferences'⁹.

BGL BNP Paribas, when providing investment advice on equities and bonds, consider and address the following principal adverse impacts when advising on sustainability factors:

- **PAI number 10** by relying on several international standards that BNP Paribas adheres to, in particular: The UN Global Compact principles and Organization for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises OECD Principles for Multinational enterprises which may lead to the exclusion of companies active in certain sectors. PAI number 10 is considered and addressed by BNP Paribas Asset Management Responsible Business Conduct which evaluates and excludes companies exposed to issuers who are in breach with UNGC Principles and/or OECD Multinational Enterprises guidelines.
- **PAI number 14**, in particular: exposure to controversial weapons. The following controversial weapons conventions are taken into account to consider and address PAI number 14: Oslo Convention on Cluster Munitions (2008) and Ottawa Treaty on Landmines (1999), Biological and Toxin Weapons Convention (1972), Chemical Weapons Convention (1993). All investee companies involved in the manufacturing, or the selling of controversial weapons are excluded.

BGL BNP Paribas, when providing investment advice on funds and ETFs of third-party asset management companies, considers and addresses the following PAI:

- **PAI number 10**, for the part of clients' portfolios with sustainability preferences according to MiFID II, by relying on several international standards that BNP Paribas adheres to, in particular: UN Global Compact principles and Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises. For this purpose, BNP Paribas Wealth Management reviews European ESG Templates (EET) and the precontractual documents within the sales prospectus provided by Asset Management

companies to ensure PAI number 10 is considered. In case of non-consideration BNP Paribas Wealth Management takes steps to mitigate risk and/or minimize exposure on PAI number 10 violation.

- **PAI number 14** for the part of clients' portfolios with sustainability preferences according to MiFID II, in particular: exposure to controversial weapons (anti-personnel mines, cluster munitions, chemical weapons and biological weapons). For this purpose, BNP Paribas Wealth Management reviews European ESG Templates (EET) and the precontractual documents within the sales prospectus provided by Asset Management companies to ensure PAI number 14 is considered. In case of a non-consideration or an exposure the financial product will be excluded..

For the avoidance of doubt, BGL BNP Paribas does not at this stage consider on derivative instruments and on Article 6 SFDR financial products¹¹ the principal adverse impacts on sustainability factors.

For Reception and Transmission of Orders (RTO) the client does not receive any advice and no investment recommendations. In this case BGL BNP Paribas does not consider the above-mentioned PAIs

3.3 Consideration of the principal adverse impacts on sustainability factors in insurance advice¹⁰

Cardif Lux Vie is the manufacturer of the life insurance contracts which are subject to SFDR disclosure requirements. For Insurance-Based Investment Products (IBIP), BGL BNP Paribas acts as the insurance agency for Cardif Lux Vie. For Cardif Lux Vie, manufacturer of life insurance contract distributed by BGL BNP Paribas, you can refer to their SFDR statement, on their website, [SFDR \(cardifluxvie.com\)](https://www.cardifluxvie.com), in the section "Our responsibility – SFDR Report".

BGL BNP Paribas as financial adviser relies on the information provided by insurance companies on the general fund and on the underlying options as per SFDR classification to take into consideration PAI.

The classification and the selection of the underlying options regarding Principal Adverse Impacts is based on:

- **For underlying options based on funds, ETFs¹¹, structured products:** The Principle Adverse Sustainable Indicators provided by the manufacturer to BNP Paribas, an underlying option being considered as taking into account the E, S or G category of Principle Adverse Indicators (PAI¹²) if one at least of the mandatory PAI of the E, S or G category is taken into account.
- **For underlying options based on equities and bonds:** The methodology relying on the data feed of BNP Paribas Asset Management, rates the sustainability of the instruments, taking into account the ESG criteria of the activity and practice of the company, as well as the ESG criteria of the sector it operates in. In its proprietary ESG scoring

⁸ PAI being listed in table 1 of Appendix 1 of SFDR RTS.

⁹ Article 2(7) MIFID Delegated Regulation 2017/565

¹⁰ SFDR Delegated regulation art.11

¹¹ ETFs and external funds

¹² PAI being listed in table 1 of Appendix 1 of SFDR RTS.

framework, BNP Paribas Asset Management takes into account the mandatory PAI, cf. Appendix 1 Mandatory corporate indicator of the [Sustainability risk integration and PAI considerations](#) document detailing for each PAI how it is embedded within the scoring methodology.

The analysis realised by BGL BNP Paribas as insurance advisor, allows the classification, when possible, of underlying options according to IDD definition of sustainability preferences”.

4 Information about the integration of sustainability risks into remuneration policies of BGL BNP Paribas

Pursuant to Regulation (EU) 2019/2088 (SFDR), article 5, which applies from 10 March 2021, BGL BNP Paribas makes available to you information about the integration of sustainability risks into remuneration policies

BGL BNP Paribas’ societal commitment involves promoting sustainability and limiting sustainability risks.

To promote employee involvement in its subjects, BGL BNP Paribas has for several years integrated sustainability risks into its compensation policies, in line with the BNP Paribas Groups policies, which integrates sustainability risks in particular through CSR indicators representative of the four pillars of the Group’s policy and impacting in part the annual variable compensation of Group managers or the long-term compensation of key employees.

Moreover, the BNP Paribas Group’s remuneration principles requires that the variable compensation applied by BGL BNP Paribas does not lead to take excessive sustainability risks through the investments and investment advice given to its clients on financial products governed by the European SFDR regulation.

These elements must be taken into account for the persons concerned in the annual performance appraisal process.

At the same time, BGL BNP Paribas’ compensation policy aims to promote professional behaviour in line with the principles set out in the BNP Paribas Group’s Code of Conduct, any breach of these principles being taken into account in the assessment of individual performance for all employees, and in particular for its regulated populations.

This Code sets out the Group’s rules and requirements to support its aspirations to contribute to responsible and sustainable global development and to have a positive impact on society at large.

This involvement rests on three pillars: (i) promoting respect for human rights, (ii) protecting the environment and combating climate change, and (iii) acting responsibly in public representation.

5 Classification of financial products under mandate

5.1 Mandates without promotion of environmental or social characteristics (SFDR“ARTICLE 6”)

■ Crystal mandates’ strategies investing in a combination of the following 18 PMS sub-funds:

- PMS Bonds EUR
- PMS Bonds USD
- PMS Yield Opportunity EUR
- PMS Conservative EUR
- PMS Conservative USD
- PMS Flexible 30 EUR
- PMS Alti-Select EUR
- PMS Alti-Select USD
- PMS Balanced EUR
- PMS Balanced USD
- PMS Flexible 60 EUR
- PMS Dynamic EUR
- PMS Flexible 100 EUR
- PMS Equity Premium EUR
- PMS Equity Premium USD
- PMS Conservative Harmony EUR¹³
- PMS Balanced Harmony EUR¹³
- PMS Dynamic Harmony EUR Plus¹³

■ Classic Profiled Mandates (Classic & Funds)

- Bonds
- Conservative
- Balanced
- Dynamic
- Equities

■ Flexible Mandate:

- Flexible 100

■ Smart Asset Allocation mandates:

- Smart Asset Allocation 10
- Smart Asset Allocation 20
- Smart Asset Allocation 30
- Smart Asset Allocation 45
- Smart Asset Allocation 55
- Smart Asset Allocation 65
- Smart Asset Allocation 80

■ Smart Global Income mandates:

- Smart Global Income 1
- Smart Global Income 2
- Smart Global Income 3
- Smart Global Income 4

■ Smart Fixed Income mandates:

- Smart Fixed Income Core
- Smart Fixed Income Higher Income

The investments underlying these mandates products do not take into account the EU criteria for environmentally sustainable economic activities.

¹³ While the Crystal mandate neither promotes environmental and/or social characteristics nor has a sustainable investment as objective, it may include strategies in PMS sub-funds promoting environmental and/or social characteristics or/and having a sustainable investment objective.

When selecting investment products, BGL BNP Paribas explicitly takes into account the exclusion of certain activities (see sector policies above), and implicitly considers sustainability risks via the regular risk-return assessment of each covered product.

For its whole offering of products and services, whether sustainable or not, BGL BNP Paribas is aiming to have a sustainability rating of its whole selection universe with BNP Paribas Wealth Management's proprietary methodology (see WM sustainable rating methodology). This enables BGL BNP Paribas, as a financial market participant, to assess the level of environmental, social and governance risks from its investments as unmanaged or unmitigated sustainability risks can impact the returns of financial products.

For instance, should an environmental, social or governance event occur, it could cause a material negative impact on the value of an investment. The occurrence of such event may lead to the reshuffle of the portfolio strategy, including the exclusion of securities of certain issuers. In addition, the likely impact from sustainability risks can affect issuers via a range of mechanisms including:

- lower revenue;
- higher costs;
- damage to, or impairment of, asset value;
- higher cost of capital; and
- fines or regulatory risks.

Due to the nature of sustainability risks and specific topics such as climate change, the chance of sustainability risks affecting the returns of financial products is likely to increase over longer-term time horizons.

BGL BNP Paribas integrates this risk assessment explicitly in its product selection process, next to the standard risk return assessment. For equivalent financial risk-return products, priority is given to the best ESG players.

Information on sector policies and BNP Paribas Wealth Management sustainable rating methodology is available on the website: [Sustainability-related disclosures | BGL BNP Paribas](#).

5.2 Mandates with promotion of environmental or social characteristics (SFDR "ARTICLE 8"):

■ Classic Profiled Funds Harmony Mandates:

- Conservative Funds Harmony
- Balanced Funds Harmony
- Dynamic Funds Harmony

The Harmony mandates do not have a sustainable investment as their objective however they integrate ESG characteristics. Therefore, equity, bond and alternative funds in which the mandates are invested will be chosen mostly according to the evaluation of the way they take into account the Environmental, Social and Governance (ESG) criteria.

While these Harmony mandates promote environmental characteristics within the meaning of Article 8 of the SFDR,

they do not currently commit to investing in any "sustainable investment" within the meaning of the SFDR or the Regulation (EU) 2020/852 (Taxonomy) on the establishment of a framework to facilitate sustainable investment ("Taxonomy Regulation"). Accordingly, it should be noted that these Responsible mandates do not take into account the EU criteria for environmentally sustainable economic activities within the meaning of the Taxonomy Regulation and their portfolio alignment with such Taxonomy Regulation is not calculated. Therefore, the "do not significant harm" principle in relation to the Taxonomy Regulation, does not apply to any of the investments of these Harmony mandates.

The three Harmony mandates (Conservative, Balanced and Dynamic) were awarded the Lux FLAG ESG Discretionary Mandate Label (valid for one year with conditional renewal) in January 2023 and January 2024.

When selecting investment products, BGL BNP Paribas explicitly takes into account the exclusion of certain activities (see sector policies), and implicitly considers sustainability risks via the regular risk-return assessment of each covered product.

For its whole offering of products and services, whether responsible or not, BGL BNP Paribas is aiming to have a ESG rating of its whole selection universe with BNP Paribas Wealth Management's proprietary methodology (see WM ESG rating methodology). This enables BGL BNP Paribas, as a financial market participant, to assess the level of environmental, social and governance risks from its investments as unmanaged or unmitigated sustainability risks can impact the returns of financial products.

For instance, should an environmental, social or governance event occur, it could cause a material negative impact on the value of an investment. The occurrence of such event may lead to the reshuffle of the portfolio strategy, including the exclusion of securities of certain issuers. In addition, the likely impact from sustainability risks can affect issuers via a range of mechanisms including:

- lower revenue;
- higher costs;
- damage to, or impairment of, asset value;
- higher cost of capital; and
- fines or regulatory risks.

Due to the nature of sustainability risks and specific topics such as climate change, the chance of sustainability risks affecting the returns of financial products is likely to increase over longer-term time horizons.

For its Harmony offering, BGL BNP Paribas integrates this risk assessment explicitly in its product selection process, next to the standard risk return assessment. For equivalent financial risk-return products, priority is given to the best ESG integration. In addition, the Harmony mandate promotes ESG criteria and as such selection is mainly performed among financial instruments having at least 5 clovers. The Harmony mandate targets a minimum weighted scoring

average of 5 clovers (ex-cash).

Information on sector policies and BNP Paribas Wealth Management ESG rating methodology is available on the website: [Sustainability-related disclosures | BGL BNP Paribas](#).

5.3 Mandates with promotion of environmental or social characteristics and a pocket of sustainable investments (SFDR “ARTICLE 8 with a sustainable investment portion”):

■ Mandats Classic Profiled

- Harmony Plus Conservative
- Harmony Plus Balanced
- Harmony Plus Dynamic
- Harmony Plus Equities

These mandates do not aim at sustainable investment but incorporates ESG characteristics. Therefore, the equity, bond and alternative funds in which it is invested will be selected primarily on the basis of an assessment of how they take into account Environmental, Social and Governance (ESG) criteria in their investment process.

These mandates only invest in BNP Paribas Asset Management’s Article 9 or Article 8 UCITS with a sustainable investment component according to the SFDR Regulation.

They promote environmental and social characteristics by assessing the underlying investments against environmental, social and governance (ESG) criteria using BNP Paribas Wealth Management proprietary ESG methodology for funds and ETFs. Thanks to BNP Paribas Asset Management ESG scoring methodology for issuers, they also invest in issuers with superior or improving environmental and social practices, while implementing strong corporate governance practices in their industries.

In addition, BNP Paribas Asset Management seeks to promote better practices by implementing an active engagement policy with companies towards responsible practices (individual and collective engagement with companies, voting policy at general meetings).

These mandates aim to improve their ESG profile and reduce their carbon footprint, as measured by greenhouse gas emissions, relative to its reference benchmark.

The ESG performance of an issuer is assessed in the underlying funds against a combination of environmental, social and governance factors, which include but are not limited to:

- Environmental: global warming and greenhouse gas (GHG) emissions, energy efficiency, natural resource conservation, CO2 emission levels and energy intensity;
- Social: employment management and restructuring, accidents at work, training policy, remuneration, staff turnover and PISA (Programme for International Student Assessment) results

- Corporate governance: the independence of the board.

Exclusion criteria are applied to issuers that violate international standards and conventions or are active in sensitive sectors.

This assessment is carried out by BNPP AM’s Sustainability Center on the basis of internal analysis and information provided by external experts, and in consultation with the BNP Paribas Group CSR team. In the event of serious and repeated non-compliance with these principles, the issuer is placed on an “exclusion list” and is no longer eligible for investment.

Existing investments must be removed from the portfolio in accordance with an internal procedure. If an issuer is considered likely to breach any of the principles, it shall be placed on a “watch list”, where appropriate

The minimum proportion of investments aligned with the environmental and social characteristics promoted, aligned with E/S characteristics, by the mandates is 90%.

10% of these investments will be considered sustainable investments.

These mandates do not currently commit to investing in any sustainable investments as defined by the EU taxonomy. However, this position will be reviewed as the underlying rules are finalised and the availability of reliable data increases over time.

The Balanced Harmony Plus EUR mandate was awarded the LuxFLAG ESG Discretionary Mandate Label (valid for one year with conditional renewal) in January 2023 and January 2024. The Conservative Harmony Plus EUR mandate was awarded the LuxFLAG ESG Discretionary Mandate Label (valid for one year with conditional renewal) in January 2024.

5.4 Portfolio Management Solutions (PMS) SICAV

PMS has a majority of article 6 SFDR sub- funds.

The investments underlying these sub-funds do not take into account the EU criteria for environmentally sustainable economic activities.

PMS also has a minority of article 8 SFDR sub- funds.

There are 3 Article 8 sub-funds. The two PMS Harmony (Conservative and Balanced) do not have a sustainable investment as their objectives however they do integrate ESG characteristics. Therefore, equity, bond and alternative funds in which the sub-funds are invested will be chosen mostly according to the evaluation of the way they take into account the Environmental, Social and Governance (ESG) criteria in their investment process.

While PMS Conservative Harmony and PMS Balanced Harmony sub-funds promote environmental characteristics within the meaning of Article 8 of the SFDR, they do not currently commit to investing in any “sustainable investment” within the meaning of the SFDR or the Regulation (EU) 2020/852 (Taxonomy) on the establishment of a

framework to facilitate sustainable investment ("Taxonomy Regulation").

The PMS Dynamic Harmony Plus sub-fund commits to a portion of "sustainable investment" within the meaning of the SFDR.

Accordingly, it should be noted that these three sub-funds do not take into account the EU criteria for environmentally sustainable economic activities within the meaning of the Taxonomy Regulation and their portfolio alignment with such Taxonomy Regulation is not calculated. Therefore, the "do not significant harm" principle in relation to the Taxonomy Regulation, does not apply to any of the investments of these sub-funds.

It is only possible to subscribe to the PMS sub-funds via the Crystal DPM mandate.

The PMS Conservative Harmony Euro and PMS Balanced Harmony Euro sub-funds, which may be invested by the Crystal mandate, were awarded the LuxFLAG ESG Label in March 2022, March 2023, March 2024, and December 2024 ("valid for one year with conditional renewal").

The PMS Dynamic Harmony Plus Euro which may be invested by the Crystal mandate, was awarded the LuxFLAG ESG Label in March 2023, March 2024, and December 2024 ("valid for one year with conditional renewal").





INVESTING IN DEPOSITS AND MONEY MARKET INSTRUMENTS

1 | What are deposits and money market instruments and what are their main characteristics?

1.1 Term deposits

These are deposits made in a given currency and blocked for a fixed length of time defined in the deposit contract. Except in specific circumstances, the larger the sum invested and the longer the duration of the deposit, the more attractive the interest rate will be. The latter will vary according to the specific rates applicable to the currency deposited. You may request early withdrawal of the capital invested, but will generally be charged interest penalties.

1.2 Certificates of deposit

These are negotiable debt instruments issued by financial institutions corresponding to a deposit made in a given currency, with a bank or credit institution (for the purposes of comparison, commercial paper is a similar type of instrument, issued by companies looking for liquidity to finance their activity). Certificates of deposit can be issued for predefined minimum unit amounts, for a duration varying from one day to one year, the most common maturities being one to six months or a year. Interest may be paid on maturity or in advance (precomputed).

1.3 Other money market instruments

The short-term capital market (less than a year) offers other categories of financial instruments negotiable in the short/medium term. These vary by country but are most often issued by category, particularly by financial institutions and businesses, and are usually accessible to institutional investors.

These instruments are issued specifically for durations of a year or less, allowing investors to make short-term investments. These are known as negotiable debt securities, which generally include certificates of deposit, commercial paper, Treasury notes and medium-term negotiable bonds.

In practice, their names vary according to the issuing economic entity: Treasury bills for State issues, negotiable certificates of deposit for financial institutions, commercial paper for businesses.

Negotiable debt securities are also negotiable before their maturity date and interest tends to be paid directly on purchase (precomputed interest).

1.4 Money market UCITS

See page 28 in the chapter “Investing in an Undertaking for Collective Investment (UCI)”.

2 | Why invest in deposits and money market instruments?

The main advantage of these investments lies in their availability, their security (provided the issuer has a good rating), the visibility conferred by their short-term investment horizon, and their flexibility as a means of holding capital earmarked for other investments, meeting the investor's short-term investment requirements or contributing to balancing a diversified portfolio.

3 | What are the main risk components that should be considered when investing in the money markets?

3.1 Interest rate risk

This translates as a re-investment risk in that, if interest rates go down in the short term, investors will see a decrease in the return on their deposit and money market investments.

When a negotiable debt security is unwound before maturity, there is a risk of capital loss (e.g. if interest rates vary unfavourably), which can result in a reduction in the final return for the investor.

3.2 Risk associated with the solvency of the issuer or counterparty

These investments involve a risk in that their reliability is dependent on the continuing solvency of the depository institution (for deposits) or the issuer (for certificates of deposit or other negotiable financial instruments).

By choosing money market UCITS, this risk can be diversified. In this case, however, investors must analyse the fund's management objectives and portfolio components very carefully, as certain dynamic money market products may contain higher-risk investments.

3.3 Market liquidity risk

Excluding exceptional circumstances, this type of investment generally offers good liquidity (deposits can be withdrawn early, negotiable debt securities can be sold).

Money market UCIs generally allow day-to-day purchase or sale and therefore offer good liquidity unless exceptional circumstances arise.

3.4 Foreign exchange risk

By investing in deposits or money market funds in a currency other than your reference currency, you may benefit from a higher rate of return or a relative increase in the value of the currency in question, but in return you run the risk of a capital loss if the currency depreciates (relative to your reference currency).

3.5 Country risk and transfer risk

The political and economic climate in certain countries may become unstable, causing significant or rapid fluctuations in their currencies (making it impossible to exchange the currency in question) or restricting transfer rights for non-residents (exchange control policies, inconvertibility, etc.).

4 | What types of investor should invest in deposits and money market instruments?

This type of investment is aimed at:

- Either investors who prefer to protect their capital and/or the liquidity of their investments, rather than take advantage of the generally higher returns offered by medium- or long-term investments.
- Or investors wishing to maintain liquidity whilst awaiting other forms of investment, or with specific requirements (relatively short-term capital withdrawal).

Concerning money market UCIs, you should be aware of their specific characteristics when making your choice.

"Dynamic" money market UCIs are more risky than "classic" ones because they aim for higher returns and involve a longer-term investment horizon.

Taxation

It is important that you seek independent advice about the taxation applicable to deposits and money market instruments.

Your advisor is available to provide any further information you may require and will assist you in your choices, according to your personal needs and investment profile, before any investment decisions are made.



INVESTING IN BONDS

1 | What is a bond and what are its main characteristics?

1.1 Main characteristics

Public sector (States or supranational organisations) and private sector (companies, banks, specialised financial institutions) economic players have, in the main, access to various sources of finance: shareholders' funds, bank borrowing and the general public (stock market listings, bond issues).

In the specific case of bonds, private and institutional investors provide capital to the borrower in exchange for securities which are called bonds. In actual fact, the investor buys the bond straight off the market. A bond is therefore a security representing a debt receivable from a private or public body. It can be traded either on an organised market or over the counter (both bought and sold) and remunerates its holder with interest.

This interest is paid in the form of coupons, the dates of payment of which depend on local practice (yearly usually for bonds denominated in euro, half yearly or quarterly for those denominated in US dollars).

It may be fixed or variable, i.e. indexed to money market rates, inflation, 10-year rates etc. The advantage of fixed-rate bonds is that investors will know exactly, from the day of purchase, what the yield on their investment will be. However, this yield will be realised only if the bond is held to maturity.

A bond bears a defined nominal amount (e.g. EUR 1, EUR 1,000, EUR 50,000 or EUR 100,000) and duration. At maturity, the holder recovers the nominal amount of the bond and the final coupon (except if the issuer defaults in part or in full).

By way of an example, let us take a bond with a face value of EUR 1,000, a duration of seven years and a 4% annual coupon. On the same date each year over seven years, this will pay a EUR 40 coupon. At maturity, the investor will get back EUR 1,040 euros, which is the nominal value with the final coupon added to it.

Bonds with an initial or residual duration of over one year are traded on the bond market. Transactions can take place when the bond is issued (primary market) or during the life of the bond (secondary market). On the secondary market, unlike stock markets, there is no systematic quotation of prices: transactions take place over the counter. Many factors then enter into the equation, which may influence not only the price but also the liquidity of bonds.

1.2 Bases on which the prices of traditional issues are quoted

Conventionally, the price of a bond is defined as a percentage of its nominal value, which provides a standard method of quotation whatever the various nominal amounts may be (and as a result it is possible to compare, for example, the price of a EUR 50,000 nominal value bond with a EUR 5,000 one).

A EUR 50,000 nominal value bond quoted at 95% represents EUR 47,500 ($50,000 \times 95/100$).

At maturity, however, the amount redeemed is equal to 100% of the nominal amount if there has been no default on the part of the issuer.

The price quoted on the secondary market – for purchase or sale – may be more or less than 100% during the life of the bond, depending on rises or falls in market rates; it is also necessary to take into account the accrued interest in arriving at the value of a particular transaction. This means that the buyer routinely pays the seller of the bond the proportion of the coupon that has already been earned (i.e. the proportion of accrued interest). So, in the particular case of buying a bond whose annual coupon is about to be paid, the purchaser will have to pay the seller a very high amount of accrued interest, even if they are going to get back that amount very soon. They must therefore ensure that they have the necessary funds to pay the whole amount (price and accrued interest) of the transaction. Any transaction on the secondary market takes effect on a predetermined date (usually the execution date + three business days).

The coupon rate of a bond is defined when it is issued. It corresponds to the prevailing market risk-free rate (for the desired issuance duration) plus a yield pick-up depending on the degree of risk of the issuer at the time of issue. In addition to the coupon rate, it is possible at any time to calculate the yield to maturity of the bond, which allows different bonds to be compared, since market rates change as does the financial standing of the issuer. The actual yield on a bond at a given time can therefore be very different from its coupon rate.

The world of bonds is very broad and diversified, and so is the method of calculating their coupon, the currencies in which they are denominated, their geographical origin and the quality of their issuers. As a result, at any one time, large differences in yields can be observed for bonds of equivalent duration. It must be borne in mind that high yield (compared to that of an issuer of the very highest quality for an equivalent duration) corresponds to increased risk.

In fact, the lower the issuer risk, the lower the yield.

1.3 Different types of bond

The bond universe is also broad and diversified in respect of the types of bond issued. We can single out, among others, the following types of bond:

- **Fixed rate:** the coupon payable at each coupon date is fixed and known from the time of issue.
- **Floating rate:** the coupon is based on short-term rates (three-month rate) or on long-term rates (constant 10-year maturity rate); the latter are very sensitive to the yield spreads that exist between short-term and long-term rates at any given moment.
- **Inflation-linked:** these bonds are increasingly being issued by countries in the Eurozone. Both the capital and interest are indexed to inflation rates. Accordingly, the coupons are often fairly low. The price of these bonds is sensitive to movements in real interest rates, that is to say the market rates corresponding to the bond duration less a deduction for expected inflation. This makes them a very technical medium for investment and suitable only for knowledgeable investors.
- **Convertible bonds:** these bonds include an option for the investors to convert them, as and when they wish, into the issuer's shares according to a defined procedure (conversion price, quotas, etc.). The closer the price of the underlying asset to its exercise price, the more the price of the bond will change in line with that of the underlying asset. This is why, at a given time t , bonds with an equity profile, others with a fixed income profile and finally a third category of bonds with a mixed profile are defined on this market. It is a market with low levels of liquidity (very few new issues each year). It is better to approach this professionals' market via an undertaking for collective investment (UCI).
- **Hybrid bonds:** some bonds have characteristics that are common to both bonds and shares. Ones without a maturity date are called perpetual bonds. Nevertheless, some of them may be redeemable at the issuer's discretion as from some future date (e.g. the tenth year). This option is within the issuer's control and may never be used. Such securities are therefore suitable only for knowledgeable investors. Lastly, during a market crisis, the liquidity of these bonds can become very restricted.

2 | Why invest in bonds?

In a context where the markets are dominated by uncertainty, bonds are a form of investment that offer the specific advantage of providing both regular interest payments and the repayment of principal at maturity if the issuer does not default. However, certain precautions nevertheless need to be taken to ensure peace of mind with an investment of this kind: choosing issuers of the very highest quality, favouring bonds of a fairly short duration (three to seven years) so as not to have to sell them before maturity, considering only fixed rate bonds and ensuring real diversification within the portfolio so as to spread coupon payments throughout the year. With this conservative approach, bonds can usually be considered a relatively safe investment.

It is also essential to consider liquidity, even if there is no intention of selling the bonds before maturity: should the need arise, bonds with more than EUR 500 million or equivalent in issue are usually easier to sell. It should be pointed out that if they are sold before maturity, a capital loss may occur.

Other approaches consist of buying bonds which return higher yields, or even investing with a view to making capital gains (the price of a fixed rate bond rises when interest rates fall). This is entering the domain of speculators, and should be left to knowledgeable investors. Taking issuer risk into account is as necessary as taking interest rate risk into account.

A given market's default rate (issuer insolvency) is related to overall economic conditions and should be watched throughout the duration in parallel with movement in long-term rates connected with the global economic climate.

These two facets of the bond world, which is simultaneously secure and speculative, will be represented in portfolios to varying degrees according to the way in which the investor approached this market and according to the general economic and financial climate. Between these two extremes, various intermediate combinations are possible. Your advisor will be able to help you to make choices based on your objectives.

3 | What are the main risk components that should be considered when investing in bonds?

3.1 Interest rate risk

The price of a bond can move significantly from the time of its issue to maturity. This price variation is connected with movements in market interest rates. For an identical shift in rates, the movement in price will generally increase in proportion to the length of time left to run to the bond's maturity. This is an important constraint for anyone who wants to sell bonds before maturity, as they may make a capital loss if rates rise. Conversely, a knowledgeable investor who expects a drop in rates can make substantial gains if they are right. This risk is obviated if the investor keeps the bond to maturity, with the intention of receiving regular interest income. Nevertheless, it will show up in the valuation of the bonds in their portfolio in line with the rate of interest at any one time.

3.2 Risk associated with the solvency of the issuer or counterparty

A bond may not necessarily be redeemed at maturity. In the event of insolvency, bondholders rank after priority creditors (the State and employees). Interim coupons may also not be paid in the event of an issuer default.

Some subordinated bonds rank the investor after holders of traditional bonds: these are called Tier 1 or LT2, and are most often issued by banks. Although the investor has a lower rank, these bonds yield a higher coupon than traditional (senior) bonds.

Issuer insolvency (or default) is quite rare on the bond market, but it should not be overlooked, as the rate of default moves in line with the macroeconomic climate. Consequently, investors should find out about the quality of the issuer in which they are investing. There is an indicator that exists for this purpose: the rating (or credit score). This gives an idea of the level of risk involved in respect of most bond issuers. The main rating agencies are Standard & Poor's (S&P) and Moody's.

The list below ranks ratings in order of risk and also shows the equivalences between the different rating systems used by S&P and Moody's. Credit rating agencies may amend an issuer's rating during the life of the bond, in response to changes in its financial situation. As a general rule, a downgrading of the rating will cause a reduction in the price of the bond concerned, especially if it is a steep downgrading and the market is not expecting it.

For long-term borrowing, here is the risk table used by the rating agencies.

Moody's rating	S&P rating	Means	Category
Aaa	AAA	Highest quality , lowest risk.	Investment grade
Aa	AA	High quality . Very high capacity to honour financial commitments.	
A	A	Upper medium quality bonds . Good capacity to honour commitments.	
Baa	BBB	Medium quality . Satisfactory capacity to honour commitments.	
Ba	BB	Speculative . Uncertain capacity to honour commitments.	High yield
B	B	Low capacity to honour commitments.	
Caa	CCC	Poor quality . Danger as to payment of interest and redemption of the capital.	
Ca	CC	Highly speculative . Close to insolvency.	
	D	Default .	

WARNING: The meaning of the ratings is given for information purposes only. Situations may vary, including between securities within the same category.

A bond with a rating of less than BBB- is known as a high yield bond. The risk associated with these issuers is high, as are their coupon rates. Upward and downward variations in the price of these bonds can be sharp and fast. These speculative instruments are therefore reserved for investors who accept significant levels of risk. In such a case, investment in a high yield bond fund, managed by professionals who know how to measure and assess risk as well as how to choose issuers whose financial situation is likely to improve, is more suitable than a direct investment.



3.3 Country risk and transfer risk

Since 2011, on top of credit and interest rate risks, there has also been country risk, especially with the crisis in the Eurozone peripheries. In the past, country risk remained confined to certain emerging countries (prone to political risks, terrorism risks, etc.). In recent years, the sharp deterioration in the public finances of some Eurozone countries has led to a significant drop in their rating (for some into the high yield category), which has spread by contagion to the financial and non-financial corporate issuers in these same countries. This situation has taken the form of a sharp rise in bond yields and therefore a sharp decline in the bond prices of these issuers.

3.4 Market liquidity risk

We have already gone through the idea of liquidity in bonds. If these are resold on the secondary market, liquidity may be low or non-existent in certain cases (market conditions, type of securities). To avoid problems, it is essential to choose a quality issuer as well as to pay attention to the overall amount in issue, which should be equal to or more than EUR 500 million or the equivalent.

Finally, investors may be very disappointed with transactions handled on the primary bond market. For a start, the time between the issue being announced and its close may be too short for retail clients to obtain information and place an order to purchase. The transaction is therefore settled between institutional investors, who are readily able to mobilise huge amounts of capital (mutual fund managers, pension fund managers, etc.). Moreover, if a retail client places an order, it may be cut back, sometimes drastically, depending on whether the operation has been a success with investors. One alternative is to buy the bond on the secondary market.

3.5 Additional risk of investing in high yield bonds

In addition to the generic risks listed above, investments in high yield bonds are subject to risks such as:

Higher credit risk – Since they are typically rated below investment grade or are unrated and as such are often subject to a higher risk of issuer default. Vulnerability to economic cycles – During economic downturns, such bonds typically fall more in value than investment grade bonds as (i) investors become more risk averse and (ii) default risk rises.

3.6 Foreign exchange risk

This is the risk of capital loss due to the fluctuation of the currency in which the bond is denominated against the client's reference currency.

3.7 Additional risks on emerging markets

Emerging markets are defined as the markets of countries with a medium or low income per capita as defined by the World Bank. These markets are in countries which may have a certain degree of political instability, and whose financial markets and economy are still in the process of growing. These markets may experience high volatility. Generally speaking, the risks described above are accentuated on such markets.

3.8 Special features and risks

Furthermore, some bonds may contain special features and risks that warrant special attention. These include the following types of bond:

- **Perpetual** – When investing in perpetual bonds (i.e. with no maturity), investors should understand that the holdings can only be disposed of by sale. Holders who wish to sell their bonds may be unable to do so at a price equal to or above their purchase price, or at all, if insufficient liquidity exists in the market.

Meanwhile, the coupon payments may be deferred or even suspended subject to the terms and conditions of the issue. Furthermore, as perpetual bonds are often callable, investors should be aware of the reinvestment risk.

- **Subordinated** – In the event of an issuer liquidation, holders of these bonds are not priority creditors and therefore can get back the principal only after the senior creditors have been repaid.

- **Callable** – Investors are exposed to reinvestment risk when the issuer exercises its right to redeem these bonds ahead of maturity.

Deferred interest – These bonds make it possible to vary or defer interest payments, meaning that investors cannot be sure how much interest they will receive and when.

- **Extendible** – These bonds have extendible maturity dates and investors do not have a definite repayment schedule.

- **Convertible** – These bonds are convertible to or exchangeable for shares, meaning that investors are exposed to both bond and equity risk.

Contingent convertible (CoCo) – These bonds have a conditional write-down or loss absorption feature and may be written off fully or partially or converted to common stock on the occurrence of a trigger event or at the discretion of the relevant authority.

- **Loss absorption features** – Some bonds issued by financial institutions, though not classified as CoCos with explicit trigger events for loss absorption, may also have loss absorption features. If, in compliance with rules on the recovery and resolution of credit institutions and investment firms, the resolution authority has established the known or foreseeable bankruptcy of the issuer, it might decide to take measures affecting the value of its bonds (bail-in). In this context, the investor assumes the risk of losing all or part of the amount invested and the interest, or may be required to convert their securities into capital instruments (shares) at the discretion of the regulator.
- **Market disruption risk** – Markets may become disrupted. Local market disruptions can have a global effect. Market disruption can adversely affect the performance of the investment.

4 | What types of investor should invest in bonds?

The world of bonds is very broad and their behaviour may be affected by a wide array of factors. Contrary to widespread beliefs, bond management can be highly technical and require in-depth knowledge of the characteristics of each issue and the market environment.

Investments in bonds may therefore be of interest to investors with very different profiles, ranging from fairly risk averse to high risk.

Whatever the profile may be, it is very important:

- To ascertain the exact characteristics of the issue in which you want to invest.
- To diversify your portfolio's bond holdings in terms of weightings, issuer quality and time to maturity.
- To take into account your personal investment horizon and the issue currency.
- To take advice from your account manager if you decide to sell bonds before their maturity, and to analyse the movements in interest rates on the market since purchase (price movements) so you can determine whether you have made or lost money.
- To take into account the fees on bonds. Prior to investing in convertible bonds, the investor should carefully read the legal reference documents, namely the prospectus and the Key Investor Information Document (KIID). The latter provides you with standardised information on the main characteristics of the financial product. If a KIID has been published for your bond, your advisor will give you this document before every investment.

Generally, any stock market transaction involves:

- Dealing fees for each bond sale or purchase order, with a minimum dealing charge. The amount can vary according to how you place your order, the type of securities, their origin and the amount of your order.
- Custody fees for holding and managing your securities.

Taxation

It is important that you seek independent advice about the taxation applicable to bonds.

Your advisor is available to provide any further information you may require and will assist you in your choices, according to your personal needs and investment profile, before any investment decisions are made.



INVESTING IN EQUITIES

1 | What is a share and what are its main characteristics?

A share is a deed of ownership corresponding to a portion of a company's capital. By purchasing a share, you become a shareholder and therefore the owner of a portion of the business in which you have invested.

As a shareholder, you have a certain number of rights:

- The right to receive dividends: each shareholder has the right to a portion of the company's profits. Every year, at the company's annual general meeting, a decision may be made to distribute a part of the profits to the shareholders in the form of dividends. These dividends are generally paid annually but may also be paid quarterly or half-yearly as interim dividends. The AGM may also vote to reinvest the profits in order to finance the company's development. In this case, no dividend will be paid to the shareholders.
- The right to vote at ordinary and extraordinary general meetings.
- The right to be kept informed: this gives you access to certain information about the company. As a shareholder, the company is obliged to inform you about events which affect the business, in particular any changes in ownership (acquisitions, sales) and any significant events affecting its development prospects. The annual financial statements for the last three financial years, as well as the latest annual report, must also be made available to you.

The main types of share you can hold are:

- Bearer shares: the majority of shares are held in this way. The company does not know the identity of its shareholders. Only your financial intermediary knows that you are the shareholder; you have to keep yourself informed by reading the press or consulting the company's website.
- Registered shares: the company knows your identity, which will be recorded in its shareholder register. You will be informed directly and automatically by the company.

Shares represent a company's own equity capital (as opposed to borrowed capital), which the company does not reimburse (unlike bonds, for example) but may buy back.

If the company is liquidated, the shareholder has the right to a division of the company's assets, after the company's bond and bank creditors have been paid.

You should be aware of whether you are operating on a regulated market, which has specific protection measures, or over the counter.

Shares can be traded in either of these venues.

Stock exchanges are regulated by local market authorities. Among other things, these regulations govern:

- Transaction rules (e.g. methods for matching buy and sell orders).
- Measures to protect the various participants (for example, in the European Economic Area, protection of retail investors through the Markets in Financial Instruments Directive, or MiFID).

Each local authority can also choose whether to recognise a foreign stock exchange. This implies for example that investors' level of protection may not be guaranteed to the same extent from one financial centre to another. An investor could, for instance, be less protected on a specific emerging market than on a developed country's market.

Legislators will additionally regulate access to public savings and admission to trading, setting out the terms and conditions of listing (minimum number of shares to be issued, disclosure requirements, etc.) and the various levels of publication requirements imposed on listed companies (results, corporate actions, etc.).

It should be also remembered that each country's legislation, as applied to financial markets, has its own definition of the concept of a regulated market. A regulated market according to a given country's legislation is not necessarily recognised as regulated by foreign legislation.

For example, in terms of European legislation, all markets within the European Economic Area (EEA) can claim the status of a regulated market. Foreign markets outside the EEA can take steps to obtain regulated market status to enable European investors to access their operations more easily. In order to do this, they are subject to certain obligations and procedures. OTC markets are any markets which have not been granted the status of regulated market. Within this category, some markets are more regulated and organised than others.

Finally, with regard to companies issuing stocks on foreign markets, there are certain specific types of security to mention:

- American Depositary Receipts (ADRs): a certificate issued by a US bank against shares held in custody and representing shares issued by non-US companies. ADRs are denominated in US dollars with an underlying security deposited locally at a US financial institution.
- Global Depositary Receipts (GDRs): global certificates representing foreign shares in the same way as ADRs, denominated in an international currency (often USD) and issued by a depositary (often a British or Luxembourg bank) against foreign shares that are deposited with a local bank in the same country as the issuer.

GDRs can provide access to local capital markets, particularly if such access is restricted by administrative regulations or technical difficulties.

2 | Why invest in shares?

Stock markets give you scope for a wide range of investment opportunities. As a general rule, investing in shares enables you to take advantage of opportunities arising from various industries and sectors around the world and to benefit in turn from capital gains as well as dividend income.

When you become a shareholder, you benefit from the company's profits, both:

- Directly, in the case of the profits earned by the company during its last financial year. You receive a dividend periodically, provided the AGM votes to pay one.
- Indirectly, in the form of capital gains resulting from the market's perception of the potential development of the company's profits over the coming financial years (the anticipated growth in future profits affects the share price).

In certain circumstances, the potential for capital gains can be accentuated: in the case of a takeover bid on the stock, for example. In return for these opportunities, before investing in any shares, you should be aware that several elements influence changes in their price and that specific risk factors apply to this type of security.

3 | What are the risks to be taken into account when investing in shares?

The risks attached to shares are twofold in that they are linked either to the issuing company itself or to the behaviour of the markets as a whole. A certain number of elements will therefore influence a share price:

- The interplay of supply and demand for the shares on the market. This will determine the volatility (i.e. the potential for upward or downward movement) of the share price based on market factors that may or may not be objective.
- The valuation of the company and anticipated future profits: a share's value changes according to the company's present and future economic activity. The share value will also depend on how the company manages and communicates about external factors: the local and international economic climate, geopolitical developments, changes in interest rates, exchange rates, commodities, etc.

In addition to the general risks inherent to all investment products, the following risks apply to shares:

3.1 Risk associated with the solvency of the issuer or counterparty

By purchasing shares, the investor becomes a joint owner of the issuing company, participating in its development as well as the opportunities and risks arising from that development. A company may suffer financial losses, the worst-case scenario being an issuing company going bankrupt, which could result in the shareholder losing all the money they invested.

3.2 Information risk

The information available on the company or the quality of the information provided by the company itself might not be of a standard that would provide you with appropriate decision-making data in order to properly assess the stock's financial prospects.

3.3 Risk of changes in net asset values or prices

The greater the volatility, the higher the risk (on the other hand, the potential for financial gain can be much larger).

Share prices can be subject to unexpected and sometimes abrupt fluctuations, resulting in capital losses on your investment. Price increases and decreases alternate over the short, medium or long term, and it is impossible to define the duration of these cycles. Price changes result both from factors specific to the market as a whole and from factors specific to the security itself.

3.4 Market liquidity risk

The size of the issuing company can influence the volatility of its share price: a small or medium-sized company (with small or mid-sized market capitalisation) is likely to offer less share liquidity and greater price volatility.

Furthermore, it is generally advisable to be careful about any interventions on thin or low-liquidity markets (markets trading small stocks with large potential for growth, narrow exchanges, etc.).

3.5 Risk of no dividends

A share's dividend is determined according to the profits earned by the issuing company. Thus, if profits are low or losses are incurred, it is possible that the dividend will be reduced or that no dividend will be distributed at all.

3.6 Foreign exchange risk

For securities which are not traded in your reference currency, the exchange risk must be taken into account. This would be the case for a euro investor investing in American shares (quoted in US dollars), for example.

3.7 Additional risks on emerging markets

Anyone investing in shares on emerging markets must be aware of the specific rules which apply to them, particularly when access to information is more difficult, making it harder to understand these markets and keep track of securities.

You should be aware of whether you are operating on a regulated market, which has specific protection measures, or a free market.

An independent investor must take great care when operating on an unregulated market. The securities on these markets are aimed at investors who have, through their trading, acquired an extensive understanding of this type of security and the ability to follow its development on a day-to-day basis. Such investors must accept the risk of strong price fluctuations and an absence of liquidity.

In view of their high risk level, emerging market shares are reserved for experienced investors, who should invest only a portion of their assets in these markets.

4 | What you need to know before investing in equities

Before deciding to buy or sell shares, you should have at your disposal all the elements required to analyse the issuing company, in particular:

- The company's situation: its earnings, prospects, sector of activity, the changes in its share price and volumes within its market sector, its competitors, its market share at home and abroad, its solvency (credit rating), its sensitivity to changes in interest rates, exchange rates and commodity prices (hedging tools), its geopolitical exposure and more generally the economic environment.
- The company's capital: the main shareholders (or the absence of a reference shareholder), the portion of its capital available on the market (floating capital), its market capitalisation, its inclusion in or exclusion from a reference index (geographical or by market sector), etc.
- The share itself: the price change over different periods (absolute change and change relative to its sector or geographical area), the highest and lowest prices reached, the price volatility, the level of certain market ratios (price-to-earnings ratio, or PER, dividend yield, etc.), the market opinion of the share (consensus), the share's liquidity (volumes traded), etc.

Some of this information will be available in the company's annual report, on its website or in the specialised press. It will allow you to select the share which best corresponds to the investment you wish to make.

- Remember to diversify your portfolio in order to limit risk. You should balance your investment capital between several stocks. It is not advisable to concentrate too great a portion of your portfolio on one single position. It is, however, wise to diversify positions over different market sectors (cyclical stocks and defensive securities) and different countries and areas (the geopolitical and foreign exchange risks must then be taken into consideration).
- Monitor the changes to your portfolio regularly and pay careful attention to any information published by the companies whose shares you hold (turnover, earnings, corporate actions, acquisitions, etc.).

- Buying shares is reserved for investors with a long-term investment horizon (in general, at least five years).
- Beyond stock picking and monitoring, from a more global stock allocation and portfolio construction perspective, you might take different approaches tailored to your personal needs or interest in one specific market or another, for example:
 - Seeking to invest on several markets worldwide for the purposes of international diversification.
 - Conversely, sticking mainly to your home market.
 - Seeking to benefit from the buoyancy of certain developing or emerging markets.
 - Adopting approaches that are thematic (commodities, etc.) or based on different industries or management styles (growth or value stocks, high-yield stocks, etc.).

Although we do not intend to deal here with portfolio management principles, we must stress the fact that, whatever your personal approach to equity markets, you can participate in certain markets in a secure way indirectly by investing through vehicles that offer, in particular, diversification, monitoring or specific access. Such vehicles could be mutual funds or UCITS, exchange traded funds (ETFs), or structured products (index-linked, indexed to a basket of stocks or indices, etc.).

These vehicles may prove particularly useful as a means of investing in emerging or commodities markets, for example.

5 | What types of investor should invest in shares?

Before investing in any shares, you should have at your disposal all the decision-making elements provided by an economic, financial and market analysis of the issuing company and of the relevant stock markets and economies.

All these factors make shares a difficult product to evaluate and therefore a high-risk investment. Financial gains are not guaranteed and it is possible to lose a significant part of the capital invested, even in the very short term.

However, in general, shares traditionally constitute one of the most efficient long-term investments.

In conclusion, investing in shares is for experienced investors with a long-term investment horizon.

Taxation

It is important that you seek independent advice about the taxation applicable to shares.

Your advisor is available to provide any further information you may require and will assist you in your choices, according to your personal needs and investment profile, before any investment decisions are made.



INVESTING IN AN UNDERTAKING FOR COLLECTIVE INVESTMENT (UCI)

1 | What is a UCI and what are its main characteristics?

An undertaking for collective investment (UCI), or mutual fund, is a legal vehicle that holds and manages a portfolio of financial or non-financial assets on the common behalf of multiple investors, in accordance with a predefined policy and set of goals. UCIs are managed by financial sector professionals authorised by the local financial regulator (usually referred to as portfolio management companies).

When you buy a UCI, you indirectly hold a fraction of this portfolio, in the form of either units (for FCPs – see below) or shares (for SICAVs – see below).

There are two main categories of UCI, which operate identically from a financial point of view but have different structures and thus methods of legal functioning:

- **SICAVs:** A SICAV (Société d'Investissement à Capital Variable) is an investment company with variable capital that benefits from a legal regime very similar to that of a public limited company. It issues shares as and when subscribers apply to invest. When you buy shares in a SICAV, you become a shareholder and therefore enjoy the rights conferred on all shareholders (e.g. the right to vote at general meetings).

- **FCPs:** An FCP (Fonds Commun de Placement) is a unit-issuing mutual fund comprising a jointly owned portfolio of securities. The unit bearer does not benefit from any of the rights conferred on a shareholder.

More generally, different investment vehicles coexist worldwide and can be classified according to criteria pertaining to their legal or corporate structure: FCP (France, Luxembourg), Investmentfonds (Germany), unit trusts (UK), SICAV (France, Belgium, Luxembourg, Italy), SIMCAV, FIAMM and FIM (Spain), etc.

Lastly, an investor may be prompted to subscribe to what are known as feeder funds. This happens when there is a specific master fund/feeder fund structure, in which both funds are distinct legal entities with their own decision-making bodies. A master fund is a fund where the underlying assets, whatever their nature, are grouped together and managed as a whole. The object of the related feeder fund or funds is to subscribe exclusively to the units of the master fund and therefore offer its/their own investors access to the master fund.



Undertakings for collective investment, whatever their nature, are managed by specialists and offer an opportunity to invest without being an expert in the financial markets and to benefit from the expertise of professionals who will do everything in their power to achieve the UCI's management objective. The latter is specified in the reference information documents, generally known as the prospectus and the Key Investor Information Document (KIID).

The UCI's legal documents, as well as national regulations, define specific investment ratios imposed on the portfolio management company handling its financial management, according to the categories of financial securities held in the UCI.

In general, most UCIs are subject to the approval of a regulator based in the legal domicile of the UCI. They can then be authorised for sale in different countries after approval by the local financial regulatory authority.

Within the European Union, a growing number of European UCIs and asset management companies comply with the European UCITS regulatory format which aims to improve investor protection through rules governing diversification, concentration and liquidity, and which gives almost automatic access to the European passport. For example, a UCI authorised in its country of origin (e.g. Luxembourg) can offer its units in other Member States of the European Union by asking its own regulatory authority for entitlement to the European passport for other Member States.

A description of UCITS-compliant undertakings for collective investment that use alternative strategies (Newcits) can be found in the section "Investing in alternative strategies".

1.1 A few definitions

Distribution share class: income will be paid out in the form of dividends.

Accumulation share class: income will be reinvested in the portfolio and will increase the net asset value of the UCI.

Capital gains/losses: these correspond to the difference between the redemption price per unit of the UCI and its subscription price.

Benchmark: a manager will generally seek to outperform a market index or a composite of several indices over a given period.

Absolute return: unlike comparison to an index, the manager will seek to preserve the capital and generate a positive return regardless of the market configuration.

A UCI's net asset value is the price of the mutual fund unit or SICAV share, excluding entry or exit fees.

1.2 Categories

There is no official international system of UCI categorisation. However, depending upon its management objective, a UCI may specialise in:

- An asset class (equities, bonds, money markets, etc.)
- A business sector
- A region
- A management style
- A market capitalisation size

Conversely, some funds diversify into a variety of assets in pursuit of a specific theme.



Management type

In addition, the UCI may offer a guarantee or a promise of a minimum return, notably through the use of a formula, or be actively or passively managed.

In the case of active management, the fund manager can make investment decisions with the aim of:

- Protecting capital first and foremost. This category includes money market UCIs.
- Outperforming a benchmark index or a composite of multiple indices by deviating to a greater or lesser extent from the composition of the benchmark or indices. This is a conventional, long-only UCI. This type of management consists of buying an asset – for example, a stock or a bond – such that the investment performance depends entirely

on the change in asset value over the holding period. The manager's goal is to outperform the benchmark while staying more or less correlated to it.

Furthermore, for several years there has been a tendency to compile different underlying assets within a single UCI in order to boost returns. One example of this is the balanced UCI, which combines exposure to a variety of volatile and risky assets in order to make the risk-return profile more attractive than the fixed allocation of two UCIs with a “pure” financial management approach.



If the management company so desires, index funds can be traded on an exchange in the same way as a stock. Funds in this distinct category are called trackers or exchange-traded funds (ETFs). While passively replicating the performance of an index, trackers are continuously quoted on the stock exchange and can be bought and sold like a share. As a result, liquidity and size are key criteria.

UCI type

A UCI can be open-ended (which is usually the case) or closed-ended:

- Open-ended funds: there is a pre-determined number neither of shares/units nor, for that reason, of investors. The UCI may issue new shares/units or redeem those it has already issued. With respect to investors, the UCI is required to redeem the shares/units at its own expense, at the agreed redemption price and in accordance with the prospectus and/or subscription form.
- Closed-ended funds: issuance is limited to a set number of shares/units, or subscription may be limited to a set period. This category includes UCIs that offer a specific strategy for a certain period (underlying assets are dated bonds). Unlike an open-ended fund, a closed-ended UCI is not required to redeem shares/units. These may therefore be sold only to third parties or, if applicable, on the stock market. The selling price depends on supply and demand.

2 | Why invest in a UCI?

Diversification of the underlying investments implemented by the UCI can limit the risk of loss and may increase the likelihood of making gains. UCIs can also spread risk by using a diversified portfolio that is less exposed to a drop in the value of one of the holdings.

For all its investments, the UCI generally benefits from more favourable conditions (notably in terms of costs) than those available to individuals investing directly in the same assets.

Since investments are pooled by a single asset manager – an expert in the field – the latter has access to a range of human and technical resources (research teams, computer simulations, sophisticated analysis, etc.) which help it improve the quality of its decision-making and thus allow all the unit bearers or shareholders to benefit from improved performance.

Most of the time, UCIs offer a controlled level of legal risk, with national and international regulations tending to provide a strong framework for the functioning of this type of financial instrument. Furthermore, they are subject to first-level controls carried out by the management companies themselves, as well as controls performed by the designated fund depository, the designated auditor and the national regulatory authority which, in most cases, has expressly approved the UCI.

- Generating absolute returns. This kind of UCI, known as an absolute return fund, seeks to consistently generate positive performance. This category includes flexible funds and “Newcits”, which comply with the European UCITS directive and are managed using alternative strategies.

Hedge funds also fall into this final category but are not subject to the same strict regulations. Descriptions of “Newcits” and hedge funds can be found in the section entitled “Investing in funds that use alternative strategies”.

In the case of passive management, the manager aims to replicate a market index and the UCIs are usually known as index funds.

In general, there is a broad choice of specialised or diversified UCIs offering sufficient liquidity to allow for easy switches between funds or even within a fund, for those which are made up of sub-funds. This makes it easy to take advantage of a wide range of investment opportunities. A UCI may allow a client to be present in a given geographic area (an emerging market, in particular) or sector which would be more difficult to access through individual securities and without special expertise.

3 | What are the main risk components that should be considered when investing in UCIs?

The degree of risk varies according to the UCI's management objective. In all cases, a UCI primarily exposes the unit bearer or shareholder to the following risks:

3.1 Risk of price changes

These are market risks related to changes in the index underlying each UCI. The net asset value of the UCI will follow, fairly closely, rises and falls in the markets of the financial instruments and currencies held in the portfolio. For (guaranteed or protected) formula funds, we would encourage you to carefully analyse the various possible market scenarios.

Units/shares in UCIs are subject to the risk of a fall in their price; all other things being equal, such decreases reflect a fall in the corresponding value of the securities or currencies that make up the assets of the UCI. Theoretically, the greater the diversity of investments, the lower the risk of capital loss. Conversely, the risk is higher when the UCI holds more specialised and less diverse investments. Investors should therefore be aware of the general and specific risks related to their investment strategy and to the financial instruments and currencies held in the UCI.

3.2 Risk connected with the quality of product management

The management objective may be only partially achieved if the UCI is not an index fund. The quality of the fund manager is an important consideration. The capital losses or gains made by a manager will depend partly on the quality of their decisions, and therefore on whether their investment predictions come true over time, and partly on their reputation and level of experience.

3.3 Liquidity risk

Investors should be aware of the liquidity offered by the UCI in terms of the frequency of its net asset value calculations and any redemption conditions. In addition, in certain exceptional circumstances, the net asset value calculation may be temporarily suspended, and so likewise any subscriptions/redemptions.

The volume of assets under management held in the fund should also be taken into account.

3.4 Operational risks

The investor should check the operational risks involved in the management process and the controls implemented by the management company to mitigate these risks, particularly when executing subscriptions/redemptions.

3.5 Risk connected with the quality of product management

The quality of the fund manager is an important consideration, particularly as regards their management quality, experience and reputation.

A UCI may not perform in line with its objectives, and investors may not get back all of their initial capital (less subscription fees). Unless specified otherwise, absolute return funds have no capital preservation guarantee.

Lastly, the volume of assets under management held in the fund should also be taken into account.

4 | What you need to know before investing in a UCI

1 | Be sure to read the legal reference documents, i.e. the prospectus and the KIID, attentively. The KIID will provide you with standardised information about the UCI, and the prospectus with exhaustive information. In these documents, you will find information on, among other things, how the SICAV or FCP operates, its financial characteristics, its costs, the list of people involved in its activity and its inherent risks.

These documents can be obtained in full on request and are often available on the management company's website.

2 | Unless stated otherwise, and except for guaranteed-capital UCIs, there is no guarantee for capital invested.

Some UCIs, particularly those composed essentially of shares, are aimed at investors looking for a high level of performance linked to the changes in predetermined financial indicators, in return for a high level of risk.

3 | The most important risk criterion to consider is the UCI's volatility. This risk indicator measures the size of previous price variations. High volatility levels mean that the UCI could see significant upward or downward fluctuations.

4 | Awards and ratings attributed by various organisations will allow you to evaluate the quality of the UCI's management. Although past performance is no indicator of future results, and comparisons between UCIs are not always consistent, it will help you in your choice.

5 | When deciding to invest, you must take into account the investment horizon recommended or indicated in the UCI documentation. It is generally five years or more for an equity fund, three years for a UCI composed mainly of bonds, and between one day and one year for a money market fund.

For formula (or structured) funds (which may be guaranteed or protected), or those which have a fixed maturity date, the shareholder or unitholder must not need to recover their invested capital before maturity. Investors should therefore ensure that they have sufficient financial assets to enable them to not be forced to request a redemption before the maturity date. The capital guarantee or protection is valid only at maturity.

6 | Conditions of investment in a UCI: frequency of net asset value publications, the reference (or denomination) currency of the fund, the total size of the fund, exit conditions, etc.

7 | Net asset value, how it is used:

Net asset values are calculated daily, weekly or sometimes less frequently, depending on the underlying assets. An individual sub-fund within a UCI may be subject to valuation in several distinct denomination currencies.

The net asset value used as a benchmark for determining the purchase or redemption price will be:

- Either the last known net asset value, called a "known price".
- Or the next net asset value to be calculated, called an "unknown price".

To find out the net asset value at which the subscription or redemption will be executed, you must consult the UCI's prospectus.

When placing any order (subscription or redemption), it is advisable to check the deadline by which it must be submitted for it to be executed at the benchmark net asset value indicated in the prospectus.

Taxation

It is important that you seek independent advice about the taxation applicable to UCIs.

Your advisor is available to provide any further information you may require, to supply you with BNP Paribas' UCI investment recommendations, and to assist you in your choices, according to your personal needs and investment profile, before any investment decisions are made.

INVESTING IN FUNDS THAT USE ALTERNATIVE STRATEGIES

1 | What is an alternative strategy and what are its main characteristics?

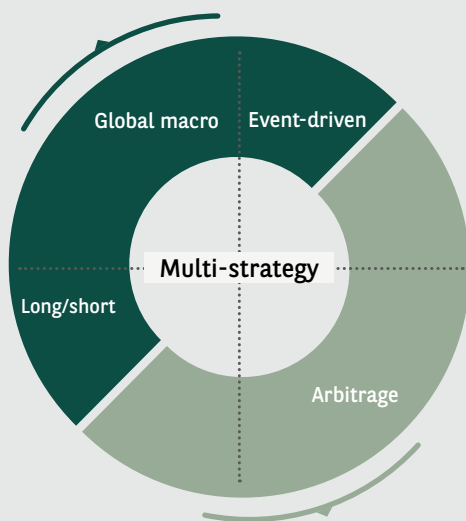
"Alternative" management differs from traditional management (long-only equities, long-only bonds, etc.) by seeking a so-called "absolute" return over a defined investment horizon, i.e. a performance that is not strongly correlated to the financial markets and that hedges against the main risks associated with traditional asset classes (in particular market and interest rate risks).

1.1 The main families of alternative strategies

There are a number of alternative strategies that can be grouped into four main categories presented below.

DIRECTIONAL STRATEGIES

These strategies use long and/or short positions, **based on the managers' predictions for the various global markets** (equities, bonds, currencies, commodities and their derivatives).



NEUTRAL STRATEGIES

These strategies attempt to routinely profit from the discrepancies and changes in asset valuations on different markets.

As such, **relative value strategies are carried out regardless of market trends.**

Global macro strategies

Macro managers establish their investment strategy on the basis of an analysis of global macroeconomic trends, which are then translated into directional investments through a wide range of instruments: equities, bonds, currencies, commodities, indices and/or derivatives. The investments can be enhanced by using leverage.

In this category, there are sub-strategies:

- **Macro/Discretionary:** unlike the systematic approach, the discretionary approach is based on the investment decisions taken by the manager, reflecting their beliefs about certain markets and/or sectors.
- **CTA (Commodity Trading Advisors)/Systematic trading:** systematic managers invest in the future and forward markets in many underlying assets (equities, interest rates, currencies, etc.). Investment decisions are taken using quantitative models developed by the fund's management team.

Long/short strategies

These strategies combine long positions on undervalued stocks and short positions on overvalued stocks. They give managers considerable flexibility, allowing them to adjust net exposure to the market depending on how optimistic they are about the future. The manager usually specialises by sector, by region or by market capitalisation. The use of leverage is common and allows managers to strengthen their positions.

The sub-strategies include:

- **Sector long/short:** the manager has expertise in a particular industry (e.g. financial, technology, etc.).
- **Geographical long/short:** the manager specialises in a particular geographical area, thus benefiting from in-depth knowledge of local markets and their characteristics, particularly in regulatory terms.
- **Short sellers:** these funds only use short positions. They look for securities they consider to be overvalued and which they anticipate will drop in price. Their main selection criterion is the deteriorating fundamentals of the issuer.

Event-driven strategies

Event-driven strategies make the most of the specific events that occur in the lives of businesses: restructuring, mergers/acquisitions, spin-offs, etc. These strategies are typically less affected by market trends.

In this category, there are the following sub-strategies:

- **Activists:** these managers buy a share of the floating capital of a company and become involved in the governance and strategy of the firm by imposing their vision and experience. In so doing, they hope that the value of the firm will increase.



- **Distressed securities:** a “distressed” manager invests in securities, mainly bonds or bank loans, which are highly undervalued due to bankruptcies or during bailouts. This strategy is most prevalent in the United States, where the legislation is favourable.
- **Merger arbitrage:** this strategy aims to take advantage of differences in valuation caused by an ongoing takeover bid or merger. To do this, the manager usually takes a long position on the target and a short position on the purchaser, either before the transaction is announced or after the announcement.

Relative value strategies

Relative value managers use market imperfections to generate performance. They try to identify price or performance differentials that are not justified by the economic situation of an issuer or market in order to take advantage of such discrepancies.

The sub-strategies in this category include:

- **Fixed income arbitrage:** these funds take advantage of price discrepancies in the bond markets. The use of derivatives is an integral part of this strategy and often makes it a little more complex to analyse risk and measure leverage.
- **Equity market neutral:** market neutral managers seek to minimise market risk by balancing long and short positions in common sectors to maintain near zero net exposure to the market.
- **Convertible arbitrage:** the fund makes a trade-off between a convertible bond, with a generally long position, and the corresponding share, with a generally short position. Depending on their expectations, managers may hedge or maintain certain risks (equity, interest rate, volatility and credit) related to their position.

These four families of strategies can be implemented regardless of the type of vehicle (see section 1.2 below).

1.2 Categories of alternative strategy vehicle

The international universe of funds using alternative strategies is vast. It includes many types of vehicle with a wide variety of risk, liquidity and expected return profiles. However, it is possible to group these structures together into the four major categories listed below.

Newcits

These funds implement alternative investment strategies in accordance with the traditional European regulatory framework for investment funds known as UCITS. This fund classification, regulated by a more restrictive framework, offers greater protection in several areas, particularly in terms of rules regarding diversification, leverage, valuation and managing counterparty and liquidity risks. These funds are almost automatically granted a European passport.

These features, as well as improved transparency and reporting, have led to rapid growth in the volume of assets held by this kind of fund. However, these funds remain complex in some cases, because of their alternative management strategies.

On the other hand, usually because of the need for a high level of liquidity, some sub-strategies (activist, distressed) of certain strategy families (event driven, relative value) cannot be transferred to UCITS-compliant funds.

Managed accounts

For over 20 years now, investors have been able to subscribe through managed accounts. These accounts (often sub-funds of a SICAV or a comparable structure) are held by specialised platforms. A hedge fund manager is appointed to implement their usual management strategy, with predefined constraints and risk limitations: liquidity, market risk, diversification, management of counterparty risk, valuation, asset segregation, etc.

The assets remain under the control of the managed account platform (full transparency), which is also free to determine the counterparties with which the manager will work. Operational risk is almost completely transferred from the manager to the managed account platform.

The universe of managed accounts is very large. Prior to any subscription, investors must therefore carefully read the documentation for each managed account and properly understand how it works.

Compared with other alternative investment vehicles, there are additional costs associated with a managed account.

Funds of hedge funds

A fund of funds is comprised of a portfolio of pure hedge funds (usually around 20) which enables investors to diversify their risk across multiple strategies and/or managers.

The risks (particularly volatility) of direct investment in a single hedge fund (see section iv below) can therefore be greatly reduced since the investment is made through a fund of hedge funds, allowing for broad diversification in terms of both strategies (multi-strategy approach) and hedge fund managers (multi-manager approach).

Their level of risk is generally much lower than that of an equity fund, for example, and they offer more consistent profitability that is less dependent on the financial markets.

This hedge fund approach is therefore a good diversification opportunity for most retail investors. Given how funds of hedge funds are structured, however, management fees are higher than for single hedge funds.

Single hedge funds

The management policies of single hedge funds are varied and are sometimes based on an active search for returns, meaning that risks can be high. However, this universe has become highly institutionalised and, due to the significant volumes subscribed by institutional investors, a search for more reasonable and consistent returns has become very common.

At the end of March 2013, 68% of hedge fund management companies had more than USD 5 billion of assets and 90% had more than USD 1 billion. As for the funds themselves, 80% had over USD 1 billion of assets and 90% had at least USD 500 million.

In general, multiple-strategy single hedge funds are less risky than their single-strategy counterparts.

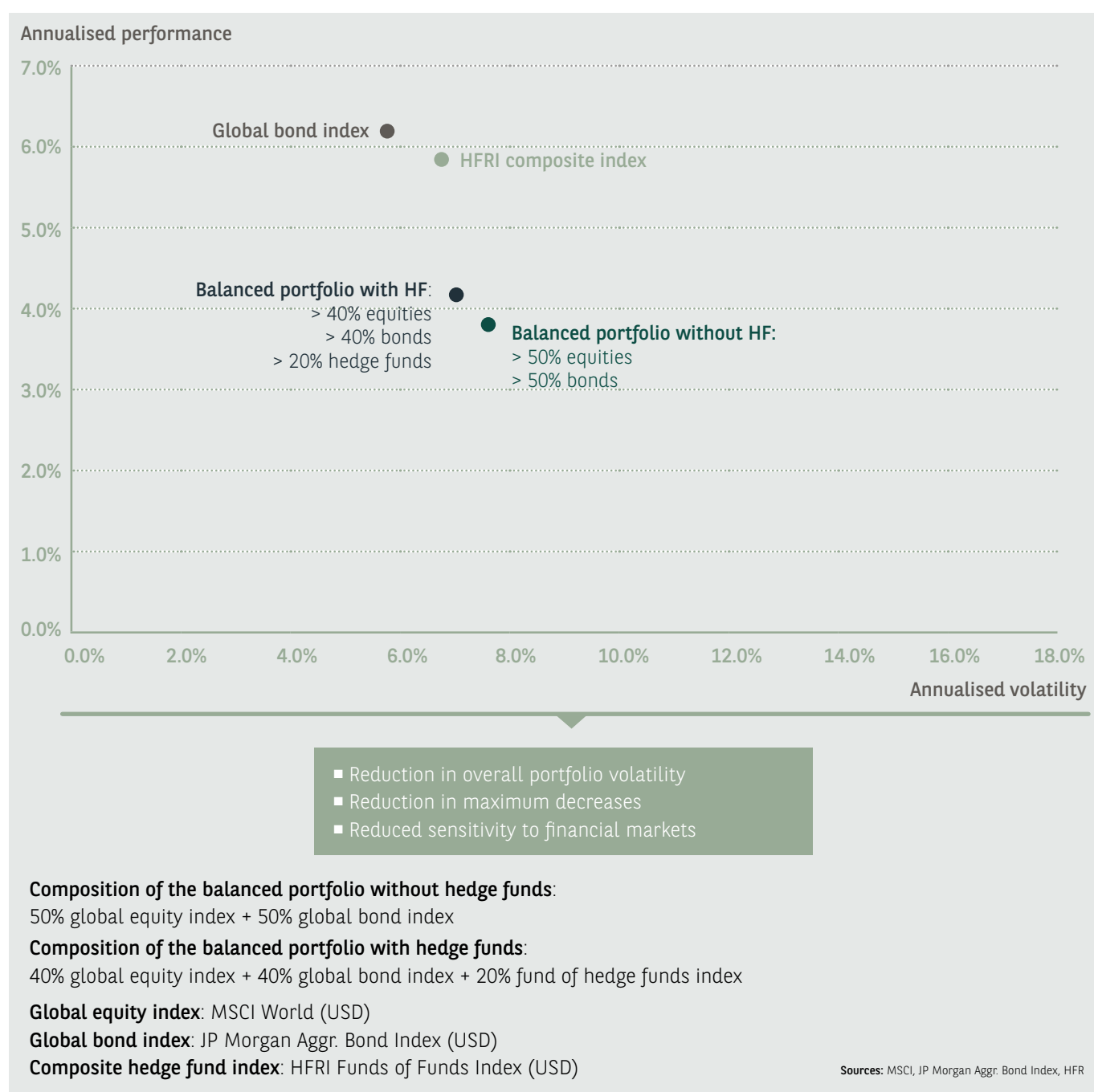
The acquisition of this type of product should be subject to special scrutiny because of its specific characteristics, and must involve an appropriate portion of the investor's wealth or correspond to an investor's particular asset allocation needs.

2 | Why invest in a product that uses alternative strategies?

The objective of an alternative management approach is to achieve absolute returns which have low correlation to market indices. The strategies implemented by the fund to achieve these absolute returns have very different characteristics in terms of profitability and risk, which potentially make it possible to take advantage of all market phases (bull, bear or flat).

Investing in these funds can help optimise risk-return, offering the prospect of attractive gains for a given level of risk (volatility). For instance, the Newcits, multi-strategy funds of hedge funds and single hedge fund portfolios/mandates offered by BNP Paribas seek to preserve capital, break market correlation and achieve limited volatility while providing higher returns than bonds over a medium-term/long-term investment horizon. The single-strategy funds of hedge funds and the single hedge fund portfolios/mandates, depending on the approach adopted and/or strategies implemented, offer superior performance goals with a little more volatility.

The chart below shows the impact of adding funds of hedge funds to a portfolio of stocks and bonds (between January 2000 and March 2013).





3 | What are the main risk components that should be considered when investing using alternative strategies?

3.1 Risk linked to the use of leverage

The level of risk may be increased if the manager uses leverage, i.e. takes positions (by borrowing) which are greater than the total amount paid in by the investors, with the aim of securing higher gains than would have been achieved with the nominal capital.

In this case, a small movement in the market can lead to significant gains but also to substantial losses. In extreme cases, as for any type of investment, a total loss of the capital invested may occur.

The use of leverage is strictly regulated in Newcits, and it is contractual and controlled in managed accounts.

3.2 Information risk

Vehicles using alternative management strategies have a variety of constraints in terms of valuation and reporting depending on the fund's regulations or mode of operation.

For instance, investors in funds using alternative strategies are sometimes provided with very little information. The occasionally complex strategies of investment funds applying an alternative management methodology may seem rather opaque to investors. This phenomenon may be exacerbated when the fund is not subject to strict regulations (such as those which apply to Newcits, for example).

In this case, access to information is limited and possible only through direct or indirect contact already established with the fund and/or management company. That is why strategy changes, which can lead to a significant increase in risk, are often misunderstood or completely underestimated by investors in an environment with low levels of transparency or reporting. This is not the case for Newcits and managed accounts, which offer high levels of transparency and, for Newcits, a statutory obligation to provide regular reports.

The net asset value of a given investment fund is generally not known (it is usually the value of the previous month which is known) when the investor decides to purchase or redeem this type of financial instrument. This is explained by the fact that notice usually has to be given before any operation of this kind. As a result, the net asset value can only be calculated once the purchase or redemption has taken place.



3.3 Market liquidity risk

Funds using alternative strategies have very different degrees of liquidity, which can sometimes be extremely limited.

Overall, for single hedge funds and funds of hedge funds, the breakdown of liquidity is as follows: 22% daily, 8% weekly, 40% monthly, 24% quarterly and 6% less frequently (source: HFR report of 30 June 2013).

These investments may sometimes be subject to minimum holding periods known as lock-ups or to penalties if the investor wants to exit the fund before the end of a given period (less true for funds of hedge funds). This is explained by the sometimes relatively low levels of liquidity for investments contained in hedge fund portfolios, which are designed with the long term in mind.

Moreover, among the techniques used in alternative investments, some involve financial instruments which are illiquid or subject to legal restrictions on transfers or other operations. It is therefore possible that the sale of an alternative investment is permitted only periodically or on certain dates, after a notice period of several weeks, for example, four times a year on specific dates.

For hedge funds, in most cases, redemptions are possible only monthly, quarterly or annually.

Furthermore, due to the complexity of the underlying investments made by these funds, it may be necessary to adjust the net asset value after receipt of the audited financial statements. Therefore, some alternative funds may retain a portion of the investor's units or shares if the investor decides to redeem 100% of their units/shares, pending receipt of the audited accounts.

In most cases, managed accounts offer much more flexible liquidity (monthly, weekly or even daily) and at short notice.

As for Newcits, they offer high levels of liquidity: in most cases daily (83% of the market at the end of September 2012) or weekly (16% of the market at the end of September 2012). In any event, regulation provides that redemption must be possible at least twice a month.

3.4 Risks related to regulatory provisions

We can draw a distinction between funds that comply with the standards of the European UCITS directives (Newcits) and those that do not. The UCITS standards have been refined over time and are intended to provide a satisfactory level of protection for investors, particularly in terms of the management rules applied to the funds and the way they are marketed.

The UCITS directives establish specific rules on permitted investments (prohibition on directly holding short positions, prohibition on investing directly in commodities), management techniques, rules for diversification, risk management, publication of net asset value at a minimum frequency, minimum segregation of assets and functions.

Despite the constraints imposed by the UCITS directives, related in particular to fund management, the volume of assets managed through Newcits has increased in recent years.

Non-UCITS funds may be subject to minimal regulations and relatively flexible oversight, and may therefore offer varying levels of protection to investors.

Problems or delays may occur in the execution of orders for unit subscriptions or redemptions for certain single hedge funds, for which the bank cannot be held liable in any way. There is not always a guarantee that investor rights are enforceable.

Investors attracted to alternative investments must be aware of these risks. Before making any investment, investors should carefully consider the investment products, their solidity, the asset management rigour and the quality of the risk-monitoring system.

However, for the hedge funds universe, a new European directive (Alternative Investment Fund Managers Directive, or AIFMD) came into force in July 2013 in all countries of the European Union, with the aim of establishing enhanced common requirements for accreditation, transparency, risk control and monitoring of asset managers based in the EU and those established in other countries but wishing to manage or sell UCIs within the EU. This will have the effect of further increasing investor protection and of limiting access to experienced, if not professional, clients.

3.5 Risk related to management techniques

The funds in which the client has invested may make short sales of securities (i.e. sell securities that they do not own or, in most cases, that have been borrowed, in order to seek a return from an overvalued asset that is expected to drop in value). This technique is likely to expose the portion of the fund's assets involved in such activities to unlimited risk, because there is no upper limit to the price these securities can reach. However, losses will be limited to the amount invested in the fund in question.

3.6 Risk related to the depositary function

In most cases, Newcits, managed accounts and funds of hedge funds have net asset values established by an independent external auditor. This is also the case for single hedge funds.

However, some funds do not have their NAV validated by auditors (except when calculated at year-end). In these cases, to value the funds, the bank primarily uses non-validated financial information provided by administrative staff and/or market-makers. When the financial information used by the funds to determine their own NAV proves to be incomplete or incorrect, or when the NAV does not reflect the value of the investments made by the funds, the valuation of these assets becomes inaccurate.

A certain number, if not most, funds charge performance fees.

3.7 Complexity or model risk

Newcits and managed accounts are subject to strict constraints on custodians, which ensure a satisfactory level of security.

For some hedge funds, the depositary function is performed by a broker instead of a bank. These brokers may not have the same credit rating as a bank. In addition, unlike depositary banks which operate in a regulated environment, these brokers assume only the task of keeping custody of the assets but none of the regulatory monitoring obligations.

4 | What types of investor should invest in funds using alternative strategies?

4.1 Those with some knowledge of the investment techniques and their underlying risks

In general, and depending on the type of fund or strategy, this investment is for clients with good or very good financial knowledge. The hugely diverse world of funds (from Newcits and single hedge funds to managed accounts and funds of hedge funds) includes funds whose approaches or strategies are accessible to investors with good financial knowledge, while other funds/strategies require expert financial knowledge.

In particular, before entering into a fund using alternative strategies, investors should consider in detail the specific risks associated with the investment. They must also ensure that they are legally entitled to purchase the product (depending on local regulations) and that it is not restricted to a certain category of investors (e.g. professionals).

4.2 Those seeking genuine diversification for their asset holdings

Moreover, as with any asset class, investment funds using alternative strategies must be used in a way that reflects the investor profile (risk appetite, technical knowledge and investment horizon in particular).

To this end, BNP Paribas has a wide range of specialised products and partners.

Thanks to the selections it makes, BNP Paribas provides funds which meet strict criteria in terms of transparency, the use of leverage, and the use of independent directors, reputable audit firms, professional depositaries, etc.

Before investing in a fund, the investor should find out whether or not performance fees will be applied. A certain number, if not most, funds charge performance fees. This is a variable fee, often charged annually, which is paid to the management company if, and only if, performance reaches a level defined in advance in the rules and regulations of the fund (or a trigger threshold). This fee is charged in addition to the annual management fees.

Taxation

It is important that you seek independent advice about the taxation applicable to vehicles using alternative strategies.

Your advisor is available to provide any further information you may require and will assist you in your choices, according to your personal needs and investment profile, before any investment decisions are made.





INVESTING IN STRUCTURED PRODUCTS

1 | What is a structured product?

Structured products are financial products that can meet all investment objectives, including hedging and limited, moderate or aggressive speculation, and involve all types of asset, particularly equities, fixed income securities, credit risk, foreign currencies, commodities and funds.

Their maturity may be from one week to 15 years and is fixed at inception.

Structured products are financial products which combine money market or bond investment (basis of the structured product) with a static or managed financial instrument.

Financial instruments used as a basis for structured products are issued by financial institutions and can take the form of: negotiable debt securities, e.g. certificates of deposit (CDs) with a maturity running from one week to two years or Euro Medium Term Notes (EMTNs); locally approved structured funds; or special purpose vehicles (SPVs), e.g. specific warrants or certificates, generally with longer maturities.

Static financial instruments are derivatives traded on regulated or over-the-counter markets, the value of which varies in response to the movements in a financial asset called the underlying security.

They can be grouped into three broad families:

- **Forward and futures** contracts
- **Swaps**
- **Options** whose prices are determined using mathematical algorithms which model the behaviour of the product over time and according to various market scenarios.

Managed financial instruments are based on many different types of model or structure, including constant proportion portfolio insurance (CPPI), collateralised debt obligations (CDOs) and the quantitative management methods used by certain hedge funds.

2 | What are the main characteristics of a structured product?

2.1 Characteristics

At maturity, a structured product can be thought of as a cross between:

- A risk/return trade-off
- A strategy on one or more underlyings

In a risk/return trade-off, there are three major categories of structured product going from the most risky investment profile to the most conservative:

- Products with capital fully guaranteed at maturity:
 - With minimum coupon guaranteed at maturity
 - With coupon at risk
- Products with capital partially guaranteed at maturity:
 - With minimum coupon guaranteed at maturity
 - With coupon at risk
- Products with capital not guaranteed at maturity:
 - With coupon guaranteed at maturity
 - With minimum coupon guaranteed at maturity
 - With coupon at risk

As concerns strategies on one or more underlyings, there are four basic strategies:

- **Directional:** betting on a rise or fall in the underlying.
- **Opportunistic:** betting on upside or downside potential in underlyings which could happen at any time during the life of the product.
- **Stability:** betting on the stability of the underlying asset throughout the life of the product.
- **Volatility:** betting on significant fluctuations in the underlying asset during the life of the product.

During their life, structured products are traded on a secondary market which generally enables the investor to sell or buy a product at periods defined by the issuer, at market rates prevailing at the time.

2.2 Mechanism

Depending on their sophistication, structured products involve methods of remuneration for the investor which are determined according to payoff formulae of varying complexity.

Depending on which payoff formula is chosen, investing in structured products gives investors an opportunity to:

- Significantly increase returns on risky products; or
- Ensure repayment of guaranteed capital at maturity while potentially offering a return higher than the deposit over the investment period.

Furthermore, there are two major categories of payoff formulae:

- Those which depend on particular events happening during the life of the product.
- Those linked to participating in the actual performance of the underlying.

For the certificates/EMTN, Athena, cap & floor, credit-linked note and reverse convertible bond product groups, the "Structured Products" brochure, which is available on request from your advisor, describes the operating and repayment mechanism of each product based on the three market scenarios: positive, negative and neutral.

3 | Why invest in a structured product?

3.1 Original investment products

By combining a forward/future-type investment with one or more derivative financial investments on different underlyings, structured products constitute an integrated investment product offering both an original return (midway between that of a bond and a share) and an extremely varied one (since there can be many different underlying assets and payoff formulae).

3.2 Customised products

There are many types of structured product offering almost limitless combinations to best meet the investor's needs in terms of underlying securities, amount, maturity, strategy, risk/return trade-off and payoff profile.

These structured products can be denominated in different currencies as the investor sees fit.

3.3 Intermediate-risk products

These often offer an opportunity to invest indirectly in markets that are not easily accessible to the retail investor, or in volatile markets, without requiring a direct holding in the corresponding underlyings, and without feeling the immediate impact of fluctuations by spreading risk.

3.4 Products for diversification

These provide overall portfolio diversification in terms of the investment profile (intermediate risk compared with other investment products), the investment horizon (from very short to very long term) and the underlying asset (all asset classes).

4 What are the main risk components that should be considered when investing in a structured product?

4.1 Market risks

Like all financial products, structured products can be subject to high risk because the underlying securities and their volatility are constantly fluctuating along with the market. Similarly, the market value of a structured product can vary significantly under the influence of other factors such as changes in interest rates or exchange rates (especially if the product is denominated in a currency other than the investor's reference currency) and the time left on the product until maturity.

Structured products should be offered to investors who have the necessary knowledge and experience to allow them to evaluate all the characteristics and risks inherent in each product.

4.2 Risk related to the complexity or structure of the product

As structured products are based on a number of complex parameters (risk/return trade-off, strategy on the underlying asset and, occasionally, a complex payoff formula), the investor must fully understand the mechanisms of the structured product offered and the results arising from the chosen valuation or payoff formula, according to various market expectations and the nature of the underlying(s).

4.3 Capital guarantee risks

Products with a full or partial capital guarantee are aimed at investors who want to limit or eliminate the risk of loss of capital while seeking to profit from a strategy on the underlyings that they have chosen.

However, there is no guarantee of capital until the product reaches maturity. Should the investor wish (unexpectedly) to sell out of the structured product before maturity, they run the risk of losing their guaranteed capital through exit penalties, adverse market conditions and other factors.

In addition, the capital guarantee may not be honoured if the issuer or guarantor were to default.

Products with unsecured capital are designed for investors with a considerable appetite for risk.

The investor must be willing to accept losing some or most of their original capital on the redemption date in the event that the value of the underlying has declined or the issuer has defaulted.

4.4 Constraints related to valuation

Depending on the specific composition of structured products (packaging a forward/future-type investment with one or more derivatives based on various underlyings), valuation of such products may be influenced by a number of parameters. To understand these valuations, the investor must understand that an overall valuation is not enough, but that the various product components and parameters must be analysed to judge its performance.

4.5 Constraints related to secondary market liquidity

The liquidity of structured product markets is entirely under the control of the issuer who commits as part of normal market operating terms to buy or sell the product from/to the investor according to various criteria defined at the outset (price, frequency and minimum amount). For example, if they wish to exit before maturity, the investor may be unable to sell part or all of the financial assets or be required to sell them at a significantly lower price.

Various performance scenarios are detailed in the key information document pertaining to the structured product, together with an estimation of the future performance based on past fluctuations in the value of the investment.

4.6 Risk arising from early repayment by the issuer

Some structured products give the issuer the option to repay the product early (issuer call). In these circumstances, reinvestment conditions may be unfavourable to the investor.

4.7 Issuer risk

To limit this risk, the thing to do when choosing issuers is look at their credit rating which, depending on the maturity of the investment, should be equal or very close to that of the BNP Paribas Group (A+), which often issues structured products itself.

However, the investor assumes the credit risk of the issuer and the guarantor, if any, defined in the product's legal documentation. The ratings of the issuer and the guarantor reflect the independent opinion of the rating agencies concerned and should not be considered as a guarantee of credit quality. In the event of default by the issuer or even its guarantor, the investor may suffer partial or total loss of the capital invested.

4.8 Risk linked to the use of leverage

Applying leverage to structured products can have a significant positive or negative effect both on the return and on the risk associated with the product by accentuating the movement of their underlyings. As such, leverage makes it possible to make significant gains on a given initial investment, equal to the premium paid.

Risk connected with the management model

For managed products, this risk is connected with the appropriateness of the model implemented over the prospective management period.

5 | What types of investor should invest in structured products?

In general, structured products are most often intended for experienced investors.

5.1 Products subject to various regulations

Structured products may be marketed:

- Either within the regulatory framework of a public offering (APE), as established, approved and signed by the local regulator, thus providing adequate security to investors.
- Or through private investments outside the scope of a public offering and which therefore provide a lower level of protection for investors.

Moreover, structured products are subject to specific tax and/or legal regulations that differ according to the country or region in which they are sold. Under these conditions, purchase or subscription of these products can be offered only to investors who meet local regulatory constraints.

5.2 Complex products

Structured products come in an almost unlimited variety of structure combinations, some of which may be particularly complex. For this reason, they are usually reserved for investors who know the financial markets and have sufficiently broad and stable financial holdings to be responsive and cope with any losses. It is therefore very important that investors should properly inform themselves of all product risks, for example by consulting each product's term sheet.

5.3 Before investing in a structured product, be sure to:

- Have a securities account with BGL BNP Paribas.
- Carefully read the standardised KID that summarises the key and specific features of each product.
- Have the minimum investment amount confirmed, on both the primary and the secondary markets.
- Obtain information on how the product works and the investment context.

Taxation

It is important that you seek independent advice about the taxation applicable to structured products.

INVESTING IN PRIVATE EQUITY

1 | What is private equity and what are its main characteristics?

Private equity entails investing mainly in unlisted companies at various stages of maturity in order to assist them in their development and then selling them a few years later with the goal of generating significant capital gains.

In this document, the term “private equity” refers to various components such as venture capital, growth capital, buyout capital/leveraged buyouts (LBOs⁽¹⁾) and turnaround capital. These investments can be made using funds, funds of funds or secondary investments.

1.1 Principal investment strategies

Venture capital

Venture capital means investing in start-up companies specialising in high-growth areas and/or developing innovative products. This type of investment has a particular emphasis on entrepreneurial undertakings as well as start-ups and less mature companies.

SEED STAGE	Financing of the research and/or development stage of an initial concept before a business has reached the start-up phase.
START-UP STAGE	Financing product development and bringing the product to market. Companies may be in the process of being set up or right at the start of trading but they have generally not yet generated any profit.
LATE STAGE	Financing a company whose sales are growing strongly and starting to generate profit, but whose cash flows are not sufficient to self-finance.

Growth capital

Investment intended to finance the growth of a company that is already established in its market and is generating profit. Growth capital finances increases in production and/or marketing capacities and/or product development and/or working capital requirements. The capital investment is most often carried out as a minority shareholder.

Buyout capital/LBO⁽¹⁾

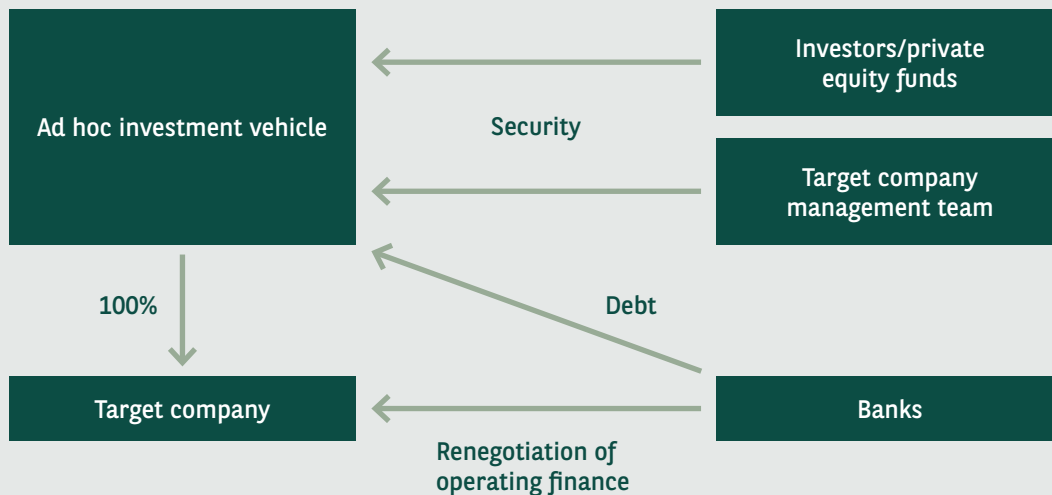
An LBO fund typically aims to acquire a significant or majority stake in an unlisted company generally involving the creation of a new governance structure and a new strategic plan. Typically, these funds invest in mature businesses with established growth plans, with the intention of financing expansion or consolidation, sales growth, reorganisation or the disposal of less strategic assets. For example, funding a company's growth through a policy of multiple acquisitions is often referred to as a “buy and build” strategy.



⁽¹⁾ Refer to the insert on the next page: “Summary of the LBO technique”.

SUMMARY OF THE LBO TECHNIQUE

A leveraged buyout provides finance for the acquisition of a company based on a contribution from a private equity fund taking an equity stake through a holding company, with the balance being financed by bank loans. This technique can maximise return on investment for shareholders who provided equity by taking advantage of the leverage achieved through these loans. The debt incurred to finance the acquisition is repaid from dividends received from the target company. Usually, the managers of the target company invest in it alongside the fund, giving them a common interest in the success of the operation.



The leveraged acquisition technique is based on the premise that the target company can produce sufficient profit (cash flow) to cover the repayment of the debt. If so, the internal rate of return (IRR) for the transaction can be very high. However, should the company not produce sufficient cash to repay the debt and the interest on it, the shareholders' equity investment may be partially or completely lost.

Turnaround capital

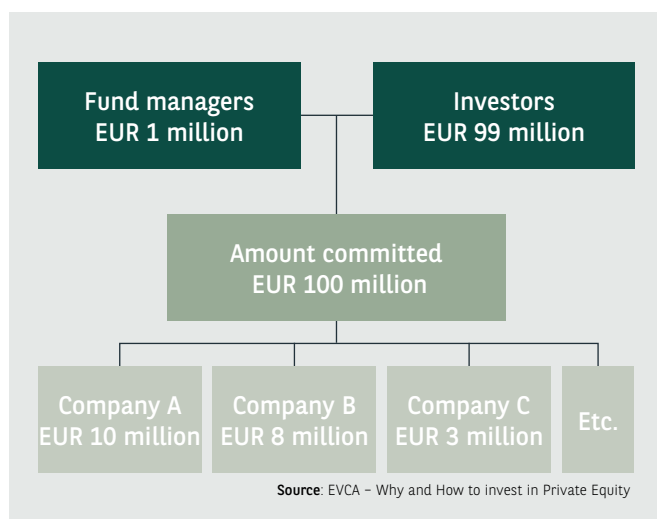
Turnaround capital involves purchasing firms in difficulty, which require an operational and/or financial restructuring. The objective is to implement a recovery plan.



1.2 Main characteristics of a private equity fund

Structure of a private equity fund

Example of the simplified private equity fund structure



Legal and tax aspects

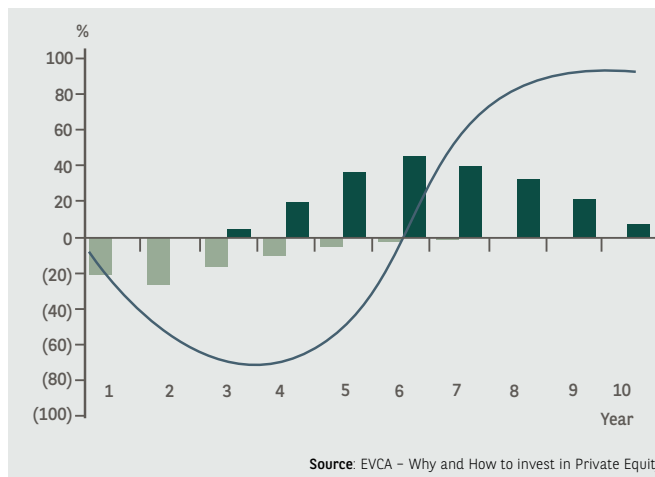
The existence of multiple legal jurisdictions makes it difficult to create a common framework for funds suitable for investors from different legal and tax environments. It is often necessary to create two or more vehicles, with different legal structures and domiciles, to allow investors from different countries to co-invest in a shared asset portfolio.

From a tax perspective, the structures of these funds are generally based on the transparency principle. In other words, investors are treated as investing directly in the portfolios of underlying assets.

The funds may have different structures, such as limited partnerships in the UK or the United States, FIS (specialised investment funds) in Luxembourg and FCPR (venture capital funds) in France.

These structures provide their investors with a regulatory framework that varies according to their country of registration. Within the EU, private equity funds do not benefit from the framework established by the standards of the UCITS directives, which do not recognise private equity assets as being UCITS-eligible.

However, a new European directive (Alternative Investment Fund Managers Directive, or AIFMD) applicable to all non-UCITS funds, including private equity funds, came into force in July 2013 in all countries of the European Union, with the aim of establishing enhanced common requirements for accreditation, transparency, risk control, reporting and monitoring of asset managers based in the EU and those established in other countries but wishing to manage or sell alternative funds within the EU. This will result in the strengthening of investor protection.



Example of the typical life cycle of a private equity fund

At fund close: initial investment

Years 1-5: investment period, capital called up as required

Years 3-10: capital is repaid as and when companies are sold off

- > The repayment period ends after 5 to 7 years
- > Profits are generated from years 5 to 10

Definitions

Minimum commitment:

Often between EUR 5 million and EUR 10 million in the case of a direct subscription to the fund (it is possible to lower the minimum commitment by setting up feeder funds which themselves invest in the master fund).

Managers' commitment to the fund:

The fund's managers and/or directors tend to invest their own capital alongside the investors (usually between 0.5% and 1% of the total fund).

Duration of the investment vehicle (limited partnership, FCPR, etc.):

The usual duration for a private equity fund investment is around 10 years, with possible extensions. Throughout this period, the investment is generally not liquid. However, distributions may be carried out during the life of the fund whenever one of the companies in the portfolio is sold off.

**Investment period:**

The investment period is the investment phase of the fund. It starts at the end of the subscription period when the fund first invests in a target, and usually lasts an average of four to six years.

Management fees:

The management fees charged by the fund traditionally include annual management fees (between 1.5% and 2.5% of the total commitments of the fund).

Performance-based fees:

These represent the share of total profits allocated to fund managers (usually 20%). These fees are commonly referred to as "carried interest" and are subject to a minimum preferred return for investors.

Preferred return:

Payment to the management team of their share of the fund's profits is normally subject to an annual preferred return on all the amounts invested (typically around 8% per year).

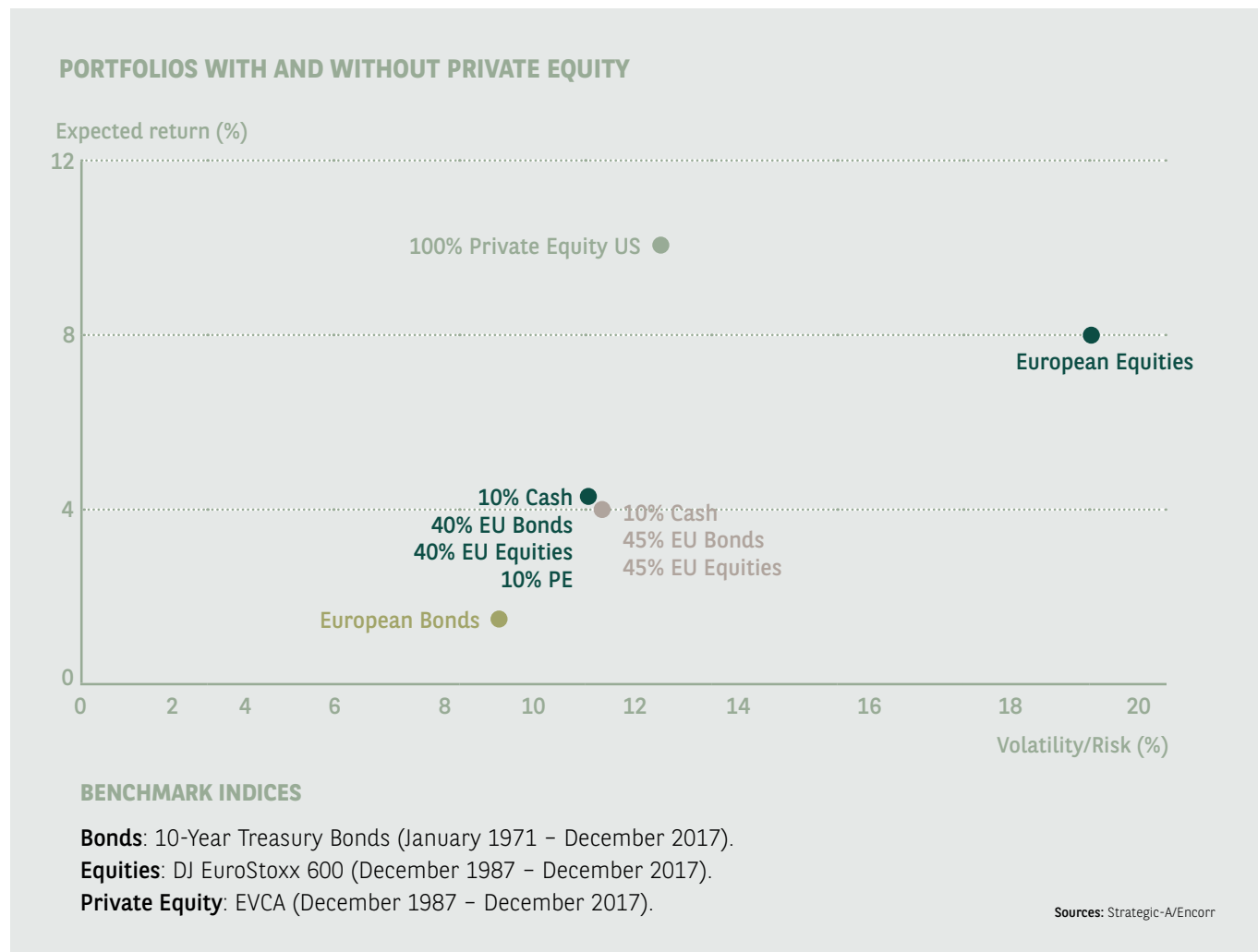
Early exit:

The investment term of the fund is contractually binding with no possibility of an early exit from the fund.

2 | Why invest in private equity?

2.1 Portfolio diversification and an attractive risk/return ratio

Private equity generally has a low correlation to other asset classes. If a certain amount of their total asset portfolio is allocated to private equity, the investor reduces the portfolio's correlation to equity market volatility. Moreover, private equity has a more attractive risk/return profile (see the chart below):



2.2 Seeking absolute returns

Historically, the private equity sector has outperformed other traditional asset classes such as shares and bonds, as a result of a number of factors:

- An active role in the reorganisation of businesses to achieve better performance (breaking up of failing groups and selling off of non-core businesses).
- Ongoing monitoring and advice provided to companies' management teams (regular reporting by companies to the shareholder funds and involvement of the private equity fund in strategic decisions).
- More effective corporate governance required by private equity funds.
- A cash flow optimisation culture, due to the need to repay the acquisition debt, and greater performance from the management team.

2.3 Privileged access to unlisted companies and creation of long-term value

Individual investors, generally through feeder vehicles, can now access private equity funds that were previously reserved for institutional investors.

The cash flow structure of a private equity fund concentrates on creating long-term value, thereby generating attractive absolute returns which can offset limited liquidity.

3 | What are the main risk components that should be considered when investing in private equity?

3.1 Success of the fund and investment performance

The success of an investment in a private equity fund depends on the ability of the investment team to identify and execute appropriate investments in the underlying companies or funds. The gains or losses realised depend on the quality of the decisions taken by the manager of the private equity fund and whether or not their management decisions are put into practice over time. Consequently, the quality, expertise and continuity of the teams in charge (departure of any key personnel) are important risk factors. There is no guarantee that the investments will or can be made, or that the investments will prove profitable.

3.2 Investment in an unlisted company

Investing, even indirectly, in an unlisted company involves a high degree of risk, as such companies may be small, vulnerable to changes in the markets and dependent on the skills and commitment of a management team that may only comprise a few people. These factors increase the likelihood that such companies may encounter difficulties likely to cause a significant loss of value.

3.3 Unsecured investment capital

A private equity investment may involve a risk of capital losses. As such, the investor can have no guarantee as to the capital invested and must therefore allocate a limited proportion of their assets to private equity.

3.4 Leveraged transactions

The manager of a private equity fund can use leveraged transactions, which by their very nature involve a high degree of financial risk and thus increase the exposure of companies to adverse economic factors such as the deterioration of credit conditions and sources, increases in interest rates, economic recession or deteriorating market conditions in the sectors where these companies operate.

3.5 Illiquidity and investment over the long term

Private equity is a long-term investment. Investors may not sell, transfer or freely exchange their stake in a fund and may not be able to withdraw from the fund before maturity. There is no public market which sells interests in private equity funds, and no organised secondary market is likely to develop in the future. It may therefore be difficult for the investor to sell their interest, or to obtain reliable information as to the value of their investments and the extent of the risk to which they are exposed. As a result, investors in private equity must be prepared to accept the risks inherent in holding an interest in a private equity fund over an extended period of time.

3.6 Valuation difficulties

The valuation of an investment by any private equity fund aims to give a true and transparent reflection of the intrinsic value of that investment. Nevertheless, the real market value of an unquoted investment cannot be determined until that investment is sold.

4 | What types of investor should invest in private equity?

Private equity funds are aimed at investors who are:

- Experienced and familiar with the business world.
- Legally entitled to invest in a private equity fund (according to local regulations).
- Aware of the illiquid nature of investments in unquoted companies (no secondary market).
- Able to hold the investment in the medium or long term.
- Seeking high rates of return and relative outperformance compared with traditional asset classes.
- Keen to genuinely diversify their holdings by means of exposure to private equity, which has historically shown low correlation to the equity markets.

Taxation

It is important that you seek independent advice about the taxation applicable to private equity.

Your advisor is available to provide any further information you may require and will assist you in your choices, according to your personal needs and investment profile, before any investment decisions are made.



INVESTING IN DERIVATIVES

1 | What is a derivative and what are its main characteristics?

A derivative is a financial instrument whose value depends on one or more underlying assets traded on markets (equities, interest rates, exchange rates, commodities, etc.) as well as factors such as climatic conditions, etc.

Derivatives can be traded on two types of market: organised (or listed) and over the counter (OTC).

Listed contracts are standardised. They are processed and administered through a clearing house.

Over-the-counter contracts are confidential, non-standardised and traded between two parties. The main advantage of the OTC market is the ability to handle products on a case-by-case basis; the major risk is that one party may default.

The potential gains and losses from derivatives can be considerable (even unlimited in extreme cases). These gains and losses are realised at the maturity of the derivative for products traded on the OTC market. In the case of products traded on organised markets, the investor must be able, every evening, to handle any potential losses estimated by the clearing house.

It is also necessary to sign contractual and specific documentation with BGL BNP Paribas, with whom the derivative is concluded, setting out all the features of the product.

Classification of derivatives

There are two main types of derivative:

- Unconditional contracts which are firm commitments, such as futures, forwards and swaps.
- Conditional contracts (vanilla and exotic options) in which the buyer of the option can choose whether to adhere to the terms of the contract, whereas the seller is obliged to.

1.1 Unconditional contracts

Futures

A futures contract is a firm commitment to buy or sell a quantity of an asset at an agreed price on a future date. It requires the buyer to buy and the seller to sell the underlying product at maturity. Futures contracts are traded on organised markets and their characteristics are standardised.

When a futures contract is signed, the contract amount is not paid (or received) in full. An initial payment is deposited with a clearing house. During the life of the contract, the investor's account is adjusted to reflect the gains or losses (margin calls).

A futures contract has the following features:

- **Underlying asset (bought and sold):** currencies, commodities, shares, indices, etc.
- **Contract size** (quantity of underlying assets exchanged at maturity).
- **Contract maturity:** delivery frequencies vary from contract to contract.
- **Delivery method:** in some cases, the place of delivery.
- **Amounted initially deposited and the margin calls.**

When the operation is set up, there is no exchange of cash flows. The underlying asset is exchanged at the maturity of the contract.

Forwards

A forward contract is a firm commitment to buy or sell a quantity of an asset at an agreed price on a future date. Unlike a futures contract, a forward is traded on an OTC market.

A forward contract has the following features:

- **Underlying asset (bought and sold):** currencies, commodities, shares, indices, etc.
- **Contract size** (quantity of underlying assets exchanged at maturity)
- **Contract maturity:** delivery date
- **Delivery method:** the standard is delivery in cash
- **A single flow at the end of the contract**

Swaps

A swap is an exchange of cash flows between two parties, at an agreed frequency and over a given period, concerning a predetermined notional amount (no exchange of the nominal amount at inception).

Swaps are OTC instruments (not administered via a clearing house) which are made to measure and which involve a counterparty risk on the flows. They may focus on different asset classes (interest rates, credit, foreign exchange, equities, etc.).

1.2 Conditional contracts

Vanilla options

There are two categories of vanilla option: calls and puts.

- **Call option:** gives the buyer the opportunity to buy and the seller the obligation to sell the underlying asset at a specified price (called the strike price).
- **Put option:** gives the buyer the opportunity to sell and the seller the obligation to buy the underlying asset at a specified price (called the strike price).

There are two types of strike:

- **American option:** this can be exercised at any time until maturity.
- **European option:** this can be exercised only at maturity.

The price of an option is called the premium.

- The option buyer pays the premium for the right to exercise their option. Any potential loss is limited to the premium paid when setting up the operation.
- The option seller receives the premium in exchange for the obligation to buy or sell the asset. Any potential loss is unlimited. The option seller is asked to establish a line of credit.

Exotic options

Exotic options are options whose repayment profiles depend on a number of criteria:

■ Binary option

This is an option with an “all or nothing” payoff, which pays a predetermined amount when exercised. This type of option is frequently used when setting up structured products involving different asset classes.

■ Asian option

This is an option with a payoff that depends on the average levels of the underlying observed over a given maturity and frequency.

■ Barrier option

This is an option whose very existence is conditional upon either its activation (knock-in) or deactivation (knock-out); this kind of option is used in structured products called barrier products.

■ Worst-of/Best-of option

This is an option whose payoff depends on the performance of the underlying with the lowest or best performance from a basket of securities.

■ Callable/Autocallable

This is an option that features early redemption at the issuer's discretion or subject to changes in the underlying.

Whether vanilla or exotic, all options feature the following:

- **Underlying asset (bought and sold):** currencies, commodities, shares, indices, etc.
- **Nominal** (amount of underlying assets exchanged at maturity)
- **Maturity:** the date on which the option expires
- **Strike price of the option**
- **Price of the underlying asset**
- **Option premium**
- **Payoff formula or result at maturity**
- **Plus some unique characteristics specific to exotic options**

It should be noted that the volatility which helps determine the price of the option serves as a parameter for quantifying the risk taken on the underlying asset, since it measures the magnitude of changes in the underlying asset price.

2 | Why invest in derivatives?

The main advantages of investing in derivatives are:

- The potential for significant financial gains from a small initial investment (leverage).
- The use of suitable hedges.

For experienced investors, derivatives make it possible to use more complex and/or more targeted speculative strategies than direct intervention on the market for the underlying asset.

3 | What are the main risk components that should be considered when investing in derivatives?

3.1 Market risk

The market value of a derivative can vary significantly under the influence of various factors, such as the performance and volatility of the underlying assets, changes in interest rates or exchange rates (especially if the product is denominated in a currency other than the investor's reference currency), the economic and financial environment in the country/countries concerned, and the time left on the product until maturity.

For derivatives related to credit markets, the default risk of the various issuers of the underlying bonds depends on their quality (reflected by their ratings, where available) and the macroeconomic environment. The investor should know the quality of the issuers of the bonds associated with the options in question. On the other hand, bond prices can vary greatly between the issue date and the maturity date. This price variation is partly related to the interest rate on the market.

3.2 Option pricing risk

Since options are created using complex parameters, the investor must fully understand the mechanisms of the derivative offered and the results arising from the valuation or the payoff formula chosen, according to various market expectations and the nature of the underlying asset(s).

3.3 Liquidity risk

The liquidity of derivatives is entirely under the control of the counterparty, who chooses whether to commit as part of normal market operating terms to buy or sell the derivative from/to the investor according to various criteria defined at the outset (price, frequency and minimum amount). If they wish to exit before maturity, the investor may be unable to unwind part or all of their derivative or be required to unwind

it at a significantly lower price. Finally, some derivatives may become relatively illiquid or encounter high levels of volatility or a decrease (or increase) in value, reducing the relevance of their value in the portfolios or even making such valuation impossible.

3.4 Counterparty risk

With derivatives, each investor bears the credit risk of the counterparty to the transaction. The ratings of the counterparty reflect the independent opinion of the rating agencies concerned and should not be considered as a guarantee of credit quality. In the event of default by the counterparty, the investor may suffer partial or total loss of the nominal amount.

3.5 Credit risk

For the seller of a derivative (e.g. an option), credit risk also needs to be taken into account. This risk is related to the possibility of an unfavourable trend in the underlying asset, which may cause irregularities that then have to be corrected by reducing exposure or strengthening collateral. The level of collateral required from the investor and the method used to value it depend entirely on the Bank.

3.6 Risk of unlimited loss when selling an option

When selling an option, it is important to understand that the risk of loss can be unlimited if the price of the underlying asset moves unfavourably.

3.7 Conflicts of interest

A number of conflicts of interest (actual or potential) may arise from the general investment activities of the parties involved in the transaction, of their investment professionals or their affiliates. Specifically, the counterparty or its affiliates may recommend/manage other investment vehicles whose interests may differ from those of the holders of the derivatives in question.

3.8 Risk linked to hybrid products and exotic options

The risks associated with hybrid products and exotic options are the same as those associated with OTC options, but there are other factors that must be taken into account (possible correlations, specific features of exotic options, etc.).



4 | What types of investor should invest in derivatives?

Derivative products are generally suitable for experienced investors who can understand the often complex trajectories of these products. We recommend that you perform market simulations on derivative product positions in order to gauge their possible development and thus make fully informed decisions. Furthermore, derivative product positions should be monitored frequently (ideally, daily) as they change very quickly in accordance with their underlying asset, volatility (leverage effect) and the time remaining to maturity (time value decay).

Prior to investing in a derivative, investors should carefully read the standardised key information document (KID) that summarises the key and specific features of each product.

Taxation

It is important that you seek independent advice about the taxation applicable to derivatives.

Your advisor is available to provide any further information you may require and will assist you in your choices, according to your personal needs and investment profile, before any investment decisions are made.



INVESTING IN WARRANTS

1 | What is a warrant and what are its main characteristics?

A warrant is a transferable security that works in a similar way to an option. In exchange for a premium, it gives investors the right (but not the obligation) to buy or sell:

- A given quantity of a specific asset known as the underlying.
- At a predetermined price known as the strike price.
- At any time within a predetermined time limit or on a predetermined date known as the maturity.

The premium is the transaction price of the warrant.

These parameters are fixed on the day the transaction is concluded. The underlying may be, for example, a share, an index, a basket of shares, a commodity or a pair of currencies.

Just like for options, there are two types of warrant:

- **Call warrant:** option to buy the underlying asset at the strike price.

- **Put warrant:** option to sell the underlying asset at the strike price.

For European-style warrants, the investor is entitled to buy or sell the underlying asset at maturity. For US-style warrants, investors are entitled to do so throughout the lifetime of the product.

Parity: this is the number of warrants required to exercise one's right with respect to an underlying. Each warrant has its own parity. For instance, a parity of 10 on an equity call warrant means that you must buy 10 warrants to be able to buy a share at the strike price on the maturity date.

Warrants are financial instruments belonging to the category of securities (bonds, shares, etc.). They are not derivatives like options, although they function in a similar way.

Unlike options:

- Warrants can be bought, but they can be sold only if the investor actually owns the warrant as part of their portfolio. Warrants cannot be sold short.
- Warrants tend to be issued by financial institutions which are authorised to issue securities.



The issuer communicates on the market in order to solicit investors' interest, stimulate demand and thus ensure a certain level of liquidity.

Warrants can be listed on a stock market like a share.

Since listing is optional, a certain number of warrants are traded over the counter under the terms of a simple contract.

Usually, the liquidity of the warrant markets is high enough for investors to be able to sell a warrant at any time until a date a few days before the maturity date, defined on each stock exchange or market.

For most warrants, a cash settlement at maturity is chosen by the issuer. This is always the case for put warrants.

Price factors for a warrant:

As for an option premium, the price of a warrant depends on several market variables:

- **The value of the underlying asset** (share, index, basket, commodity, etc.).
- **The prospective movements** in the price of this underlying compared with the chosen strike price, and the volatility.

■ **The lifetime of the warrant**

When the market expects the underlying to fluctuate sharply, its volatility is high and is reflected in the value of the warrant, which is more expensive because there are more opportunities to make money.

Similarly, the longer the warrant's lifetime, the higher the probability of significant change in value of the underlying. A warrant with a long maturity is therefore riskier than a warrant with a shorter maturity, but it does offer more opportunities to make money.

Finally, the level of the strike price, which is chosen in relation to the price of the underlying at the time of the warrant purchase, is paramount because the gain at maturity will depend not only on the trend observed over the warrant lifetime, but also on its scale.

The opportunities and risks of such a speculative investment will depend on the combination of these three main factors. It is therefore essential that the investor fully understands the warrant's sensitivity to changes in these parameters in order to make a profitable purchase.

2 | Why invest in warrants?

- The warrant is a speculative financial instrument: it offers high potential gains as well as a high level of risk. Its specific feature is that it offers leverage, i.e. it accentuates upward and downward movements in the price of the underlying asset in question. As such, leverage makes it possible to make significant gains on a modest initial investment, equal to the premium paid.
- Warrants also allow investors to open a speculative directional position on a specific underlying asset, without buying it directly. If investors expect changes in the value of an underlying asset, but wish to limit their loss in the event of an unfavourable price movement, purchasing a warrant with wisely chosen parameters (strike price and maturity) allows them to bet on the price move while limiting their losses to the purchase price of the warrant instead of the price difference which they would have had to bear had they bought the underlying asset directly. Again, leverage enables the investor to invest a modest initial amount and yet back an idea for a much higher nominal amount for which they may not have the corresponding cash available.

In the specific case of portfolios that are heavily invested in the underlying, certain warrant strategies (put purchases) may enable potential losses in the event of a sharp downturn in the underlying to be hedged or limited.

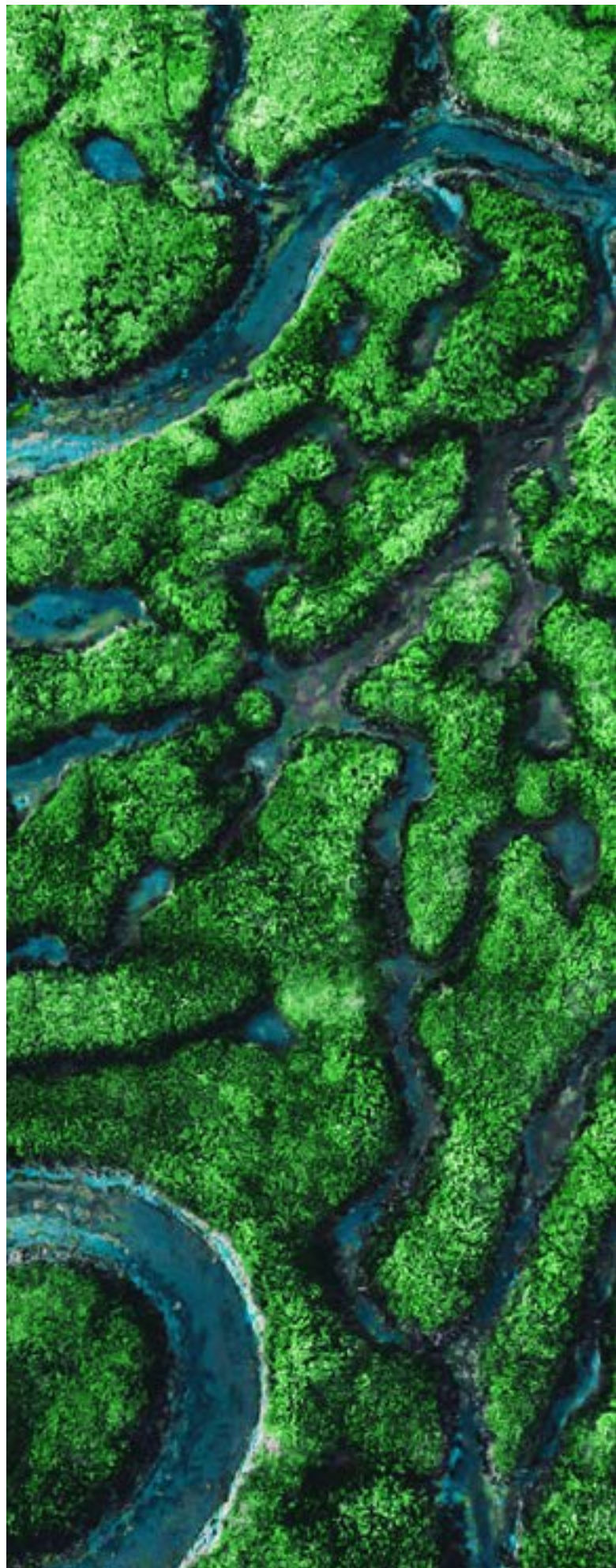
3 | What are the main risk components that should be considered when investing in warrants?

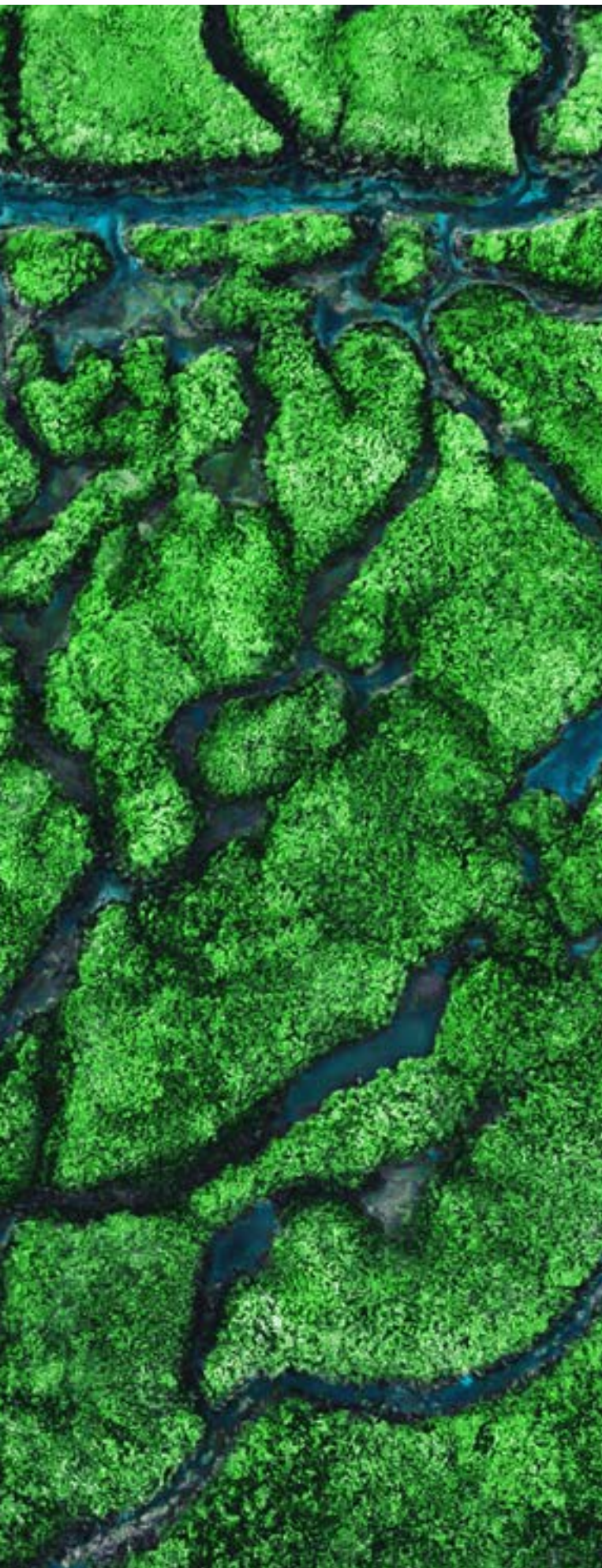
Market risk

The main risk with a warrant is that market conditions on maturity mean that there is no point in buying the underlying asset at the warrant strike price. For example, if an investor buys a call warrant on a share at a strike price of 100 but sees that the share price is 80 when the warrant matures, there would be no point in the investor exercising their warrant and it would make more sense to buy the share at 80 directly on the stock market. In such a case, the investor would lose their initial investment (the premium).

Risk of capital loss

The value of a warrant decreases over time. But this time decay is not linear: the closer the warrant is to the maturity date, the faster the time value (and thus the warrant value) decreases. An approximate estimate is that a warrant loses about two thirds of its value over one third of its lifetime. It is therefore sometimes better to sell the warrant early enough to realise a profit and offset the loss due to time value.





Counterparty risk

There is also a counterparty risk in relation to the warrant issuer: it is important to buy the security from a major financial institution.

4 | What types of investor should invest in warrants?

Warrants are only suitable for very experienced investors who are able to understand the often complex trajectories of such products and their high degree of sensitivity to movements in their quotation parameters.

The choice of the different warrant parameters is paramount in achieving significant gains. It should optimise the strike price and maturity in line with expectations for the market, while minimising the negative effects associated with the sharp decline in time value at the end of the warrant's life. In order to optimise their choices, investors should have an excellent knowledge of complex option-type products as well as a thorough knowledge of the underlying market.

Price movements in purchased warrants should be monitored to detect any opportunities related to a dynamic management of these extremely volatile instruments.

Taxation

It is important that you seek independent advice about the taxation applicable to warrants.

Your advisor is available to provide any further information you may require and will assist you in your choices, according to your personal needs and investment profile, before any investment decisions are made.



INVESTING IN AN UNLISTED REAL ESTATE FUND

1 | What is an unlisted real estate fund and what are its main characteristics?

1.1 Background

Traditionally, investing in real estate was synonymous with direct, physical investments.

Now, however, there are a number of investment vehicles and legal structures available which make it possible to invest in real estate indirectly. Investing in a real estate fund therefore represents an alternative to direct investment and the transaction can be entrusted to real estate market professionals.

An indirect investment can be made:

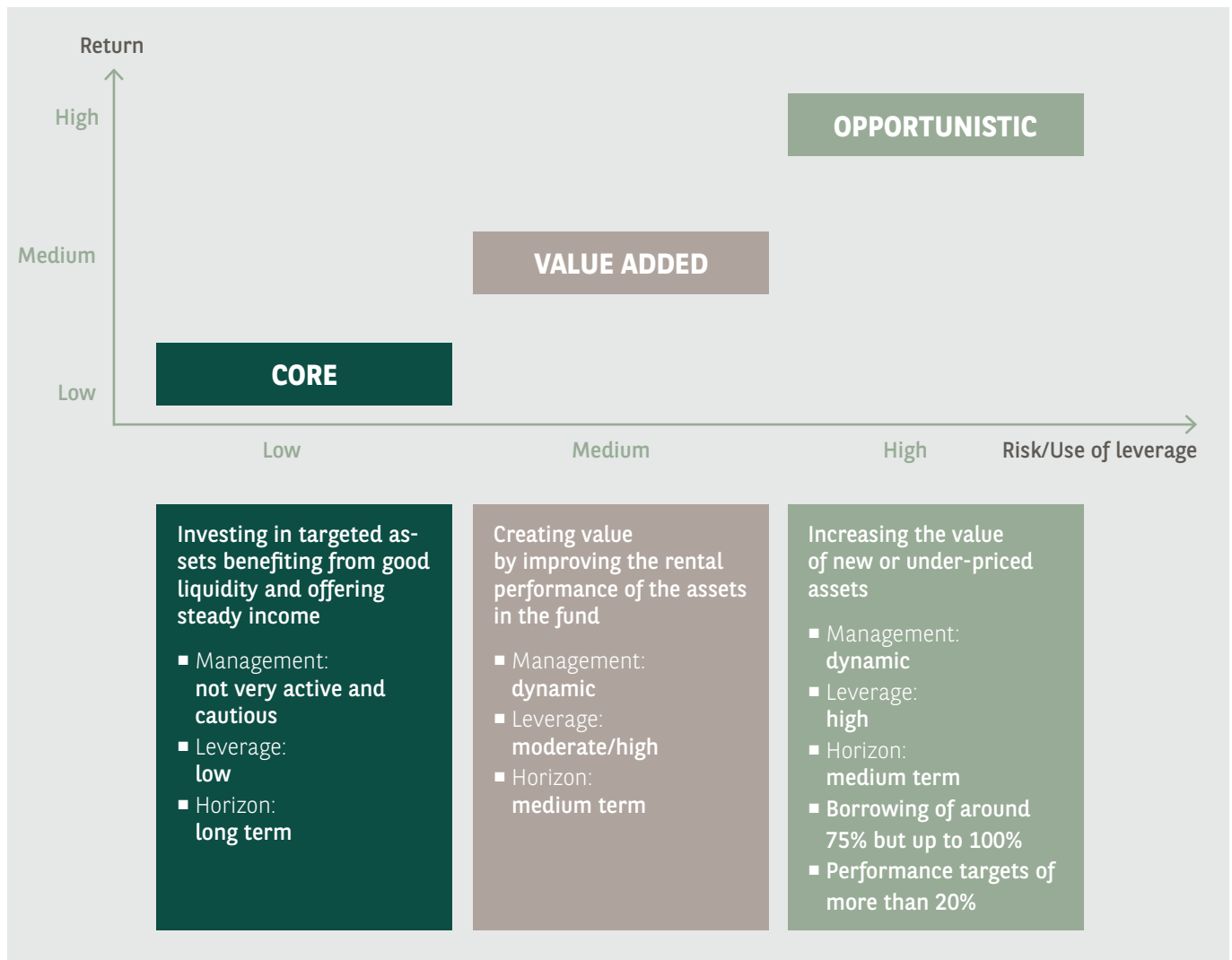
- Through listed vehicles (real estate investment companies, exchange traded funds). Their shares are subject to daily liquidity. Listed real estate is more liquid and diverse than unlisted real estate. However, it is more sensitive to stock market fluctuations.
- Through an unlisted private structure managed by a management company. This company is responsible for investing in, managing and trading property, depending on market opportunities. It aims to optimise the profitability of the fund over an often predetermined period of time.

There are numerous legal structures, often specific to each country. Securities are traded over the counter.

The most frequently used benchmark for measuring performance is the Investment Property Databank (IPD). It provides the real estate investment market with information comparable to that of regulated markets (Europe, United States, Asia).

1.2 What are the main characteristics of an unlisted real estate fund?

There are three main strategy types: core, value added and opportunistic. They offer varying risk/return ratios and levels of added value, depending on the degree of recourse to financial leverage and active asset management.



The investment zone can be single- or multi-country and single- or multi-sector (housing, offices, shops, hotels, etc.), thereby enabling varying degrees of diversification.

The expected duration of an unlisted investment fund varies from six to ten years, including a property acquisition period of two to four years.

The return objectives are expressed as a net, pre-tax Internal Rate of Return (IRR). Calculated as a percentage, the IRR measures the profitability of an investment based on cash flows. Income can be distributed to investors during the fund's lifetime or at the time of exit from the investment (liquidation, cease of trading, flotation).

1.3 Investment structure

An investment in an unlisted product may be made via a feeder fund or directly in the master fund.

Depending on the structure in question, a direct investment in a master fund is associated with a level of investment of more than EUR 1 million, while the average feeder fund investment ticket is usually around EUR 150,000 to EUR 250,000.

Investors are therefore generally advised to invest through the feeder fund.

Investments in real estate will be made by the master fund through an ad hoc legal structure. Each investment in a property asset may be accompanied by varying degrees of leverage (debt).

The real estate strategy is implemented at the discretion of a real estate management company (asset manager) to which the investor fully delegates the management of the fund and pays a management fee.

2 | Why invest in real estate?

In the last 20 years or so, real estate has established itself as an asset class in its own right, with the following merits:

- A sizeable market – real estate investment represents around 15% of global GDP.
- It provides a useful means of diversifying portfolios with real assets, since real estate cycles vary in sensitivity by geographical location and by the broad range of underlying assets (residential, offices, shops, etc.).
- It offers a risk/return ratio somewhere between equities and bonds.
- It shows a capacity for resilience because of its low correlation to traditional financial investments (safe haven).
- It helps protect against inflation due to regular, stable income.

3 | What are the main risk components that should be considered when investing in unlisted real estate funds?

This type of investment combines the risks associated with investing in the real estate market and those of investing in an unlisted fund.

3.1 Market liquidity risk

Unlisted companies' shares cannot generally be sold freely; there is no secondary market for these shares and no expectation that one will develop. It is therefore difficult, if not impossible, for an investor to sell their shares.

3.2 Interest rate risk and the risk associated with changes in the economy

Interest rate risk and the risk associated with changes in the economy.

Variations in interest rates and financial market volatility may also restrict the financing solutions available to potential real estate buyers or those related to setting up transactions, and therefore push selling prices for these assets down, thereby reducing the effective return on the investment.

An economic slowdown or a significant inflexion in real estate market cycles may affect the local real estate market.

3.3 Risk related to the each fund's investment strategy

The choice of a real estate strategy must reflect the investor's expectations in terms of performance. The financing risks (leverage) must be also be included – these increase in proportion to the returns – as well as those linked to the maturity of the real estate markets and of the construction sector, as well as the management team's ability to implement the desired strategy.



3.4 Risk connected with the quality of product management

Making a success of an unlisted company requires a very specific type of expertise and depends above all on the skill and commitment of the asset management company. Of particular importance is the ability to identify, choose and acquire appropriate real estate assets and implement the investment strategy. It is essential to choose a first-class asset manager with an excellent track record over several years (existing funds or successfully completed real estate operations).

3.5 Market and underlying asset risk

An investment in an unlisted company is riskier than an investment in a listed company, as unlisted companies are often smaller and more vulnerable to changes in the markets. Past performance of similar investments cannot serve as a reference or a guide to the returns likely to be produced by another real estate investment fund. Since investments are pooled by a single asset manager – an expert in the field – the latter has access to a range of human and technical resources (research teams, computer simulations, sophisticated analysis, etc.) which help it improve the quality of its decision-making and thus allow all the unit bearers or shareholders to benefit from improved performance.

3.6 Regulatory risk

The regulations and taxation applicable to property investments may be subject to modification, with possible consequences for the operational management of the assets.

3.7 Additional risks on emerging markets

Investing in a fund which invests significantly in an “emerging” property market must be approached carefully. The asset manager must carefully analyse the characteristics of each local market (transparency, property and leasing rights, etc.) and pay particular attention to the quality and reputation of the local partners selected.

3.8 Counterparty risk

The counterparty with whom a contract is concluded may fail to meet its commitments (delivery of goods, payment of rent, etc.). The level of risk involved depends on the choice of counterparty (property developers, tenants, etc.). In the case of a fund, this choice is the responsibility of the management company.

4 What types of investor should invest in unlisted real estate funds?

Investing in an unlisted real estate fund provides access to investments managed by real estate professionals, which can respond to the investor's specific requirements through a combination of the following factors:

- Risk/return profile (core to opportunistic strategies)
- Investment horizon (medium/long term)
- Diversification in terms of geographical regions/real estate sectors

However, investing in an unlisted real estate fund involves a significant degree of risk in that it implies a medium-/long-term investment horizon and carries no guarantee that the investment will achieve its performance objectives, nor that the investor's capital will be recovered.

This type of investment is suitable for investors who have the ability, the means and the financial circumstances required to evaluate and accept the risks involved in investing in an unlisted company (in particular, the lack of liquidity inherent in this type of investment and the risks associated with investing in the real estate market).

Given the risks inherent in both unlisted investments and the real estate market, investors should make sure they have access to transparent information. It is particularly important that they receive regular, detailed reports, validated by an independent expert, so they can fully assess the quality of the assets acquired and verify that the fund strategy has been properly implemented, and therefore ensure the smooth running of their investment for its entire duration.

Taxation

It is important that you seek independent advice about the taxation applicable to unlisted real estate products.

Your advisor is available to provide any further information you may require and will assist you in your choices, according to your personal needs and investment profile, before any investment decisions are made.



INVESTING IN COMMODITIES

1 | What is the commodities market and what are its main characteristics?

The term “commodities” covers a vast scope, including markets in raw materials, agricultural and farming products, oil and energy sources, precious/rare/industrial metals, minerals, etc.

These markets in generic, fungible and standardised products bring together various types of actor carrying out transactions in which prices are constantly adjusted to reflect supply and demand. By their very nature, the prices of materials traded on these markets have an intrinsic level of volatility.

Their various characteristics (quality standards, delivery conditions, etc.) also result in a proliferation in the number and terms of contracts which can be traded, producing an extremely sophisticated range of financial instruments. These markets are therefore among the most complex for an investor.

1.1 Market participants

These markets, which are generally still very much the preserve of professionals, essentially developed in the form of organised markets, with a clearing house, futures¹⁾ and options. These contracts allow one group of participants (mainly producers) to hedge against unfavourable changes in prices, and another group (speculators) to profit from volatility and fluctuations in the underlyings. The involvement of speculators makes it possible to considerably increase these markets’ liquidity and volumes.

Settlement on maturity can be carried out via physical delivery of the commodities in question; this mainly occurs when participants are professionals. In this case, the date and place of delivery, and the product’s characteristics, must be stipulated. Quality standards make this approach broadly complex.

However, most trades by investors are settled prior to maturity with a cash payment of the difference between the initial purchase/sale price and the final redemption/resale price of the forwards or futures. The transparency offered by these markets also means they can be used as a benchmark for physical transactions on the spot market.

For retail investors, only gold and precious metals can be physically delivered or recorded in book-entry form with their bank.

1.2 The main underlying products

- **Agriculture:** these commodities are often grouped into three categories:
 - Grains: corn, soya, wheat, oats, rice, barley, etc.
 - Exotics: cocoa, coffee, sugar, rubber, orange juice, etc.
 - Fibres: cotton, wool, silk, lumber, etc.
- **Cattle farming:** meat, livestock, etc.
- **Energy:** oil, petroleum products, gas, coal, electricity
- **Precious metals:** gold, platinum, palladium, silver
- **Minerals and industrial metals:** iron, copper, aluminium, zinc, lead, nickel, diamonds, etc.

As part of its commitment to corporate social responsibility (CSR), BNP Paribas has developed a policy to serve as a framework for its business activities in relation to certain underlying products linked to commodities, and to ensure that the Bank takes particular care with respect to key agricultural commodities (those defined as “grains” by the FAO). The group undertakes not to sell derivatives (futures) with exclusively financial objectives. When an investor wants to invest in this type of underlying product, BNP Paribas checks that it is purely for hedging purposes.

1.3 Indices

The main composite indices acting as market benchmarks include:

- Rogers International Commodity Index® (RICI)
- Reuters/Jefferies CRB® Index (RJ/CRB)
- Dow Jones-UBS Commodity Index (DJ-UBSCI)
- Standards & Poor’s Goldman Sachs Commodity Index (S&P GSCI™)
- DCI® BNP Paribas Enhanced (DCI®-B)

These indices are constructed to encompass baskets of futures on the various underlying markets.

They have variable characteristics depending on the weighting of the various categories of commodities – either balanced and diversified, or focused on one of them (e.g. energy, metals or agriculture) – and depending on their geographical scope.

Some are listed directly on organised markets via futures on these indices (GSCI futures are listed on the Chicago Mercantile Exchange, RJ/CRB futures on the New York Board of Trade), and there are index-linked funds or trackers making these composite markets accessible to general investors in the commodities asset class.

1.4 Instruments

Futures and options contracts (see section on derivatives)

Commodities futures and options generally function in the same way as for other markets. The prices of futures represent the prices that market participants are prepared to pay/receive at a future date for a fixed quantity of a commodity. These futures contracts have the advantage of being standardised and listed on an organised, transparent and liquid market, and they avoid physical delivery of commodities.

The main organised commodities markets are:

- For all underlyings, the Chicago Mercantile Exchange Group (CME Group) and the Intercontinental Exchange (ICE), which recently merged with NYSE Liffe.
- For agricultural products, the New York Board of Trade (NYBOT).
- For industrial metals, the London Metal Exchange (LME).

Markets specialising in a specific commodity are mainly reserved for professionals and investors with extensive experience in relation to the underlying commodity concerned, as the wide array of contracts available makes trading even more complex. For a more general but still sector-based approach, futures based on composite indices are available with contracts requiring cash settlement on maturity.

Finally, assorted baskets have been prepared for institutional investors on the theme of “global commodities” to be found in the main indices.

Long-only funds specialising in commodities

Over the past few years, management companies have developed a specialised range of funds adopting an index-based approach that is either general or focused on a specific theme.

Many indices created by large financial institutions are listed on the market. Many of them require very high initial investments which are not accessible to all retail investors. Management companies specialising in commodities offer an increasingly accessible range of general and diversified or theme-based index funds (biofuels, non-GMO, etc.), some of which are aimed at retail investors.

Furthermore, some enhanced indices and index funds exist (e.g. DCI® BNP Paribas Enhanced (DCI®-B)). These funds use complex mathematical models to take advantage of differences between spot and futures prices.

Some managers have also developed strategies using a range of instruments (indices, equity-commodities, etc.) allowing active management in this asset class.

Structured products based on commodities

It is possible to create structured products based on commodities in the same way as on other underlying assets such as shares. Most standard structured products can be adapted to underlying commodities or commodities indices. These products make it easier for retail investors to access underlying commodities that are sometimes difficult to access otherwise.

It is possible to develop a wide range of products (yield, performance, etc.), offering total or partial capital protection (see section on structured products).

Commodities funds using alternative strategies (particularly long/short funds)

The range of funds using alternative strategies and investing in commodities is vast and varied. It contains a very wide choice of risk/return profiles. These funds offer varying exposure to commodities, which will be managed actively to capture short-term returns and long-term structural bull trends.

This type of fund, like all products with underlying commodities, is reserved for experienced investors.

2 | Why invest in commodities?

In recent years, commodities have offered a very important means of diversification owing to their low correlation to traditional asset classes (shares and bonds). Their significant volatility gives these products a speculative appeal.

Investment funds and institutional investors have therefore gradually added commodities to the range of instruments they use to diversify financial investments.

They have also become accessible to retail investors via funds and index products mirroring the behaviour of these markets to varying degrees depending on the number of underlying products (funds or tracker funds based on these indices or futures based on composite indexes).

Investors still need to be very experienced, since trading derivatives on an organised market can generate significant gains from a modest initial investment but also has a high risk of loss if the market turns. A few precious materials such as gold and silver are easier to trade. The relative transparency of the market makes them a good portfolio diversification asset.

Provided that you fully understand the rules, investing in commodities has three major advantages:

- Portfolio diversification
- Performances with a low correlation to shares and bonds
- Protection against inflation

3 | What are the main risk components that should be considered when investing in commodities?

3.1 Market risks

Commodities – and particularly the most common form of commodities, i.e. derivatives (futures and options traded on organised markets) – are reserved for very experienced investors because of their high level of volatility and the extremely specialist nature of their underlying assets (seasonality, market announcements and anticipation of production levels, stocks, geostrategic issues for some markets such as oil, copper and other raw materials, climatic variations for agricultural products, etc.).

3.2 Risk associated with leverage

It is possible to obtain leverage on organised markets (initial margin allowing investment in a nominal that is multiple of the initial capital), amplifying the risk of capital loss.

3.3 Counterparty and delivery risks

For materials subject to physical delivery, such as gold, the nature of the transaction (physical or via book entry) determines the nature of the counterparty risk taken by the investor. A book entry to some extent reflects the investor's confidence in the financial future of their bank. Physical ownership, in a safe for example, does not incur the bank's liability in the same way. It is therefore necessary to ask about the type of contract before carrying out transactions, as well as issues of storage and insurance for the assets in the event of physical delivery.

3.4 Country risk and transfer risk

The political and economic climate in certain countries that produce commodities may become unstable, causing significant and rapid fluctuation in prices. Country ratings published in the financial press may be of use to investors in this respect.

3.5 Economic climate risk

Changes in the activity of a company or market economy always have repercussions on movements in prices of financial instruments and exchange rates. Since commodities are closely linked to the economic climate as physical or consumable assets, they fluctuate based on economic peaks and troughs.



4 | What you need to know before investing in commodities

These markets are generally suitable for very experienced investors who can understand the often complex changes in the macroeconomic, political and strategic elements that affect these products.

Like any derivatives, futures and options contracts must be approached with caution, particularly in light of the amplification of gains and losses made possible by leverage.

For investments in funds, index-linked and structured products providing a higher level of portfolio diversification than more traditional markets, special attention must be paid to the product documentation and the composition of underlying indices. It is important for investors to understand and accept the implicit management strategies, as well as the intrinsic characteristics of the structured product (capital guarantee or highly speculative product, etc.).

Finally, although the volatility of each commodity is fairly high, combining several in one basket allows greater control over this volatility to some extent, since commodities in different categories have a low correlation to each other. For investors with more risk-averse profiles, preference should therefore be given to investments in diversified baskets of commodities, to ensure portfolio diversification.

To allow for more secure and/or more diversified access to these markets, banks have adapted their products and now offer undertakings for collective investment (UCIs) allowing diversification of underlying products via composite indices, or certificates or structured funds indexed to these markets. Some even offer products guaranteeing the principal amount, thereby protecting investors from market falls or volatility.

Taxation

It is important that you seek independent advice about the taxation applicable to commodities.

Your advisor is available to provide any further information you may require and will assist you in your choices, according to your personal needs and investment profile, before any investment decisions are made.



INVESTING IN EXCHANGE-TRADED PRODUCTS (ETPS)

1| What is an ETP and what are its main characteristics?

Exchange-traded products (ETPs) are a broad category of listed securities tracking the performance of one or more underlying assets. They encompass exchange-traded funds (ETFs), exchange-traded commodities (ETCs) and exchange-traded notes (ETNs).

ETP		
ETF	ETC	ETN
Provides access to, inter alia:	Provides access to, inter alia:	Provides access to an asset or benchmark using an uncollateralised debt security
■ Equity indices	■ Individual commodities (e.g. gold, oil, agricultural products, industrial metals, etc.)	
■ Commodity indices		
■ Fixed income markets	■ Commodity baskets	
■ Money markets	■ Currencies	
■ Private equity indices		
■ Fund of hedge funds indices		

Source: ETF Securities



Only ETFs, being funds, can be UCITS compliant; ETCs and ETNs are issued not as fund units but as debt securities. As such, ETCs and ETNs can never be UCIs under the UCITS directive, and therefore can never be governed by UCITS regulations.

ETFs can be UCITS-compliant funds if they are created and managed in the European Union by a UCITS-compliant asset manager.

As a consequence, many available ETFs are not UCITS compliant because they are not European or because their issuer has elected not to conform to UCITS requirements. For example, no US ETFs can be UCITS compliant.

Characteristics of ETPs:

	ETF	ETC	ETN
Legal format	UCITS (Undertaking for Collective Investment in Transferable Securities)	Debt securities	Debt securities
Governed by the UCITS directive	Possible	Never	Never
Commodity access	Limited	Yes	Yes
Issuer credit risk	Limited	Limited	Yes
Eligible in a UCITS fund	Yes	Yes	Yes

Source: ETF Securities

1.1 Replication method

ETPs can be structured in two ways: physical or synthetic replication.

Physical replication

A physically replicating ETF owns either all or a sample of the assets that comprise the underlying benchmark. This is known respectively as “full replication” or “sampling replication”.

Full replication

The underlying assets are held in the same proportion as their weighting on the replicated index. This method is used if the underlying assets are readily available, reasonably small in number and do not significantly change (e.g. the 102 shares listed on the FTSE 100, reviewed quarterly).

The main advantage of full replication is that since the product holds the same assets as the index it tracks, the replication is extremely accurate. However, the disadvantage is potentially high transaction costs if the index frequently changes a large number of its components.

Sampling replication

Instead of holding all the assets that make up an index, the product holds a sample of the index's components.

This approach may be used if the benchmark contains a large number of assets which change frequently (e.g. the MSCI World Index, with nearly 300 of its 1,600 securities changing every year) or if these assets have low liquidity.

Transaction costs are lower for sampling replication than they are for full replication. However, because the ETP's holdings differ from those of the index, the product's performance may not be exactly the same as that of the index.

Synthetic replication

Unlike with physical replication, a synthetic ETP does not physically hold the assets on the replicated underlying index. Instead, the ETP issuer enters into a swap agreement with a counterparty that undertakes to pay the performance of the underlying assets. An ETP provider might choose synthetic replication for a number of reasons:

Accuracy: because the return on a synthetic ETP is guaranteed by a counterparty, it can accurately match the performance of the underlying assets.

Cost-effectiveness: a synthetic ETP has limited transaction costs relating to the buying and selling of underlying assets.

Access: non-metal commodities can only be accessed synthetically because of the difficulties associated with storage.

Diversity: synthetic ETP structures offer exposures that cannot be physically replicated, including long or short leveraged products, volatility indices and emerging market securities.

The principal risk of synthetic ETPs is the risk of counterparty default, otherwise known as counterparty risk. If a counterparty defaults on its obligations under the swap agreement, the ETP may not be able to provide the return on the assets it is tracking, potentially incurring losses for investors. To minimise the impact of a default, most synthetic ETFs and ETCs are backed by collateral.

1.2 Performance

The purpose of an ETF is to track the performance of an underlying index. The standard industry risk measures are the tracking error (TE) and the tracking difference (TD).

Tracking error

Tracking error (TE) is a measurement that assesses how closely an ETF tracks an index.

This enables investors to check the stability of the ETF's tracking ability over time. While volatility reflects the overall risk for the ETF's return and is directly correlated to the replicated index's volatility, TE offers an additional measurement that highlights the replication risk, in contrast to market risk.

TE is a key indicator for tactical investors who trade ETFs on a regular basis or hold an ETF for only a few days or weeks.

How TE is calculated:

Standard deviation of the ETF alpha:

$$TE = \sqrt{\text{Var}(r_{\text{ETF}} - r_{\text{benchmark}})}$$

TE and risks

There are three main risk factors that may affect and increase TE:

■ Fees

Higher transaction fees are logically detrimental to alpha and result in higher volatility.

■ Replication method

There is no empirical evidence that any given method produces a better TE. Each method has specific features that may increase the TE.

For physical replication, the rebalancing cost has the biggest impact and can negatively affect the TE, especially for less liquid indices.

Sampling replication may reduce the rebalancing cost for such indices or indices with a large number of securities; however, this may generate a gap between the ETF's composition and the benchmark, hence creating volatility in the TE.

Performance-enhancing practices, such as securities lending, may have a positive impact on the TD, but this may lead to the performance diverging from that of the replicated index.

Theoretically, synthetic replication generates a lower TE due to the nature of the replication process. Nevertheless, this does not exclude additional risk factors that may have a direct impact on the TE, such as the swap cost and structure, which are directly correlated to the weighting and liquidity of the replicated index.

■ Cash drag

The last component is the uninvested cash held in the portfolio due to daily operations. The challenge for a portfolio manager is knowing how to reduce the impact of the residual cash balance on the fund's overall performance.

Tracking difference

Tracking difference (TD) is defined as the total return difference between a fund and its benchmark index over a given period of time.

For a long-term investor, such as a pension fund or a retail investor, the TD between the fund and its benchmark over the target investment period (e.g. one or three years) is of greater importance.

Causes of TE and TD:

Cost is the biggest reason for TE and TD. Given that the total holding cost comprises both fixed (total expense ratio – TER, see section 1.6 below) and variable (bid/ask spreads) costs, such costs may contribute to an absolute difference between a product's return and that of its benchmark (TD), as well as a difference in volatility (TE).

However, there are other causes of TE and TD:

Cost factors affecting replication	Non-cost factors affecting replication
Total expense ratio	Dividend reinvestment
Rebalancing costs	Withholding tax
Swap spread	Sampling replication
Tax	Securities lending

Sources: ETF Securities

1.3 Trading and valuation

ETFs trade like shares in that they are listed on equity exchanges and are thus traded via standard transaction tools. However, the liquidity of an ETF differs from that of a share.

Many investors who are experienced in equity trading tend to use the screen volume as a primary proxy for liquidity. **The trading volume of an ETF may not reflect its accurate liquidity level, however, as it not does include the liquidity of the components of the underlying index**, which can be added as part of the ETF trading process. This is because ETPs can be created in exchange for underlying assets or cash.

Consequently, **ETPs can source liquidity from the tracked underlying assets.**

Unlike a share, pricing is not determined by the supply and demand of a fixed number of units because ETP units can be created to meet demand. Instead, ETPs are priced on the basis of the underlying assets. Arbitrage ensures that ETPs closely track their underlying assets.

Creation and redemption

ETP investors purchase and sell securities on the stock exchange, which is known as the secondary market.

There is also a primary market, on which authorised participants (APs) can trade directly with the issuer of the ETP.

APs are financial institutions able to mobilise the underlying assets or cash needed to create ETP units. Only APs can create or redeem ETP units. They are typically investment banks or specialised market-makers.

The latter are financial institutions that quote prices for an asset in order to provide liquidity for it. They aim to profit from the bid/ask spreads.

E.g. BNP Paribas Easy APs and market-makers (December 2017):

AUTHORISED PARTICIPANTS	ABN AMRO	HYPOVEREINSBANK
	Banca IMI	IMC
	Barclays	Jane Street
	BNP Paribas Arbitrage	JP Morgan
	Citadelle	KCG
	Citi Group	Kepler
	Commerzbank	Merrill Lynch
	Crédit Suisse	Morgan Stanley
	Deutsche Bank	Natixis
	Flow Traders	Optiver
	GFI	Société Générale
	Goldenberg	Susquehanna
	Goldman Sachs	Timber Hill
	HSBC	Virtu Finance
MARKET-MAKERS	BNP Paribas Arbitrage	KCG
	Citigroup Global Markets	Morgan Stanley International
	Commerzbank AG	Optiver V.O.F.
	4700 Flow Traders	Société Générale
	Hypovereinsbank	Susquehanna Intl Sec LTD
	IMC	

Creation process

The AP submits an application to the ETP provider to purchase (i.e. create) units.

The AP then delivers the underlying reference assets or the cash equivalent to the ETP provider.

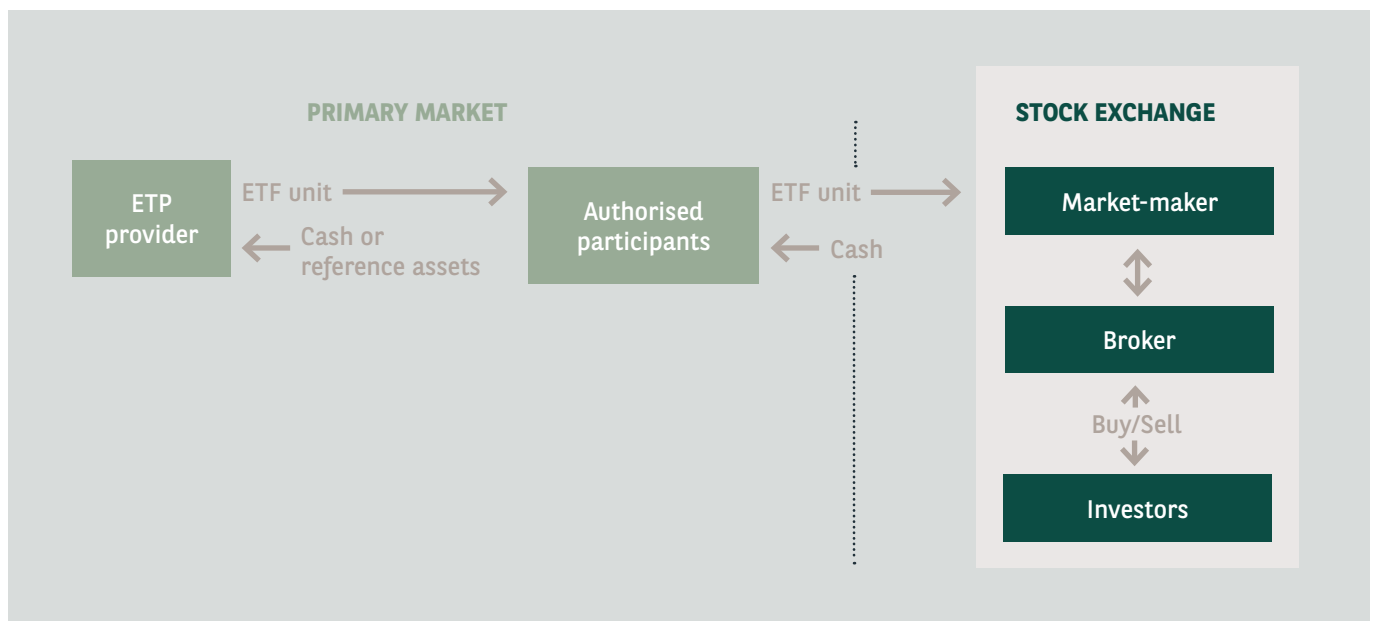
For example, if the ETP tracks the FTSE 100 index, the AP will deliver the FTSE 100 constituent shares according to their weighting in the index or the cash value of such shares.

In exchange, the ETP provider transfers the same value in ETP units to the AP, which can then sell them to intermediaries and investors on the stock exchange.

Redemption process

The AP submits an application to the ETP provider to redeem (i.e. cancel) units.

The provider delivers the underlying reference assets or the cash equivalent to the AP. In exchange, the ETP provider cancels the same value in ETP units.



1.4 Valuation and arbitrage process

In theory, the price of an ETP should be determined by its net asset value (NAV) divided by the number of units. The NAV fluctuates according to the price movements of the underlying assets which, in turn, alter the price of each ETP unit.

ETCs have no NAV. Instead, the price of a metal ETC is determined by the number of rights multiplied by the spot price of that metal. The spot price fluctuates according to supply and demand for the underlying metal.

If supply and demand for an ETP causes it to trade away from its NAV value, an arbitrage opportunity arises:

- If the ETP price is greater than that of the underlying assets, the AP can buy the underlying assets and exchange them for ETP units. These units can then be sold to intermediaries and investors. Since the ETP units are worth more than the underlying assets, the AP makes a profit.
- If the ETP price is less than that of the underlying assets, the AP can buy the ETP units and exchange them for the underlying assets. These assets can then be sold to intermediaries and investors. Since the assets are worth more than the ETP units, the AP makes a profit.

With ETPs, the creation/redemption process allows an arbitrage operation to take place. The AP can continue the arbitrage until there is no price difference between the ETP's NAV and the underlying assets; i.e. until the arbitrage process is no longer profitable. This ensures that ETPs can only trade away from their NAV for short periods.

1.5 Securities lending

Securities lending is used in most fund structures, including index-linked and active funds, segregated mandates and physical or synthetic ETFs. If carried out in a properly controlled environment, it is considered a low-risk activity.

However, there may be significant differences in the returns generated, the risk management standards and the level of transparency provided in different securities lending programmes.

For a fund investor, the primary benefit of securities lending is the extra revenue generated, which in some cases may significantly offset the cost of holding an ETF. Investors should consider the additional revenue generated by securities lending as an important factor when making an investment decision.

The way in which securities lending is conducted by various fund providers may differ significantly. It is critical **that providers are transparent about their process, risk management and revenues generated** to give investors the key information they require to holistically assess the risk/return profile of the securities lending programme.

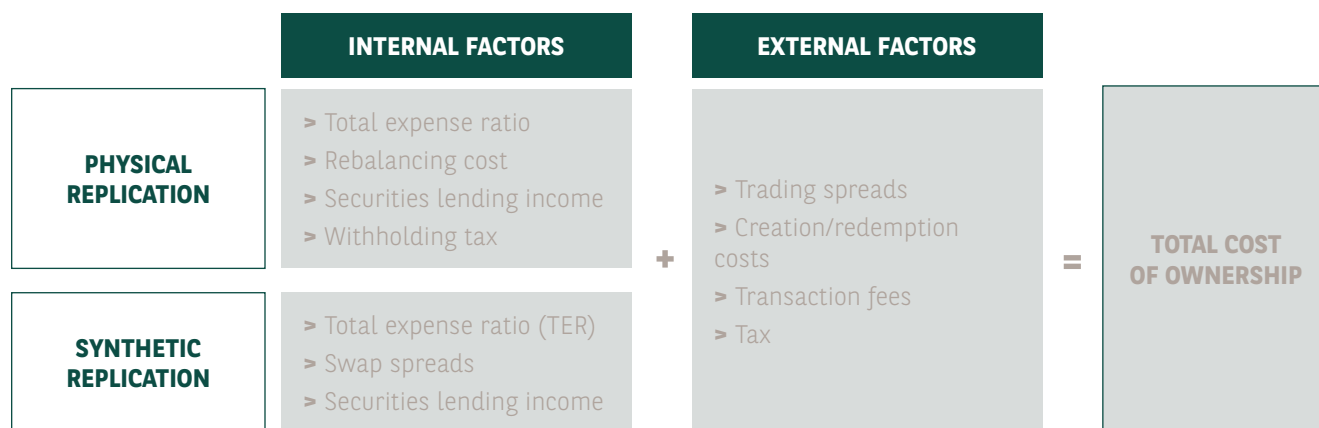




1.6 Costs and performance

Cost is one of the most important factors to consider when making an investment. While performance is difficult to predict, costs are not. Unfortunately, ETP costs are not always transparent.

The most widely reported cost figures are ongoing charges or the total expense ratio (TER), but these are often incomplete if any internal and external expenses (transactions costs, swap spreads and bid/ask spreads on exchanges) are not included.



Source: BlackRock

1.7 Key factors to consider when choosing an ETF

	Physical ETFs	Synthetic ETFs	Physical ETCs	Synthetic ETCs	ETNs
Market risk	•	•	•	•	•
Tracking difference	•	•	•	•	•
Tax	•	•	•	•	•
Costs	•	•	•	•	•
Currency	•	•	•	•	•
Securities lending	(•)				
Sampling	(•)				
Counterparty risk	(•)*	•	•	•	•
Credit risk					•

* = where there is securities lending () = where applicable

Source: ETF Securities

2 | Why invest in ETFs?

- **Access to all asset classes.**
- **Listed on all major exchanges** in a range of trading currencies.
- **Immediate market access** through a single transaction.
- **Cost effectiveness:** lower TER than active funds.
- **Simplicity:** trades on exchanges like a share. Held in brokerage or bank custody accounts.
- **Flexibility:** choice of benchmark index, structure, trading venue, dividend distribution etc. ETFs are used by a wide range of investors.

3 | What are the main risk components that should be considered when investing in ETFs?

ETFs are tracking instruments: their risk profile is therefore comparable to a direct investment in the benchmark index. Investors' capital is fully at risk and they may not recover their initial investment.

3.1 Replication risk

ETFs are designed to replicate the performance of a benchmark index. Unexpected events relating to the constituent assets of the benchmark may impact the index provider's ability to calculate the benchmark, which in turn may affect the ETF's ability to replicate it effectively. This may create a tracking error in the ETF.

An ETF's benchmark index may be complex and volatile. When investing in commodities, the benchmark is calculated with reference to commodity futures, which can expose investors to risks related to the cost of carry and transportation. ETFs exposed to emerging markets carry a greater risk of potential loss than investments in developed markets because they are exposed to a wide range of unpredictable risks.

Holders of synthetic ETFs may be exposed to risks resulting from the use of OTC swaps. The counterparty bank arranging the swap may not be in a position to pay the performance of the index.

Physical ETFs may be exposed to counterparty risk if there is a securities lending programme.

3.2 Foreign exchange risk

ETFs may be exposed to foreign exchange risk if the currency of the ETF or of the underlying assets that make up its benchmark index is different to that of its benchmark. This means that exchange rate fluctuations could have a negative or positive effect on returns.

3.3 Liquidity risk

Market liquidity may be limited as a result of:

- A suspension in the underlying market represented by the ETF's benchmark.
- A system failure on one of the relevant stock exchanges, or with a market-maker or,
- An abnormal trading situation or event.

3.4 Risk linked to leveraged ETFs

These instruments carry specific risks that investors should consider before investing.

Leveraged ETFs are only intended for knowledgeable investors who:

- Understand the mechanism of leveraged ETFs and accept the risk of incurring substantial losses over a short period of time.
- Understand the characteristics and specific features of leveraged ETFs.
- Monitor their portfolio daily and react to changing market conditions and the ETF's performance.

Leveraged ETFs are not intended for risk-averse or conservative investors who:

- Are unable to bear the loss of some or all of their capital over a short period of time.
- Are unfamiliar with the characteristics and specific features of leveraged ETFs.
- Do not monitor their portfolio daily These types of investment are generally not designed for a buy-and-hold strategy.

4 | Glossary

Optimisation and sampling

Optimisation and sampling are often the options selected by ETF providers when full replication is deemed less attractive because of total replication costs. Hence ETF providers will use “optimisers” to select a subset of the index securities, thereby retaining similar exposure and similar risk characteristics to those of the index. While this practice reduces the cost, it can also cause a slight deviation from the index, which is often mitigated by ETF providers. It is important to keep in mind the risk that optimisation can lead to a lower performance than that of the index, thereby offsetting the gains from lower transaction costs.

Securities lending

ETFs can use the assets they hold to achieve additional sources of income. The lender is compensated with a fee, and the loaned assets must be returned at the end of the transaction.

ETF providers select a maximum percentage of securities that can be loaned from the total portfolio, with specific requirements as to the nature of the collateral and/or the list of securities eligible for lending. Then they delegate the transaction management to a lending agent. Revenue is split between the lending agent and the ETF. It is important to assess all these elements to have a comprehensive view of the security lending process.

Yield enhancement

To enhance yield, the fund’s objective is to obtain a favourable withholding tax rate on net dividend returns in comparison to the replicated index. ETF providers often choose the domiciliation of their funds with a view to benefiting from local tax rates. For example, most UK providers domicile their funds in Ireland.

Securities lending can also enhance yield by way of a temporary assignment of foreign securities to a local investor at the time of dividend payments.

Expense ratio

The expense ratio includes the ETF costs known ex-ante, i.e. administration and management fees (on an annual basis). However, it does not include additional transaction costs or swap fees (in the case of synthetic replication).

Annualised index performance

The official performance of the index tracked by the ETF, calculated over the given period and annualised over 365 calendar days.

Annualised ETF performance

The performance of the ETF based on official NAV, calculated over the given period and annualised over 365 calendar days.

Tracking difference (TD)

The difference between the annualised performance of the ETF, based on the official NAV, and of the replicated index, over a given period.

Worst 1-year cumulative return difference

This provides a statistic for a 1-year investment.

It corresponds to the lowest (i.e. worst) cumulative return difference between the ETF and its underlying index over a period of 365 consecutive calendar days, over a given period.

Best 1-year cumulative return difference

This provides a statistic for a 1-year investment.

This corresponds to the highest (i.e. best) cumulative return difference between the ETF and its underlying index over a period of 365 consecutive calendar days, over a given period.

Tracking error

This indicator of relative risk corresponds to the annualised volatility of the daily return difference between the ETF and its replicated index over the given period. The volatility is annualised over 260 days (daily volatility multiplied by the square root of 260).

Average daily return difference

The average of the daily return difference between the ETF and its replicated index over a given period.

Worst daily return difference

The worst daily return difference between the ETF and its replicated index over a given period.

Market capitalisation

The market capitalisation calculated at the end of a given period is equal to the total number of available ETF units multiplied by the official NAV on the last date of the given period.

One-month ADV

The average daily volume (ADV) of shares traded on the market during the previous month.

Your BGL BNP Paribas advisor is available to provide any further information you may require, to supply you with BNP Paribas’ ETP investment recommendations, and to assist you in your choices, according to your personal needs and investment profile, before any investment decisions are made.

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