Chapter 2
Collective Investment Vehicles and Other Asset Management Products

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2.1 Asset Management Products

This chapter looks at the economic, technical and regulatory issues of asset management products, with particular attention paid to collective investment vehicles (CIVs), through an analysis of the different categories of CIVs, their technical features and management strategies, as well as the restrictions to their investment decisions, their public documentation and charges.

The final part of the chapter examines the other types of asset management products which have a high rate of substitutability with CIVs, to which we may apply part of the economic and technical considerations made previously with regard to CIVs.

2.2 Collective Portfolio Management

Collective portfolio management is the activity accomplished through:

– The promotion, establishment and organisation of CIVs and the administration of relations with the participants;
– The management of CIV assets by investing the assets under management in financial instruments, credits and other financial or real assets;
– The distribution of units or shares of CIVs.

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I. Basile, P. Ferrari (eds.), *Asset Management and Institutional Investors*,
DOI 10.1007/978-3-319-32796-9_2

In the various countries, the service of collective portfolio management is subject to legal restrictions and may be practised only by specific categories of financial intermediaries. In the member states of the European Union, collective portfolio management can only be performed through:

- Regulated schemes that are recognised in each member state;
- Harmonised collective schemes which, according to European Union rules, once authorised by the supervisory authority in their home member-state, can offer their services in the various European Union countries either by opening branches or thanks to the EU-wide freedom to provide services.[1]

There are three basic legal structures for conducting collective portfolio management:[2]

- The contractual form, according to which the CIV is not a separate legal entity in its own right, but is instead the management company setting up the common fund. In this form, there is a contract under which the management company invests the money raised on behalf of final investors who own units of the common fund;
- The trust form, where the CIV is organised as a trust, a concept of Anglo-Saxon law according to which an identified group of assets is constituted and owned by a trustee for the benefit of another party (the beneficiary). Investors are beneficiaries of the trust and own units of the trust;
- The corporate form where the CIV is a separate corporate entity and investors are shareholders of this entity. This is the case of open-end investment companies (OEICs), known in many countries by the equivalent French expression or its acronym SICAV,[3] and is also the case of closed-end investment companies, also known using the short form of the French term SICAF.[4]

Some countries allow for only one legal form of collective investment vehicles, while others allow for more than one legal structure.[5]

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[1] In the area of collective investment schemes, current European regulation covers four types of harmonised investment funds: undertakings for collective investment in transferable securities (UCITS), the main European framework covering collective investment schemes; alternative investment fund managers (AIMF), covering managers of alternative investment schemes, mainly addressed to professional investors; European venture capital funds (EuVECA), a sub-category of alternative investment schemes that focus on start-up companies; European social entrepreneurship funds (EuSEF), an investment scheme that focuses on all kinds of enterprises that achieve proven social impacts.

[2] In this chapter we will generically refer to investment funds and considerations, when possible, will be applicable to all three types of CIVs.

[3] Short for "Société d'investissement à capital variable". In some countries, this legal structure is also known as an "investment company with variable capital" or its acronym ICVC and in the United States of America as a "mutual fund".

[4] Acronym of "Société d'investissement à capital fixe".

[5] By value, corporate entity CIVs dominate the asset management sector worldwide, largely due to the scale of the US market, where open-end corporate CIVs, known as "mutual funds",

With regard to the scope of the management company activity, and in order to take into account national law and enable such companies to achieve significant economies of scale, European Union rules encourage each member state to allow management companies to pursue the following activities:

– Individual portfolio management, on a client-by-client and discretionary basis;[6]
– The setting-up and management of pension funds;
– The provision of advisory services relating to investments;
– The marketing of CIVs to third parties.

2.3 Investment Funds

An investment fund is a vehicle that allows a number of separate and unrelated investors, which may be a group of individuals or companies, to make investments together. By pooling their capital, investors can share costs and benefit from the advantages of investing larger amounts, including the possibility of achieving a broader diversification among a number of different assets and thus spreading their risks.

Depending on the amount invested, each participant in the fund holds a number of units, all of equal value, and participates in the profits and losses in proportion to the number of units held. The unit represents an equal fraction of the fund's net assets, whose value is calculated dividing the amount of net assets by the number of units outstanding.[7]

Each investment fund is a separate and independent pool of assets, distinct in all respects from the assets of the management company and of each participant, as well as from any other fund managed by the same company. An investment fund can also be organised as an umbrella scheme with separate sub-funds with segregated assets and liabilities.[8] The investment fund (or sub-fund) meets the

predominate. In some European countries, on the other hand, the contractual form is predominant. OECD (2001), St Giles et al. (2003) and Loader (2007).

[6] Specific rules should be laid down, however, to prevent conflicts of interest when management companies are authorised to pursue the business of both collective and individual portfolio management.

[7] In the case of investment companies, units of the CIV are shares.

[8] If an investment fund adopts the umbrella scheme, it comprises separate sub-funds, divided by type of asset class, specialised in different geographic areas or characterised by a different style of management. The umbrella funds have traditionally benefited from the advantage of offering the investor the possibility to switch from one sub-fund to another with great simplifications from the regulatory, tax and charge point of view, although more recent regulations have significantly reduced the differences between single funds and umbrella funds. Both single funds and umbrella funds can adopt a multi-class scheme. All the classes of the same fund or sub-fund invest in the same pool of securities and have the same investment objectives and policies, but each class may have different fees and expenses, may be reserved to special categories of investors, may have

obligations contracted exclusively with its assets, on which no actions are possible, either by creditors of the management company or by creditors of the depositary institution. The actions of creditors of individual investors are allowed only on the units held by them.

The operation of an investment fund is based on four types of essential activities:

– Promotion, establishment and organisation of the fund and administration of the relationship with the participants;
– Investment of financial resources collected;
– Custody of financial instruments and liquidity in the fund's portfolio;
– Distribution of the fund units.

The first activity is carried out by a management company that promotes, establishes, and organises the fund, and administers the relationships with unit-holders.[9]

The second activity is performed by a management company which may (and often does) coincide with the company that has promoted and established the fund, but may also be different. In the latter case, two different management companies are involved, one responsible for managing the administrative relationships with the participants and the other responsible for managing investments. In fact, on the basis of mandates, a management company may delegate specific tasks and functions to third parties so as to increase the efficiency of the conduct of its business.[10]

The third activity is entrusted to a depositary institution, which has custody of the CIV's financial instruments, holds the liquidity and keeps a register of all movements. The depositary institution carries out the operational and accounting control, guaranteed by the subject involved in managing the funds being separate from the subject entrusted with custody. The depositary acts independently and in the interest of the CIV investors. More specifically, the depositary institution:

– Verifies the legitimacy of the operations of purchase, redemption, and switch of the CIV units, as well as the destination of incomes from the CIV;
– Checks that the calculation of the net asset value of the units is correct or provides for that computation at the request of the management company;

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different income distribution arrangements, may be denominated in a different currency, and may hedge the currency risk or not. A multi-class scheme offers investors the possibility to select the most appropriate class for their investment goals.

[9] The present description is specifically referred to common funds, but the same considerations can be applied to both unit trusts and open-end investment companies (OEICs). Sections 2.5 and 2.6 contain a more detailed description of the specific features of unit trusts and OEICs.

[10] In order to guarantee a correct functioning of the home country control principle, EU member states permitting such delegations should ensure that the management company to which authorisation is granted does not delegate all its functions to one or more third parties, so as to become a "letter-box entity", and that the existence of mandates does not hinder effective supervision of the management company. However, the fact that the management company has delegated its functions should not affect the liabilities of that company, or of the depositary institution vis-à-vis the unit-holders and the competent authorities.

– In all operations involving the CIV, verifies that the counter-obligation is fulfilled within the agreed deadlines;
– Carries out the management company's instructions, unless they conflict with the law, the requirements of the supervisory bodies or fund rules;
– Monitors the CIV's cash flows.

The depositary institution is answerable to the CIV and investors for any prejudice they may suffer as a consequence of non-fulfilment of its obligations. Unless the depositary institution can prove that the loss was caused by accident or by force majeure, if the depositary institution should lose the financial instruments in its custody, it is obliged to replace them with financial instruments of the same kind, or with a sum to the corresponding amount, and shall be held liable for any other loss sustained by the CIV or investors consequent to the failure to respect its obligations, whether intentional or due to negligence.

The fourth activity is the result of recent European Union legislation which has broadened the definition of collective investment management to include the distribution activities of investment funds so as to improve the efficiency of the distribution network, to promote the creation of a direct channel and to reduce the overall costs borne by investors.

From the investor's point of view, when compared to investing directly in individual shares, bonds and money market instruments, investing through CIVs offers the following benefits: [11]

– Greater diversification and thus lower risk, regardless of the amount of capital invested;
– Access to a professional management service;
– Superior liquidity of the investment, at least for open-end funds;
– Greater transparency of information than other financial products, both in the underwriting phase and in the course of the investment, despite the considerable efforts of supervisors to bridge this gap between CIVs and many other financial instruments;
– Better protection, compared to other financial products, thanks to the fund assets being separate and segregated from the management company assets that runs it, and to the presence of a depositary institution which carries out accounting and operational control.

2.3.1 Investment Fund Classification

In order to fully understand the characteristics of investment funds and their specificity, it is useful to classify them on the basis of a set of alternative

[11] Turner (2004) and Haslem (2010).

parameters. First of all, depending on the mode of entry and exit, it is possible to distinguish between:

– Open-end investment funds, and
– Closed-end investment funds.

In open-end investment funds, purchases and redemptions may occur at any time. At any valuation date of the unit, the participant may subscribe new units of the fund, or request redemption of all or part of the units held. The total capital of the fund is therefore variable and depends on the combination of new subscriptions and redemptions produced daily or periodically. The company that manages the open-end fund must provide for reimbursement of the units within the maximum legal time-limit established by law and by the fund rules.

In the case of closed-end investment funds, the total capital of the fund to be subscribed is fixed when the fund is launched, and redemptions can take place only at predetermined maturities. Therefore, the number of units in these funds is fixed and does not vary as a result of new subscriptions and/or redemptions. Redemption before the deadline for repayment is impossible. Investors can only transfer their units to other investors through the sale of units on the secondary market, with liquidity problems and difficulty identifying a counterparty if the fund is not listed on a regulated market. This type of investment fund is particularly suitable when the object of the investment cannot be liquidated quickly without significant loss of value, as in the case of real properties (real estate funds) and equity participation in unlisted companies (private equity and venture capital funds).

Depending on the object of the investment, it is possible to distinguish:

– Investment funds specialised in financial instruments, and
– Investment funds specialised in real estate.

The former invest in transferable securities and other financial instruments, while the latter invest in real properties, property rights and real estate companies.

Depending on the mode of allocation of incomes, it is possible to distinguish:

– Investment funds that accumulate incomes, and
– Investment funds that distribute incomes.[12]

In the first case, the income received periodically by the fund is reinvested in the fund's assets, while in the second case, the income is periodically distributed to unit-holders.

Depending on the country in which they are located, taking the perspective of the investor and making specific reference to the European Union member countries, it is possible to distinguish:

[12] Fund rules indicate whether the management company reinvests periodical incomes received by the fund (accumulation fund) or whether it pays them to unit-holders every year, semester, quarter or month (income fund). In the latter case, fund rules define the criteria and procedures for determining and allocating income to unit-holders.

– National investment funds, and
– Foreign investment funds.

National investment funds are established according to the law and rules in force in the investor's country of residence. In several countries, the most popular are open-end funds that invest in transferable securities.

Foreign investment funds are established abroad, in countries other than that of the investor's residence. Contrary to what might be expected, this second category does not only include the funds of foreign companies placed in one country in competition with national companies. In many cases, it is also about "national funds abroad" or round-trip funds, i.e. funds created abroad by banking, financial and insurance groups from the different countries, but aimed largely at domestic participants from the same country as the banking, financial and insurance group that established them abroad. In the recent past, one of the most important reasons for setting up management companies abroad, has been the opportunity it provided to the same management companies to benefit from favorable tax effects on their income and a more favorable regulatory environment.

Assuming the perspective of the European Union investor, based on compliance with the provisions of European Union directives on the free movement of funds in member countries, it is possible to distinguish:

– Harmonised funds, and
– Non-harmonised funds.

Harmonised funds are based in one of the European Union countries and at the same time meet the requirements laid down by the European Union directives. They benefit from an EU-wide "passport", which means that once they are authorised in one member state, they can be sold in any other member state without needing any additional authorisation.[13]

Non-harmonised funds include those funds that are located in European Union countries but do not meet the requirements set by the Community directives and all funds domiciled outside the European Union, regardless of their characteristics.

Since 1985, many Community directives have appeared on the subject of investment funds, with the aim of creating a uniform regulatory framework within all the EU member states (Table 2.1). These directives have progressively harmonised the laws of member countries, with particular attention to the category of open-end funds, which invest in transferable securities and raise capital by promoting the sale of their units to the public within the European Union or any

[13] As already stated, the current rules cover four types of harmonised funds: undertakings for collective investment in transferable securities (UCITS), the main European framework covering collective investment schemes; alternative investment fund managers (AIMF), covering managers of alternative investment schemes which are mainly aimed at professional investors; European venture capital funds (EuVECA), a sub-category of alternative investment schemes focusing on start-up companies; European social entrepreneurship funds (EuSEF), an investment scheme that focuses on all kinds of enterprises that achieve proven social impacts.

Table 2.1 The evolution of European Union directives on UCITS funds

The European directive UCITS I, issued at the end of 1985, represented the first effort towards the creation of a single market for investment funds in the European Union. This directive provided for the free movement of certain investment funds throughout the Union, under mutual recognition, on condition that they were open, invested at least 90 % of net assets in transferable securities, were promoted to the public of the European Union or a part of it and respected many prohibitions and limitations in implementing their investment policy. In fact, all these restrictions and prohibitions affecting the investment policy of UCITS funds, together with the great discretion granted to individual member states in transposing the Directive, have come to represent the main shortcomings of the directive UCITS I as regards the creation of a real single market for investment funds. The second European directive UCITS II, developed in the early 1990s with the aim of completing the path laid out by the UCITS I directive and therefore containing a series of proposed improvements, was never approved, since it was considered over-ambitious and too complex. It was not until 2001 that two new directives were adopted which together constitute the measures known as UCITS III. While the first directive focused on the operational and managerial aspects of investment funds and the simplification of prospectuses, the second regarded the rules of investment diversification and risk spreading. These two directives introduced the so-called "European passport" for management companies according to which companies already authorised in their home country of origin were able to exercise the activities covered by the directives in any member state, either thanks to the freedom to provide services or through branches. UCITS III defined the new European standards for the realisation of the legal documentation and sales, thereby providing greater transparency, completeness and simplicity: in particular, it made it obligatory to publish a simplified prospectus with standardised features, in addition to information documents. UCITS III expanded the range of investments that could be held by investment funds, while introducing the obligation to implement a rigorous and thorough process of managing and controlling risks associated with investing. The UCITS IV directive of 2009 significantly innovated prior regulations in order to achieve multiple objectives. Firstly, it was aimed at transposing demands coming from the market, significantly simplifying cross-border distribution; secondly, it was designed to favor the reduction of management costs; finally, the aim was to provide investors with a simpler, more comprehensible disclosure. In this regard, the UCITS IV directive provided for the following changes: – The introduction of a complete European passport, – Simplification of the notification procedure between the various supervisory authorities, – Facilitation of procedures for the merger of UCITS funds, – Institution of the master-feeder structure, and – Introduction of the key investor information document (KIID). With UCITS IV, the European passport which had already been introduced by UCITS III came to full maturity, being linked not only to distribution, but also to the management of funds. In fact, an asset management company established in a European Union country and authorised to practise collective portfolio management in that country, is allowed both to market its own funds in all other member states and to manage funds set up in another member state, without having to resort to any delegation management or set up a subsidiary in the host country. Another novelty of UCITS IV is the initial phase of distribution in another member country: in the past, in every country of the European Union there was an *ex ante* control by the competent national supervisory authority, under which foreign funds could be distributed in a country other than that of establishment only after a certain period of time, necessary for supervisory authorities to carry out controls. This delay between the time of the notice of the authorisation and the actual distribution of the funds represented a disadvantage when compared to other financial products offered to investors, often subject to less strict controls. UCITS IV directive intervened

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Table 2.1 (continued)

on this point in order to shorten waiting times and costs for the management companies. Now, in order to benefit the cross-border operation, there is a simple direct notification between supervisory authorities of the countries involved. The great innovation introduced by UCITS IV concerns the possibility of mergers between UCITS funds, which makes it possible for two harmonised funds with the same investment objective to merge, regardless of their legal form and whatever their EU country of origin: in fact, there may be cross-border mergers (between two funds established in different member states) or domestic mergers (between funds of the same member state). These facilities at the merger processes are intended to contribute to the effective functioning of the complete European passport, since the fund affected by the merger can circulate within the European Union. The purpose of this change is to increase the assets under management and reduce costs for management companies, promoting economies of scale and making European funds more competitive, since they are currently at a disadvantage compared to US funds, which tend to be considerably larger in size. The merger processes described above favor the centralised management of multiple funds by management companies with so-called master-feeder structures, which are designed to encourage the growth in size of harmonised UCITS, and allow them to gain significant economies of scale. They are characterised by the presence of a feeder fund which, despite the provisions on investment limits, is authorised to invest at least 85 % of its assets in units of another investment fund, the so-called master. The remaining 15 % of the assets of the feeder fund can be invested either in the same master fund or in cash and/or derivatives for hedging purposes. The master fund is characterised by numbering among its participants at least one feeder fund, by not being itself a feeder and by not holding units of a feeder. The purchase of master fund is reserved to feeder funds. The two types of funds may be managed by the same management company as well as by different management companies. The master-feeder structures may have a purely national importance, if they are composed of investment funds set up in the same member state of the European Union, or cross-border, in the event that master and feeder funds are established in different member states. Another important innovation introduced by the UCITS IV directive for harmonised funds concerns the replacement of the simplified prospectus, introduced by the previous UCITS III directive, with another document—the key investor information document (KIID)—containing all relevant information for investors. The purpose of the KIID is to offer the investor a document which is easy to understand and can illustrate the salient features of the investment in two pages, so as to make the participants fully aware of the fund's specific characteristics (including costs and risks). A further development of the European Union framework for UCITS funds came in 2014 with a directive that the market has renamed UCITS V, although, objectively speaking, its scope is much narrower than the previous guidelines. This directive has three principal objectives: strengthening the rules on the liability of the depositary institution; introducing requirements on remuneration policy within the management company; and harmonising administrative sanctions within the provisions of individual national supervisory authorities for violations of Community rules as introduced by the different UCITS Directives.[a]

[a]UCITS I is the directive 85/611/CEE. UCITS III rules are contained in the management company directive 2001/107/CE and in the product directive 2001/108/CE. UCITS IV is the directive 2009/65/CE of the European Parliament and the European Council of 13 July 2009. Finally, UCITS V is the directive 2014/91/EU of the European Parliament and the European Council of 23 July 2014. This last directive was introduced into the various member states by 18th March 2016

part of it. If these funds implement investment policies within the limits and restrictions laid down in those directives and incorporated in various national regulations, they benefit from the status of harmonised funds, known in the language of the European directives as "Undertakings for collective investment in transferable securities" (UCITS) status. In the case of UCITS funds, in order to comply with the European Union directives, these must be open-end, invest in financial instruments, not be reserved to qualifying investors and adopt investment policies in line with the criteria for investment diversification and risk spreading provided by the same directives. When a European Union fund gets this status, it also becomes entitled to free movement in the various member states.

UCITS funds are now regarded globally as efficiently regulated funds, with a strong emphasis on investor protection. As a result, the UCITS status is recognised beyond the European Union and UCITS products are accepted for sale in many countries in Asia, the Middle East and Latin America.

Finally, maintaining the perspective of an EU-based investor, according to where they are marketed, foreign funds can be divided between:

– Investment funds marketed in the state of the investor (so-called authorised funds), and
– Investment funds not marketed in the state of the investor (so-called unauthorised funds).

In the former case, the fund is authorised for marketing in the investor's country of residence, and in the case of harmonised funds, this means that distribution is possible in all European Union member states without prior authorisation simply on the basis of mutual recognition, following prior notification sent from the supervisory authority of the country of origin, in accordance with the provisions of the UCITS IV directive. In the case of non-harmonised European Union funds and non-European Union funds, specific authorisation is required from the competent supervisory authority in the host country, on condition that the investment fund's operating schemes are compatible with those regulated by the national law.

In the latter case, funds are not subject to distribution in the country of residence of the investor, resulting in a prohibition of solicitation of public savings, although in a system allowing free movement of capital, this does not impede the investor from allocating part of his wealth to a fund not located in his own country and buying it abroad directly, in accordance with the rules of law, tax and financial monitoring operative in that country.

Below, close attention will be paid to the case of open-end investment funds, since these funds play a predominant role in the industry. Table 2.2 contains a summary of the characteristics of certain specific types of investment funds. Specific considerations are made in Chap. 13 for closed-end funds specialised in private equity and venture capital, while Chap. 14 makes detailed reference to the case of real estate funds. A complete analysis of hedge funds is provided in Chap. 11.

Table 2.2 Some specific types of funds

Qualifying investor funds
Qualifying investor funds may be structured as open-end or closed-end. Fund rules provide that participation is reserved to "qualified" investors, specifying the characteristics they must hold to participate in the fund. Qualifying investor funds have greater flexibility in investment policy, since they may waive the prudential limits stated for UCITS funds.
Funds of funds
Funds of funds are investment funds that allocate the capital raised in other investment funds. If a fund of funds invests only in funds managed by the same management company, it is called a "fettered" fund of funds. If it invests in external funds run by other management companies, it is called "unfettered" and embraces a multi-management approach.
Guaranteed funds
Guaranteed funds assure investors that, at a specified time, they will be paid at least the value of the initial investment, even if the development in capital markets is unfavourable. If capital markets grow, the investor will participate in their development. The guarantee is usually based on an insurance policy taken out in favor of the fund. In guaranteed funds, the management company assumes an obligation of result.
Protected funds
Protected funds have an investment policy designed to protect the value of the investment, pursued through the application of quantitative techniques of investment management and the limitation of losses. There is no guarantee that the value of the investment will not fall below the level of protection. In this case, the management company assumes an obligation of means but not of result.
Ethical (or SRI) funds
Ethical funds or socially responsible investment (SRI) funds have an investment policy that bans the purchase of a set of securities that do not respect ethical standards and/or selects securities on the basis of criteria other than solely the maximisation of the expected return and/or adheres to an investment process according to principles other than the sole optimisation of the risk-return combination.
Index funds
Index funds are investment funds with an investment policy aimed to replicate the risk-return profile of a market index calculated by third parties.

2.3.2 Open-End Investment Funds

The key elements that characterise participation in an open-end investment fund are:

– Purchase of units,
– Redemption of units,
– Switching,
– Valuation of units, and
– Investment objective and policy.

Participation in the fund is achieved through the subscription of units of the fund, which can be done in two ways: by immediate payment of the full value of the units the investor has decided to buy (a capital investment plan) or by spreading the investment over time by subscribing to a capital accumulation plan (a savings plan).

In a capital investment plan, the purchase of units is carried out in a single installment and in one operation. The investment must be at least equal to the minimum required by fund rules and also indicated in the prospectus. The minimum amount of the subscription varies depending on the management company and can also vary within the same management company, depending on the fund considered.

In a savings plan, the subscriber shares out the investment over time through a series of periodic payments, each of the same amount, the number of which may range, at the discretion of the subscriber, between a predetermined minimum and a maximum.[14] The accumulation plan may be suspended or terminated at any time. However, early redemption of the plan often involves higher subscription charges in relation to the amount invested.[15]

The number of units to be attributed to each participant is determined by dividing the amount of the capital invested, net of any entry charge and any fixed cost, by the net asset value on the reference date i.e. the day when the management company received confirmation of the subscription or, if later, the day of the value date recognised to the means of payment used for the subscription. Conventionally, the application for subscription received within a preset time (cut-off time) is deemed to be received on a given day indicated in the prospectus of the fund.[16] In this regard, the management company is obliged to define procedures for subscription and redemption of units so as to avoid the risk of individual participants benefitting at the expense of the fund or other participants, as has happened in some financial systems in the past.[17]

On receipt of each subscription, the management company sends the subscriber a letter of confirmation containing the information regarding the date when the subscription request was received, the gross amount paid and the net amount invested, the date of entry, the unit value and the number of units assigned.

Units of the investment fund can be registered or bearer, as provided in fund rules. If units are not intended for dematerialisation, the participant can always request issue of the representing certificate—both at purchase and afterwards.

[14] The contract of adhesion to a saving plan shows the total value of the investment, the number of payments, the amount and the timing of payments.

[15] This is tied to the procedures used for the calculation of the subscription fees in capital accumulation plans.

[16] The distributor must submit the application for subscription and means of payment no later than the day following the date of signing.

[17] For a discussion of possible forms of arbitrage (late trading and market timing) to the detriment of investment fund unit-holders, practised in the US financial system in the past, and for an analysis of the solutions adopted by the American Securities and Exchange Commission, one can refer to Haslem (2009) and McCabe (2009). In the case of late trading arbitrage, the subscription of units of the fund near the end of trading was settled, for some privileged customers, at the price of the current day or the next day, according to the market trend. In the case of market timing arbitrage (or time zone arbitrage), time differences were exploited, together with the related opportunities for arbitrage, especially as regards foreign shares and other foreign securities.

In the case of open-end funds, investors can request the redemption of units held at any date of valuation. The request for reimbursement must be submitted or sent by the investor to the management company directly or through an entity in charge of the distribution which shall forward it to the management company no later than the first working day after receipt.[18]

In case of redemption, the amount to be repaid is determined starting from the net asset value on the day the management company receives the application for reimbursement, or, if that happens to be a day when the unit is not valued, on the first day of calculation thereafter. The fund rules define the criteria for identifying the day of receipt, and also indicate the cut-off time within which the application must be received by the management company. The management company is obliged to settle the investor the amount due within the period stated in fund rules.

The participant may also request a planned redemption of units, indicating: the date from which he will effect the repayment plan; the periodic intervals of redemption transactions; the amount, or the number of units to be refunded; the way the amounts refunded are to be credited.

Fund rules must also specify cases of an exceptional nature, in which the redemption or issue of units may be suspended in the interest of the participants. In the case of redemptions, these events are generally related to situations where requests for reimbursement, because of their size and the existing market situation, would require disposals such as to potentially cause harm to the interests of the participants.

On the redemption of units of an umbrella fund, the investor is entitled to simultaneously subscribe units from other subfunds managed by the same management company, thereby operating a switch.[19] This switch between sub-funds is performed as follows:

– The redemption value of the sub-fund of origin is determined on the day the management company receives the switch request;
– The day of subscription of the sub-fund of destination which the participant has chosen coincides with the payment date of the redemption;

[18] The participant must be given the opportunity to: submit the redemption request directly to the management company, without going through distributors; disclose either the units or the amount to be repaid as the subject of divestment; request a partial refund; choose a method of payment among those indicated in fund rules.

[19] When the investor exchanges units held from one class in a sub-fund for units of another class in the same sub-fund, the operation is termed "conversion". On the other hand, when the investor exchanges units held from one class in a sub-fund for units in another sub-fund, the operation is termed "switch". As mentioned before, the switch operation has gradually lost many of the benefits in terms of regulations, taxes and fees which it once enjoyed, since it is now treated as a redemption and a purchase.

– The number of units to be issued depends on the number of units of the original sub-fund to be switched, their redemption value and the subscription value of the new sub-fund.[20]

The unit value of an investment fund—usually called the fund's net asset value (NAV)—is derived from the sum of the current value of all assets in the portfolio (including cash), net of liabilities, divided by the total number of units of the fund. For example, a fund that, on a given day, has 50,000,000 units, owns 970 million euros in securities, 50 million euros in cash and debt for 20 million euros, has a unit value of 20 euros.

The calculation of the NAV per unit requires:

– The valuation of all investments and assets in the portfolio on the basis of the market price;
– The calculation of the cash belonging to the fund;
– The sum of these two components, which is the gross asset value of the fund;
– The calculation of the accrued expenses for management fees, performance fees, fees to the depositary institution and other expenses borne directly by the fund;
– The identification of any additional outstanding liability.

The difference between the total value of assets, on the one hand, and the debts, on the other, produces the overall net asset value, or NAV, which, divided by the number of units outstanding on that given day, gives us the NAV of the single unit, at which new subscriptions and redemptions received by the management company on that specific day are to be settled. A feature of investment funds is that, unlike what happens with the great majority of financial instruments traded continuously, for each valuation date of the unit, there is a single NAV which coincides with the price of all subscriptions and all redemptions regulated on the same day, without a bid-ask spread between buying and selling prices.[21]

Depending on the investment policy and the subsequent adoption of a given benchmark index, it is possible to divide open-end investment funds into two categories:[22]

– Market funds, and
– "Alternative" funds.

[20] If the new sub-fund is denominated in a different currency from the original sub-fund, a conversion factor must be considered that depends on the exchange rate of the base currencies of the two different sub-funds.

[21] An exception in this regard is represented by the unit trust—a collective investment scheme used in the UK and in other countries with common law systems other than the USA—where the trading can take place on the basis of a bid price and an ask price.

[22] CESR (2010a). The term "alternative funds" used here refers to strategy funds and to structured funds that adopt innovative investment strategies made possible by the new European Union rules but which are still, at least potentially, harmonised funds—in the sense of compliance with UCITS directives—and are not to be confused with hedge funds and other non-harmonised funds, despite sharing some of the objectives and strategies of these. On this point, see Chap. 10.

Depending on the investment strategy, market funds are designed to track or exceed a given benchmark index, representative of a segment of the financial market. In fact, such funds can be managed with an active management strategy or an indexed one. In the first case, in its role as active manager, the management company aims to beat the benchmark used as a reference. In the second case, the management company aims to be more faithful to the benchmark: an extreme example of indexed investment fund are exchange traded funds (ETFs), passive funds traded continuously on one or more regulated markets, the characteristics of which are described in Table 2.3.

The second category includes various types of funds with investment policies and consequent risk-return combinations not summarised by a benchmark index.

These funds belong to one of these sub-categories:

– Absolute return funds,
– Total return funds,
– Life-cycle funds, and
– Structured funds.

These new categories of funds are largely the result of new investment limits and additional European rules introduced by the European Union directive UCITS III, which has made it possible for traditional investment funds to adopt investment strategies previously reserved to hedge funds, qualifying investor funds and other non-harmonised investment funds.[23]

Absolute return funds are managed according to investment policies or strategies which envisage a variable allocation of the portfolio of the fund across asset classes, under the constraint of a predetermined risk limit.[24]

Total return funds are engaged in investment strategies that pursue specified reward objectives by using flexible investments to participate in different financial asset classes (e.g. in both equity and fixed-income markets). Unlike absolute return funds, in which a target is set in terms of risk, in total return funds the target is set in terms of return.

Life-cycle funds are managed using strategies that entail a shifting of their portfolio allocation over time by reducing the market risk as the target maturity date approaches, in accordance with some predetermined rules.

Structured funds provide investors with algorithm-based payoffs at certain pre-determined dates which are linked to price movements of financial instruments or indices. The final performance of the structured funds is then determined using established, objective and unchangeable criteria, indicated in the predetermined algorithm.

Another classification system of investment fund investment policies in use in Europe has been developed by the European Fund and Asset Management Association (EFAMA) with the purpose of defining the parameters for a pan-European classification system.[25] The aim of classification is to clarify the main features of the investment

[23] For this very reason, these funds are often called NEWCITS, as if they were a new category of UCITS. Stefanini et al. (2010).

[24] CESR (2010a).

[25] EFAMA (2008) and EFAMA (2012).

Table 2.3 Characteristics of exchange-traded funds

Exchange-traded funds (ETFs) belong to the family of passively managed investment funds, whose objective is to replicate the risk-return combination of a given benchmark index. The characteristic feature of ETFs compared to traditional index funds is the continuous marketability of the units (or shares, if the legal form is that of the investment company) on a regulated market at a price which is known in real time, unlike what happens for traditional investment funds, characterised by a lag time between the purchase or redemption of units and the availability of the price at which the transaction is regulated.

Each ETF is linked to a particular market index and closely follows the trend of this index, being made up of a well-known portfolio of financial instruments which—physically or synthetically—replicates the performance of the underlying benchmark. Buying an ETF is therefore equivalent to investing in its benchmark index, despite imperfections in the replication due to periodic cash flows which are distributed or reinvested using different assumptions from those adopted by the index providers, as well as costs and charges that are levied on the assets of the ETF and do not exist on the benchmark.

ETFs are open-end funds, which are no-load funds (no entry or exit charges) with no performance fees, characterised by extremely low management fees.

At the purchase and sale of ETF units (or shares), however, investors pay the costs of intermediation and bear the cost of the bid-ask spread related to the negotiation on the regulated market characterised by the presence of market makers.

The minimum investment is equal to one unit (or one share): the investor therefore has an opportunity to enter the market with a very diversified portfolio with small amounts.

To sum up, the advantages of ETFs are:

- Broad diversification with reduced capital;
- Very low management fees;
- Liquidity;
- Transparency;
- Buying and selling prices known in real-time;
- (Almost) perfect replication of the benchmark;
- Ability to be fully invested.

The disadvantages of ETFs are:

- Transaction costs of buying and selling;
- Bid-ask spread on the secondary market trading.

The creation of an ETF requires the existence of two main markets: a primary wholesale market, which involves only a few authorised participants, and a secondary market accessible to all investors.

The object of trades carried out on the primary market is represented only by wholesale creation units, which form a block trading of i.e. 50,000 units. This market can only be accessed by authorised participants, who are the only ones who can apply for the issue of new units. The peculiarity is that the subscription of the units that make up the creation unit can be made "in kind", delivering the same financial instruments included in the benchmark index that is replicated by the ETF and any portion of liquidity, in order to make up the so-called "creation basket". Similarly, unit redemption on the primary market can be obtained only by authorised participants, which may also request redemption of units "in kind".

The division of the creation unit into individual units and their simultaneous distribution to investors is done by the same authorised participant through negotiation on the secondary market.

Investors can then buy and sell ETF units on the secondary market, where the ETF is also traded through the intervention of one or more market-makers who support the liquidity of the ETF trading book.

Specific rules on the wholesale primary market and its implications are the element that most distinguishes an ETF from a traditional open-end fund. The purchase or sale of ETF units by investors in the secondary market do not in fact generate the change in the number of outstanding units of the ETF but merely provides for the replacement of the previous investors (sellers) with new investors (buyers), thereby creating a scheme closer to that of closed-end funds. Unlike the latter, however, in the case of ETFs, the net asset value can be determined objectively and if a misalignment might arise between the theoretical NAV, based on the market prices of the basket of financial instruments, and the trading price on the secondary market, one or more authorised participants intervene immediately with an arbitrage transaction to restore parity between the theoretical NAV and the price on the secondary market. In the presence of a sufficiently liquid market, the option given to authorised participants to subscribe and redeem units (or shares) on the primary market through a mechanism of creation-redemption in kind makes sure that the trading price on the secondary market will converge with the ETF's theoretical NAV.

Like CIVs, ETFs are not affected by the management company's credit risk. However, they are not immune from counterparty risk if synthetic replication of the benchmark takes place, through swap contracts with no central counterparty, instead of through physical replication.

In recent times, increasingly complex ETFs have appeared on the market, such as ETFs based on new types of underlying indices (including real estate, private equity and hedge fund indices, volatility indices and indices that measure credit quality), structured ETFs (which allow the investor to take a prearranged investment strategy on a given index, based, for instance, on leverage) and actively managed ETFs (whose goal is not to replicate a benchmark, but to expose themselves to an "active" strategy developed and updated by the management company).

Sources: Gastineau (2010) and Abner (2010) fund and the main factors that can impact on its risk profile, thereby making possible a lucid perception of the risk-return combination of each classified fund.

This classification of funds is divided primarily into six macro-categories:

– Equity funds,
– Bond funds,
– Multi-asset funds,
– Money market funds,
– Absolute return innovative strategies funds, and
– Other funds.

Each macro-category is characterised by minimum and maximum investment limits in the different categories of financial instruments, which provides the parameters for that fund's asset allocation, and is then divided into different categories defined on the basis of the risk factors that characterise each one (Table 2.4):

– Equity funds have an exposure to equity amounting to at least 85 % of their assets and can be distinguished on the basis of geographical exposure, sector and market capitalisation.

Table 2.4 EFAMA classification of investment funds

Macrocategories	Characteristics	Classification criteria
1. Equity funds	Funds with more than 85 % exposure to equity.	Geographical exposure, sector exposure, market capitalisation, structural characteristics.[a]
2. Bond funds	Funds with at least 80 % of their assets allocated to fixed income securities. Investment in cash should not exceed 20 %. Investment in other assets should not exceed 10 %.	Geographical exposure, currency exposure, credit quality, interest rate exposure, emerging market exposure, structural characteristics.
3. Multi-asset funds	Funds that invest assets under management in both equity and fixed income securities.	Geographical exposure, currency exposure, asset allocation, structural characteristics.
4. Money market funds	Funds that invest their asset in money market instruments of high quality or deposits with credit institutions.	Currency exposure, credit quality, interest rate exposure, structural characteristics.
5. Absolute return innovative strategies funds	Funds managed with the objective of generating a positive return over a cash benchmark, irrespective of market movements.	Directional, long/short, relative value, event driven, multistrategy, index trackers, funds of funds.
6. Other funds	Funds falling outside the five broad categories stated above.	Guaranteed, capital protected, asset backed securities, convertibles, life cycle/target maturity, infrastructures, commodities, open-end real estate, closed-end real estate, REIT.

[a]Structural characteristics refer to features characterising funds, such as socially responsible investment funds, ETF, fund of funds, etc.
Sources: EFAMA (2008) and EFAMA (2012)

- Bond funds have at least 80 % of their assets invested in fixed income securities. Investment in cash should not exceed 20 %, including investment in other assets which should not exceed 10 %. This category can be sub-divided according to credit quality, interest rate exposure and currency exposure.
- Multi-asset funds are balanced funds that invest their assets under management both in equity and in fixed income securities. They can be differentiated according to geographical exposure, asset allocation and currency exposure.
- Money market funds can be classified, according to ESMA distinction,[26] in short-term money market funds and standard money market funds. Further sub-divisions of this category are based on currency exposure and, in the case of short-term funds, on the fund's valuation method.[27]

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[26] CESR/ESMA guidelines on a common definition of European money market funds provide the following requirements for a fund in the European Union to be defined as a money market fund:

- The primary investment objective is to maintain the principal and provide a return in line with money market rates;
- The object of the investment policy is represented by high quality securities. A money market instrument is not considered to be high quality unless it has been awarded one of the two highest available short-term credit ratings by each recognised credit rating agency that has rated the instrument or, if unrated, it is of an equivalent quality as determined by the management company;
- Subscription, redemption and NAV calculation are provided daily;
- Direct or indirect exposure to equity or commodities, including via derivatives, is not admitted;
- Investments must be limited to securities with a residual time to maturity of less than or equal to 2 years, provided that the time remaining until the next interest rate reset date is less than or equal to 397 days;
- Weighted average maturity (WAM) of the portfolio must be no more than 6 months;
- Weighted average life (WAL) of the portfolio must be no more than 12 months.

In the case of short-term money market funds, the last three requirements are replaced with the following:

- Investments must be limited to securities with a residual time to maturity of less than or equal to 397 days;
- Weighted average maturity (WAM) of the portfolio must be no more than 60 days;
- Weighted average life (WAL) of the portfolio must be no more than 120 days.

WAM is a measure of the average of the time to maturity of all of the securities in the fund, weighted to reflect the relative holdings in each instrument, assuming that the maturity of a floating rate instrument is the time remaining until the next interest rate reset to the money market rate, rather than the time remaining before the principal value of the security must be repaid.

WAL is the weighted average of the time to maturity of each security held in a fund, meaning the time until the principal is repaid in full. Unlike what happens in the calculation of the WAM, the calculation of the WAL for floating rate securities and structured financial instruments does not allow the use of interest-rate reset dates and uses instead only a security's stated final maturity.

[27] Short-term money market funds can have a constant net asset value or a variable net asset value, whereas money market funds, like any other kind of funds, must have a variable net asset value. A constant or stable NAV short-term money market fund seeks to maintain an unchanging face value NAV (for example \$1 or €1 per unit or share). Income in the fund is accrued daily and can either be paid out to the investor or used to purchase more units in the fund. Assets are generally valued on

– Absolute return innovative strategies funds are managed with the aim of generating a positive return irrespective of market movements. Whilst equity, bond, multi-asset and money market funds are long-only funds that typically aim to achieve a higher return than a benchmark index, innovative strategies funds make extensive use of derivatives to short/long the securities or the market as a whole.[28]
– "Other funds" is a residual category including different kinds of funds falling outside the five broad categories stated above. Examples of these are: asset-backed securities funds, guaranteed funds, capital-protected funds, commodity funds, infrastructure funds, and real estate funds.

2.3.3 The Benchmark and Investment Strategies

The benchmark is an objective reference parameter of common use, constructed by using financial indicators developed by third parties. The benchmark must be consistent with the risks of the CIV and is used to compare the performance of the fund with that of the benchmark itself.[29]

The benchmark is an *ex ante* tool able to signal risk characteristics of the fund and to permit a more informed investment choice on the part of the subscriber. *Ex post*, the benchmark allows the results of the fund to be assessed, by comparing both the return, and the absolute and relative risk of the fund in relation to those of the benchmark, over a given period.

It should be noted that, in general terms, the benchmark only reflects the risk-return profile of the fund. It is instead the kind of strategy adopted—active or indexed—which outlines the extent of the risk profile of the portfolio under management as compared to the market risk of the benchmark portfolio, considered "neutral". In the case of an active investment strategy, the benchmark does not have

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an amortised cost basis which takes the acquisition cost of the security and adjusts this value for amortisation of premiums (or discounts) until maturity. According to CESR guidelines, the fund must ensure that such a method will not result in a material discrepancy between the market value of the instruments held by the fund and the value calculated according to the amortisation method, whether at the individual instrument level or at the fund level. The fund must periodically calculate both the market value of its portfolio and the amortised cost valuation and take action if any discrepancy should becomes apparent. The constant NAV is not guaranteed, and whenever a discrepancy materialises between the market value and the amortised cost value of the portfolio, the short-term money market fund can no longer issue and redeem units at the stable NAV: this situation is often known as "breaking the buck". This may occur, for example, when there is a default by the issuer of an instrument in the portfolio. CESR (2010b).

[28] The EFAMA definition of "absolute return innovative strategies funds" does not correspond with the ESMA definition presented above, reflecting the existence of many different definitions of "absolute return" funds (as well as for "total return" funds) across the fund industry, which are not always similar in nature or easy to understand.

[29] Schoenfeld (2004), Gastineau et al. (2007) and Christopherson et al. (2009).

a compelling effect on the operations of the management company. In fact, active management increases the management company's room for maneouevre and therefore adds an additional market risk, which can be positive, in case of an over-performance in relation to the benchmark, or negative, in case of an under-performance. Conversely, in the case of indexed investment strategy, the management company only replicates the composition of the benchmark, which therefore defines itself briefly the level of risk and return of the fund.[30]

Even in the case of indexed investment strategies, the replication of the index and of its risk-return combination is not so obvious. In theory, the replication of a benchmark is elementary: it amounts to buying the same securities included in the benchmark in the same weights they have in the index. In practice, this replication is hindered by several factors, the most important of which are:[31]

– The need to recompose the portfolio periodically during each ordinary and extraordinary revision of the benchmark index which is being replicated;
– The presence, in some segments of the securities market, of minimum trading lots, which prevent perfect replication of the benchmark index;
– The existence of management fees and other expenses directly incurred by the fund, which affect the managed portfolio, but not the benchmark;
– The presence of transaction costs which affect the portfolio, but not the benchmark (trading charges and bid-ask spread);
– The occurrence of any tax burden on the performance of the managed portfolio and not on that of the benchmark;
– The impossibility for managed portfolios of open-end vehicles which face redemption requests to be fully invested, as a portion of assets must always be kept as cash so as to respond promptly to requests for reimbursement;

[30] Financial theory is the foundation of the development of indexed investments and this is a fairly isolated case in the history of the financial markets where, as a rule, product innovation has always preceded the formulation of the theories underlying it. The conceptual assumptions of the use of passive investment techniques, aimed at the replication of market indices, can be traced in the studies of Cowles (1933) regarding the limited predictive power of financial analysts in the USA from 1920 to 1940. These first empirical analyses were followed by the theoretical formalisation of the Capital Asset Pricing Model and, in particular, the introduction of the market portfolio and have come to fruition with the theory of efficient markets. After this theoretical evolution, Malkiel felt it was time to make an open appeal to the community of asset managers to provide "a new investment instrument: a no-load, minimum management-fee mutual fund that simply buys the hundreds of stocks making up the market averages and does no trading" (Malkiel 1973, p. 226). From this proposal emerged the first indexed investment fund targeted at retail investors: the Vanguard 500 Index Fund, established in the USA in 1976, which still exists today. Since this milestone, decades have passed and investments for replication of market indices have grown considerably and diversified by asset class and by different technical solutions. Meanwhile, the scientific literature has continued its studies along two main lines: an empirical line aimed at investigating the ability of actively managed portfolios to achieve a higher-than-average performance compared to indexed portfolios; and a theoretical line, aimed at highlighting which are the methodologies best suited to assessing the efficiency of a stock index.

[31] Grinold and Kahn (2000), Siegel (2003) and IOSCO (2004).

– The existence of regulatory constraints that prevent excessive concentration of the managed portfolio in a single financial instrument, in all those cases in which the replicated benchmark is composed of relatively few securities and one or more of these securities have an excessive weight compared to the concentration limits established for the fund;
– The presence of dividend and other income distributed by the securities included in the indexed portfolio but not incorporated into a price index;
– The reinvestment of all interest and other income earned on the managed portfolio on the basis of choices other than those assumed by the index provider that calculates the benchmark.

The choice between active management and indexed management is essentially linked to two factors:

– Costs, and
– Market efficiency.

In relation to the first aspect, other conditions being equal, the cost of active management is certainly higher than that of an indexed portfolio, because of the differing role of activities of research and analysis and the increased portfolio turnover. Starting from this assumption, the theorem of active management developed by Sharpe showed that:[32]

– Ignoring management costs, the average gross return of actively managed portfolios must be equal to the average gross return of indexed portfolios;
– Including management costs, the average net return of actively managed portfolios is necessarily lower than the average net return of indexed portfolios.

Contrary to what is often said, this does not mean, as shown in Table 2.5, that, net of management costs, the average net return of actively managed investment funds must necessarily be lower than the average net return of indexed investment funds, because for "active manager" Sharpe meant not only active funds but any investor on a given market with a portfolio that does not exactly match the representative benchmark of the market itself.

The theme of the ability of active management to produce a greater return compared to indexed management has been the subject of debate in the scientific literature for decades, with mixed results.[33] If, on the one hand, the ability of the indexed manager to beat the reference benchmark is essentially non-existent, on the other, active managers, faced with higher management costs, have at least the potential ability to achieve outperformance compared to the market, though there may also be the risk of generating an underperformance. In fact, active managers add to the risk of the benchmark an additional market risk, the presence of which may be positive or negative: that is, so-called "active risk".

[32] Sharpe (1991) and Sharpe (2002).

[33] Elton et al. (1993), Goetzmann and Ibbotson (1994), Malkiel (1995), Gruber (1996) and Haslem (2010).

Table 2.5 The theorem of active management

In a famous paper of 1991, then partially revised in 2002, William Sharpe developed the so-called "law of active management", based on two different postulates:

1. Before management costs, the return on actively managed portfolios matches, on average, the return of passively managed portfolios;
2. Net of management costs, active portfolios as a whole must necessarily provide, on average, a lower return than indexed portfolios.

According to Sharpe, the two postulates are true on any time horizon and are demonstrable, under certain assumptions, making use of only the four elementary operations.

The starting point for the proof of the theorem is the following. A passive manager will include in his portfolio the same securities included in the benchmark, respecting their proportions. An active manager, on the other hand, will implement active choices that lead him to exclude, to underweight or to overweight some securities and include others.

If, in a given period, the market generates a return of +10 %, for example, the passive managers will earn, by definition, a return which, before management costs, is identical with respect to that of the market. But it follows that active managers, too, will earn an average return, before management costs, of +10 %. This is because in a market where there are only passive and active managers, if the average performance of the market is +10 %, the gross return of indexed managers is certainly of 10 %, but the logical consequence is that the average return of active managers before costs must necessarily be equal to 10 %. Practically:

$$R_m = R_{pm} \cdot x_{pm} + R_{am} \cdot x_{am}$$

where:

R_m = market return, as measured by a capitalisation-weighted benchmark index;

R_{pm} = average return before costs of indexed management strategy with a full replication of the benchmark index that measures changes in the market;

x_{pm} = weight of indexed portfolios in the market;

R_{am} = average return before costs of active managers investing in the benchmark index that measures changes in the market;

x_{am} = weight of active managers in the market.

It is evident that the reasoning is based on the assumption that the sum of the percentage weights of the assets managed by active managers and those held by indexed managers is equal to 100 %. In other words, the term "active manager" is used by Sharpe to identify not only active asset managers but also any holder of financial instruments who has a discrepancy in his financial portfolio with respect to the composition of the benchmark used to measure market return. The figure of the "active manager" described by Sharpe therefore includes individual investors, institutional investors and any other investor who holds instruments in his portfolio listed on the reference market in proportions different to those in the specified benchmark used to calculate the market return.

Having clarified the meaning of "active manager", it is undeniable that the return before costs of indexed portfolios has to coincide with the average return before costs of actively managed portfolios.

Once the first proposition has been proven, it is even easier to prove the second. The cost of active management is obviously higher than that of passive management, because of the higher costs of analysis, stock selection and trading. By way of example, if the average cost of active management in a given market is 1.5 % per year, and that of the passive management 0.5 % per year, this proves the second part of the thesis. The average return of an actively managed portfolio, net of costs, must necessarily be lower than that of an indexed portfolio. While both start at gross returns of 10 %, after management costs are deducted, it is easy to understand what Sharpe was saying, provided that this does not mean—as is often pointed out—that, on average, the net return of actively managed investment funds is by definition lower than the net return of passively managed investment funds.

At this point, the second key variable comes into play: the degree of market efficiency. The fund manager may choose to follow an active strategy, since he is convinced that he possesses the specific skills to beat the benchmark, given the limited market efficiency. On the other hand, the fund manager may decide to follow an indexed investment strategy so as to replicate a predefined benchmark, because he believes that the market is so efficient as to make it impossible to obtain outperformances continuously and systematically, or because he believes the market to be so efficient that even if systematically positive excess returns were obtainable, these would be too low to justify the higher costs of analysis, research, and transaction involved in implementing an active investment strategy.

It is therefore left to the investor and, in a nutshell, to his capacity of evaluation and appetite for risk to decide whether to rely on an active manager or a passive manager, taking into account the difference in costs and evaluating the ability of the asset manager to beat the market return, especially as a function of the level of efficiency of the same market.

2.3.4 Restrictions on the Investment Policy

Investments in the fund are determined by the management company in compliance with the provisions of applicable laws, regulations and fund rules.

In the European Union, specific restrictions on investment fund management policy have been adopted to create a single market for collective management schemes within the Union. When a fund matches the requirements established by European Union regulations, it has a European-wide passport, which allows asset managers, once authorised, to trade and run funds throughout the Union regardless of their country of domiciliation, without the need for additional authorisation.

This paragraph presents the restrictions to investment policy on UCITS funds. The rules for alternative investment fund managers will be analysed in Chap. 10, with a focus on single categories of alternative funds (hedge funds, real estate funds, commodities funds) in the following chapters.

In the case of UCITS funds, there are specific limits for risk spreading and diversification of investments, the most important of which are:

– Constraints on the overall composition of the portfolio;
– General prohibitions;
– Limits on risk concentration;
– Limits on investments in other open-end funds;
– Limits on derivatives;
– Limits on borrowing;
– Limits to the holding of voting rights.

With regard to restrictions on the overall composition of the portfolio, a UCITS fund invests the capital raised in assets that are consistent with its investment policy, sufficiently liquid so as to ensure the ability to redeem units, where the risks are adequately controlled through internal risk management and with a maximum potential loss limited to the amount paid, or, in the case of derivatives, with an exposure not exceeding the fund's net asset value.

In terms of general prohibitions, UCITS funds may not:

– Grant loans in forms other than those provided in respect of forward transactions in financial instruments;
– Carry out uncovered sales;
– Buy precious metals or certificates representing them.

The limits to the concentration of the risks of a harmonised fund configure a set of rules to be observed with continuity, the most important of which are the following.

– Limits on investments in securities of the same issuer which, in the case of transferable securities (shares, bonds and similar securities) and money market instruments, are fixed at 5 % of the total assets of the fund.[34] Member states of the European Union may raise the 5 % limit to a maximum of 10 %. If they do so, however, the total value of the fund's investments of more than 5 % with a single issuer may not exceed more than 40 % of the whole portfolio. This limit is known in the jargon as the "10/40 rule".[35]
– Limits for investments in deposits pursuant to which a UCITS fund cannot allocate more than 20 % of total assets in deposits with a single bank, a limit reduced to 10 % in the case of deposits with its own depositary institution.
– Limits on over-the-counter derivatives transaction, which provide a cap to the risk exposure of a harmonised fund based on 10 % of total assets, if the counterparty is a credit institution, and on a 5 % of total assets in all other cases.

The limits to investments in other open-end funds mean that a harmonised fund cannot invest more than 10 % of its total assets in another UCITS fund or open-end CIV, a limit that can be raised by individual member countries to 20 %.[36] It is prohibited to invest in investment funds that invest in another CIV more than 10 % of their assets.

In the case of derivatives, these can be used by UCITS funds not only for hedging purposes but also for more efficient portfolio management, aiming to

[34] This limit is raised to 35 % when securities are issued or guaranteed by a European Union country, by its local authorities, by OECD countries or by supranational organisations which participate in at least one European Union country. The limit is set to 5 % for instruments other than transferable securities or money market instruments. In the case of index funds aimed at replicating the composition of a given financial index, the concentration limit in any single issuer is raised to 20 % of the fund's total assets.

[35] There are also indices in the version 10/40 in order to let the asset manager to replicate the index or, in the case of active management, to make a meaningful benchmark available to the manager for returns comparison.

[36] Investments made in CIVs other than UCITS shall not exceed, in aggregate, 30 % of the assets of the UCITS. Investments in closed-end CIVs are not allowed.

benefit from cost savings or increased liquidity, and also for investment purposes. The total exposure in derivatives may not exceed the total net value of the fund. This implies a maximum leverage potentially equal to 2.[37] The fund also has the option to use derivatives for taking net short positions.[38]

As regards investment management activity, it is up to each member country of the European Union to authorise a harmonised fund to borrow money aimed at facing temporary mismatches in treasury management for a period not exceeding 6 months, within the limit of 10 % of the total net assets of the fund. In relation to voting rights on securities representing investments in equity capital, a management company may not hold, for all the funds and sub-funds managed, the voting rights in the same company for an amount such as to exert a dominant influence on the same.[39]

As we said before, UCITS regulation is now regarded internationally as an efficient regulation scheme, able to ensure adequate protection to investors. As a result, the UCITS status is recognised beyond the European Union and UCITS products are accepted for sale in many countries outside the European Union.

2.3.5 Mandatory Public Documents

According to the regulations, investment funds are characterised in each country by extensive documentation which accompanies their institution and distribution. Within the European Union, there have been a number of innovations in recent decades regarding the required documentation and its contents, subsequent to the appearance of the EU directives on UCITS and the inherent possibility of free movement in the various member countries.

The main documents required are:

- The prospectus,
- Fund rules,
- Key investor information document, and
- Periodical reports.

The prospectus contains a clear and easily understandable explanation of the fund's risk profile, by presenting to investors all the information necessary to make an informed judgement of the investment proposed to them, and, in particular, of the related risks.

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[37] In the fund's prospectus, the management company must state the purposes of the use of derivatives and the maximum level of leverage to be adopted in implementing the investment policy.

[38] This implies that the financial leverage of a harmonised fund could potentially range from −2 to +2.

[39] Discretion is left to each member state to define the thresholds of the voting rights acquired by a management or investment company.

The fund rules govern the relationship of participation in the investment fund, defining the characteristics of the fund, regulating the operations, presenting the fund's essential features and providing subscribers with the principal information about the fund, its management company, and the depositary institution. Fund rules also detail the specific elements of the fund with particular regard to investment policy, the procedures for participation, the terms and procedures for the issue and redemption of units, the subjects responsible for investment choices, the type of financial instruments and other assets in which the capital of the fund may be invested, the criteria for determination of income, the expenses borne by the fund and those borne by the management company, the criteria for determining the commissions due to the management company, and the costs charged to investors.

Fund rules can be an integral part of the prospectus and, in this case, are attached to it. If not contained in the prospectus, the fund rules can be sent to investors, upon request, or retrieved from the place indicated in the statement itself. A company that manages a number of funds of the same type may establish single fund rules, which shall contain the same provisions only once for all funds and specific parts dedicated to the unique features of each fund.

In the case of UCITS, European Union directives require that each investment fund should prepare a short document containing the most important information for investors, known in the language of the European directives as the "key investor information document" (KIID). This document contains all the most important information investors need to understand the nature and risks of the fund.

The KIID must contain details regarding the following elements about the UCITS concerned:

- The identification of the UCITS and of the competent supervisory authority;
- Short description of its investment objectives and investment policy;
- Past-performance presentation or, where relevant, performance scenarios;
- Costs and associated charges;
- Risk/reward profile of the investment, including appropriate guidance and warnings in relation to the risks associated.

The updated KIID is delivered free of charge to the investor prior to subscription of the fund and its information must be consistent with the relevant parts of the prospectus and fund rules.[40]

Within a maximum of 4 months from the end of each financial year, or within the shortest period in which the fund proceeds to distribute income, the management company must prepare the annual report for each fund managed, as well as, within a maximum period of 2 months from the end of the semester, preparing an interim

[40] The KIID was introduced by European legislation UCITS IV and replaced the simplified prospectus. It consists of two pages and, in addition to the data of the management company and the fund, it contains five standardised sections: objectives and investment policy; risk and reward profile; charges; past performance; practical information.

report (the semi-annual report) in which it illustrates the fund's mid-year financial position.

The investment fund's annual report includes:

- The statement of net assets as of end of the present financial year, illustrating the composition of the fund's portfolio in terms of total assets, total liabilities and net asset value;
- The number of units in circulation and the consequent net asset value per unit, with a comparative table covering the last three financial years, showing total net asset value and net asset value per unit at the end of each financial year;
- The statement of operations and changes in net assets, which explain the factors that have led to an increase or decrease of net asset value per unit in the course of the financial year;
- The portfolio of investments as of the end of the last financial year, which indicates the composition of the asset portfolio and analyses it in accordance with the most appropriate criteria in the light of the investment policy of the UCITS (e.g. in accordance with economic, geographical or currency criteria);
- A summary of significant accounting policies and other explanatory notes;
- An audit report by an independent auditor.

It is also accompanied by the directors' report, which aims to provide information on both the investment policy undertaken and the prospects for market growth in the fund's areas of interest. The semi-annual report only presents the assets and liabilities resulting on the last day of the semester, represented by the same criteria used for the preparation of the annual report, subject to the right of the management company to broaden its information content.

2.3.6 Investment Fund Charges

The costs affecting the service of collective portfolio management fall into two categories:

- Costs borne directly by investors, and
- Costs charged directly to the assets of the fund and, therefore, borne indirectly by investors.

Costs incurred directly by investors include the entry charge, the switch charge, the exit charge and fixed fees. These burdens are aimed mostly at rewarding the activities of those who distribute such products, in the sense that these fees are usually paid entirely to the distributor. More specifically, the fees incurred directly by the investor can be broken down as follows:[41]

[41] In the US funds market, the terminology used to describe fees is slightly different, and terms which are synonymous here have a different meaning.

- The entry charge (or subscription fee) is paid at the time of purchase of fund units and therefore reduces the capital actually invested. It can be of a fixed amount for each subscription or, more frequently, it may vary. In the latter case, it is indicated as a percentage and its amount can vary according to a mechanism normally given in brackets according to which its incidence decreases as the amount invested increases. The entry charge varies depending on the type of fund and is higher for products with a higher risk or a greater specialisation.
- The switch charge is payable in the event of switching between sub-funds of the same umbrella fund, managed by the same company. It can be of a fixed amount or, more frequently, may be indicated as a percentage. It is generally configured so as to avoid arbitrage opportunities for investors and to provide for the recovery of any entry charge established in the sub-fund of destination not paid in the sub-fund of origin.
- The exit charge (or redemption fee) is paid by the investor when he requests the redemption of units and therefore involves the reduction of the capital actually repaid. The redemption fee, also known as a deferred sales charge, may be incurred as an alternative to the subscription fee. Sometimes it only applies if the investors ask for redemption before a certain period, within which the commission usually decreases as the number of years spent in the fund passes. Some funds allow investors to choose between either an entry charge or an exit charge.
- The fixed fees are paid as the management company directly withdraws a fixed amount for each transaction performed. Additional sums are deducted by the management company to cover expenses if the subscriber requests, when possible, the delivery of physical certificates representing the units.[42]

The charges described above can exist, but there are investment funds—called no-load funds—totally free of charges directly borne by the investor, for which fees are charged solely to the fund's assets. Indeed, a fund characterised by charges borne directly by the investor can virtually turn into a no-load fund, due to possible concessions. It is common knowledge that certain categories of subscribers are recognised benefits in the form of reduced fees for entry, switch or exit. In other cases, it is the distributors who enjoy a certain margin of discretion in granting these concessions, even to investors not covered by any particular category. This allows for more flexibility in negotiations and enables investors to obtain more favorable treatment than would normally be the case. Such benefits can even result in the complete elimination of entry, switch or exit charges.

Costs charged directly on the funds and supported indirectly by the subscribers are taken from the fund's assets. This category includes: management fees, performance fees (or incentive fees), brokerage fees and other costs incurred by the fund. As we shall see, these charges are not always connected only to the remuneration of

[42] Some interesting facts and statistics regarding the costs of investment funds are provided by the European Fund and Asset Management Association (EFAMA) in Europe, by the Investment Company Institute (ICI) in the United States, as well as by the various analyses of specialised companies.

the management service but can also be paid in part to the distributors. In detail, the costs borne by an investment fund may consist of the following:

– The management fee has the aim of remunerating the management company for the service of collective portfolio management. It is expressed as a percentage and is calculated and charged daily (or at least with the same frequency of calculation of the NAV) on net asset value of the fund by the imputation of accrued expenses, although the actual drawing takes place periodically.[43] Despite being taken by the management company, it is also possible that the management fee is partly transferred to distributors. The management fee is generally higher as the level of risk or the specialisation of the fund increases.
– The performance fee (or incentive fee) is levied by the management company if and when the fund reaches, in a given period, a higher return than a predetermined parameter. Therefore, it allows the management company to increase its remuneration in the case of over-performance in relation to a preset parameter. Not every fund has a performance fee. If it has, in this case too, as for the management fee, the imputation is done daily (or with the same frequency of calculation of the NAV) on the net asset value of the fund by charging the accrued portion. For a detailed description of the method of calculation of performance fees, see Table 2.6.
– Portfolio-trade related costs include expenses that the fund sustains for the purchase and the sale of securities in which to invest assets under management and are therefore related to portfolio turnover.[44]
– The depositary institution fee is paid for the activity carried out by the custodian institution.
– Other costs are a residual category which includes the costs of publishing the net asset value of the units, the periodic statements and public documents, expenses for notices to investors required by the law, costs for audit accounting and reporting by an independent auditor, the supervisory contribution, and so on.

Distinct classes of fund units, characterised by different commissions, income allocation or participants, may be offered to investors. In some cases, this gives the investor the opportunity to choose the solution that best suits his preferences. For example, a single fund may provide two different unit classes: class A with an entry charge and class B with a redemption charge and/or a management fee higher than class A. In this way, the subscriber has the opportunity to choose when and how to pay the fees, whether at purchase or at redemption, or whether to bear higher management fees in exchange for the absence of subscription fees. In other cases,

[43] The fund's prospectus indicates the average size of the portion of the management fee that is paid to distributors, although in practice this percentage is differentiated according to the existing agreements with each distributor and is proportionate to the nature of all the pre and post-sale services that each distributor has undertaken to provide to investors.

[44] The portfolio turnover rate is the ratio between the total purchases and sales of securities that have occurred in a given period, net of subscriptions and redemptions, and the average net assets of the fund over the same period, although alternative methods may be used to calculate this indicator.

the classes with lower fees are reserved for institutional investors or investment with higher minimum subscription thresholds. Unit classes can be differentiated according to currency of denomination or, as an alternative, according to currency risk management. Moreover, unit class can be distinguished depending on the allocation of the income earned, creating a class that accumulates income and a class that distributes it periodically.

An overall assessment of the costs borne directly by the fund can be performed by calculating the total expense ratio (TER). The TER is a summary indicator of the effect of commissions on fund assets and is calculated as the ratio between the total fees charged directly to the fund and the average assets of the same fund. In order to calculate it, we need the management fee, the performance fee if stated, the brokerage fees and all other costs incurred in buying and selling securities in the portfolio (although, as we shall see, these are sometimes excluded), the fee paid to the depositary institution and the other costs charged directly to the fund's assets. Quantification of the costs does not take into account any additional cost directly borne by the investor at the time of subscription, switch or redemption, nor any tax charge on the fund. In some cases, the TER does not even consider trade-related costs for buying and selling securities in its portfolio: this is the version of TER adopted by the European Union since implementation of the UCITS III directive.[45]

With regard to UCITS funds, European Union regulations introduced in the UCITS IV directive made it obligatory in the mandatory information to replace the TER with the amount of current costs, officially named "ongoing charges", which differ from TER because they do not include any performance fee. Like the TER, ongoing charges do not include any additional cost directly borne by the investor, or any tax and transaction costs.

The prospectus and (for UCITS funds) the KIID too, pay special attention to costs. In fact, a section of the prospectus is devoted to "charges and expenses" and contains all relevant information regarding costs, detailing any charge borne by the subscriber as well as charges borne by the fund and the related concessions. This section details the method of calculation, as well as how the various fees and charges may be incurred. In the case of UCITS funds, the KIID reports separately:

- One-off charges taken before or after investment (entry and exit charges paid by the investor),
- Charges taken from the fund over each year (on-going charges), and
- Charges taken from the fund under certain conditions (performance fee, if it exists).

[45] The reason for this exclusion stems from the impossibility of making any meaningful comparison between funds due to the presence of both explicit trading costs (which have an independent highlighting and increase the TER), and implicit trading costs emerging from the bid-ask spread, which cannot be highlighted autonomously and therefore do not affect the TER. In order to improve comparability between funds, the TER of European Union funds, therefore, does not include transaction costs related to the portfolio turnover, as well as the costs directly borne by the subscriber and the payment of taxes directly borne by the fund. CESR (2005).

Table 2.6 Performance fees on investment funds

Performance fees have two functions: to link the asset manager's remuneration to the return achieved by the investor, and to share the result of the delegated management between the asset manager and the investor. The payment of performance fees is subject to the achievement of a threshold of performance identified in accordance with predefined criteria. For this reason, incentive fees make the total remuneration amount due to the management company uncertain by participating in the outcome of the collective management. The key elements relating to incentive fees are: – The index for assessing the extra return; – A symmetrical or asymmetrical structure; – The time horizon for evaluating the excess return; – The basis for calculation. The benchmark index against which we compare the return obtained by the investor should be consistent with the objectives pursued through the introduction of an incentive fee: to reward the company's ability to manage the investment portfolio and to align the interests of asset managers and investors. Ideally, the benchmark against which to assess the relative performance should be an objective and sufficiently widespread market index which should be consistent with the investment policy of the fund. Only in the case of funds that do not adopt a benchmark, should it be possible to use any explicit target return indicated in the fund rules to calculate the incentive fee. In the European Union, common rules regarding this aspect have not yet been laid down. Incentive fees can have a symmetrical or asymmetrical structure. A symmetrical performance fee awards an additional fee to the management company in the event that the fund is able to beat the benchmark index, but leads to a reduction in the management fees in the event that the fund is beaten by the benchmark. An asymmetrical performance fee, on the other hand, rewards the management company in the event of a positive extra return, but at the same time protects the management fees from reduction if the fund is beaten by the benchmark. In the European Union, common rules on this subject have not yet been laid down and both structures of performance fee are allowed, unlike the United States, which introduced legislation in 1970 limiting incentive fees to the symmetrical type. It should be clear, therefore, that the most widespread structure in the European Union is the asymmetrical one. The time horizon considered for payment of performance fees should be broad enough to enable investors to make an accurate assessment of the management company's ability. The payment of performance fees over too short time horizons would expose investors to the risk of paying incentive fees on non-existent extra returns, compared to more appropriate measurements taking place over a sufficiently long period. One possible solution to this problem is to introduce the high-water mark mechanism, which ensures vertical equity between the management company and investors. In fact, the high-water mark means that the fund is exempted from new performance fees for as long as investors have not yet recovered any losses recorded earlier. In the medium to long term, this ensures that incentive fees are calculated on real performance, provided that investors do not redeem units until the fund has reached its maximum point (the high-water mark). Originally applied only to hedge funds, this mechanism basically makes the period over which performance fees are calculated (monthly, quarterly, annually) irrelevant: if the fund loses, it must reach a new maximum before new performance fees can be applied. As regards the basis for calculating the performance fee, this is represented by the net asset value of the fund on the calculation date, adjusted for any income distribution since the last performance fee has been paid, or as an alternative, if stated in the fund rules, the average net asset value of the fund during the evaluation period, adjusted for any income distribution in the period.

Sources: Elton et al. (2003) and Scherer and Lee (2012)

However, the KIID gives no indication of trading costs on purchase and sale transactions, information which is instead contained in the fund's financial reports and, in particular, in the annual report.

2.4 Unit Trust Schemes

Collective portfolio management can be done by using alternative legal structures. The structure most used in some European countries is the common fund set up in the form of a contract between the management company and the investors. In this case, the common fund is not a separate legal entity in its own right, but the legal entity is the management company setting up the fund. Another legal structure for organising a CIV is the trust form, in which the CIV is usually called "unit trust". The unit trust form of CIV is found in jurisdictions where the English common law system prevails, excluding the United States.[46]

A unit trust pools the money of many individual investors to create a portfolio of financial securities with a specific investment objective. The pool of investments is divided into equal portions called units. Like the common fund, the unit trust can also be organised as an umbrella unit trust scheme, comprising separate sub-funds with segregated assets and liabilities. The unit trust is a CIV structure constituted by a deed of trust between a trustee and a management company (manager). The deed of trust—which is the equivalent to the fund rules of common funds—is the primary legal document constituting the trust and setting out the various rights and obligations of the trustee, the management company and the unit-holders who are beneficiaries of the trust.[47] The unit trust, like the common fund, is not a separate legal entity and therefore the trustee acts as legal owner of the fund's assets on behalf of the investors.

There are three parties to a unit trust: the trustee, the manager and the unit-holders.

The trustee is usually a financial institution, which must be unconnected to the manager. The trustee is the legal owner of the trust property and its duties are:

– To protect the interest of unit-holders by ensuring that the fund is run in accordance with the law, regulations and the trust deed;
– To act as custodian for the trust's assets, or to delegate this function to a trusted third party. The trust's assets are registered in the name of the trustees, who also hold the trust income;
– To create and maintain the register of unit-holders or to delegate this function to the managers;

[46] The legal structure of unit trust should not be confused with that of the unit investment trust, used mainly in the USA, which is a closed-end structure. Loader (2007).

[47] St Giles et al. (2003).

– To replace the manager if he is deemed not to be acting in investors' interest, goes insolvent or if the majority of investors vote to remove him;
– To report any significant irregularity to the supervisory authority.

A separate management company is always required and managerial responsibility rests with the board of directors of the management company. This separate management company can also manage other CIVs' assets. The manager's main business is the provision of fund management and administration services to the unit trust. Under the trust deed, the manager is responsible for:

– Managing the investment of each fund or sub-fund with the aim of achieving the investment objectives and policies of such funds or sub-funds and of carrying out the duties of a manager of a unit trust in accordance with the law and the regulations set by the supervisory authority;
– Carrying on the general administration of the fund.

The manager can delegate the performance of the investment management functions to the investment manager and the administrative functions to the administrator.

The investors in the unit trust are beneficially entitled to an undivided share of the investments subject to the trust and are referred to as unit-holders.

The price of units is determined by the manager of the trust at the current market value of the investments held in each fund or sub-fund. Units are created for new investors and cancelled for redeeming investors in the unit trust. Unit trusts have historically been dual priced with a difference between creation price and cancellation price, thus being the sole CIV with a bid-ask spread and not with a single price. The trust deed gives the manager the right to vary the bid-offer spread to reflect market conditions, with the purpose of allowing the manager to control liquidity. It is also possible now to zero the bid-ask spread.

The unit trust form was the traditional form of collective portfolio management in the United Kingdom and Ireland but both countries have been increasingly integrated in the European CIV market and the corporate structure is gaining in significance at the expense of the unit trust structure. The trust system is also found in Australia, Canada, China, Hong Kong, Malaysia, New Zealand and Singapore. However variations among trust systems are significant in the various countries.[48]

2.5 Open-End Investment Companies

Another alternative legal structure for CIVs which is the most commonly used worldwide is the open-end investment company (OEIC), where the OEIC is a separate legal entity and the investors are shareholders. In many countries, this

[48] OECD (2001).

legal entity is known by the French expression "société d'investissement à capital variable" or by its English translation "investment company with variable capital".[49]

The distinguishing characteristic of OEICs as compared to common contractual funds and unit trusts is the fact that the investor takes the role of shareholder and not of simple unit-holder. In theory, therefore, because the investor is eligible to vote, he can influence the investment strategies of the OEIC, although in practice, active investor participation in the shareholders' meetings is fairly uncommon.[50]

In legal terms, an OEIC is a company, incorporated under special regulations, with a board of directors and shareholders. These special regulations provide that the OEIC must:

– Have an instrument of incorporation (roughly equivalent to the fund rules of a common fund and to the trust deed of a unit trust) which governs the OEIC's activities and contains details of the share classes which the OIEC can issue;
– Have a prospectus providing details of its objectives and operations, such as its investment policy and arrangements for valuing the investment property;
– Prepare annual and half-yearly reports, which must include the OEIC's audited accounts, and which have to be approved by shareholders at the annual general meeting.

Despite their corporate structure, OEICs are also subject to special rules. Unlike what happens in a normal corporation, the capital of an OIEC continues to fluctuate as a result of the issue and/or redemption of shares in connection with new subscriptions and redemptions.

The two bodies responsible for the operation of an OEIC are the authorised corporate director and the depository, with roles very similar to those of the manager and the trustee of a unit trust.

The OEIC's instrument of incorporation normally provides for the existence of several sub-funds, each one characterised by a different investment strategy and a different risk-return combination. In an umbrella OEIC, each sub-fund is a separate compartment, segregated from every other sub-fund. A special class of shares is issued for each of these, replicating the scheme and the benefits of umbrella common funds.

Within the European Union, OEICs may delegate the management of their assets exclusively to management companies. Unlike the management companies of common funds and unit trusts, an OEIC may therefore only be a promoter, or promoter and manager, at the same time, but cannot be manager of the assets of other investment funds.

[49] This legal form is also known with the two acronyms SICAV or ICVC. In the United States of America the official name of this form is "mutual fund". This legal entity is predominant worldwide, mainly because of the size of the US market, and also in some European countries, like Luxembourg, it is the most widespread structure.

[50] St Giles et al. (2003), Turner (2004) and Haslem (2010).

To sum up, despite their different legal structure, in economic terms, OEICs are equivalent to open-end common funds. In fact, if they wish to benefit from UCITS status, OEICs are subject to the same rules and restrictions on their investment policy as harmonised common funds. The custody of the securities and cash must be entrusted to a depositary institution, which carries out the same functions described in the case of common funds. The public documentation required is the same as common funds, with the OEIC's instrument of incorporation replacing the fund rules of the common fund. Morevoer, the costs of OEICs have the same structure as those of common funds.

2.6 Other Asset Management Products

The following paragraphs describe the characteristics of certain products which, from the investor's point of view, have a high rate of replaceability with CIVs and must be seen as their natural competitors. Strictly speaking, in some cases, they are not even real asset management products, as in the case of capital redemption policies, index-linked policies and structured products, but the competition and, in some cases, the crowding-out effect that these products may have on CIVs make it necessary to take a close look at them. In the following order, we will be examining:

– Individual portfolio management, in accordance with mandates given by clients on a discretionary and single basis,
– Capital redemption policies,
– Linked policies, and
– Structured products.

2.6.1 Individual Portfolio Management

In the investment service of individual portfolio management, the portfolio of the investor is managed on a discretionary basis by allocating it in one or more financial instruments, in accordance with a mandate given by the client on a discretionary and individual basis.[51]

The discretionary basis of the individual portfolio management gives the asset manager, in the execution of the investment service, full autonomy in every decision, in accordance with the rules of conduct laid down by regulations and limits established in the management contract.

[51] Within the European Union, the regulation of individual portfolio management has been developed separately from that of CIVs as an offshoot of the wider harmonised investment services regime in 1993 and is now included in the Markets in financial instruments directive II (MiFID II)/Markets in financial instruments regulation (MiFIR) regime.

Individual portfolio management also needs to be carried out on a client-by-client basis. Unlike collective portfolio management, in which the money raised from participants is invested in a group of assets and the investment management service is identical for each investor in the same fund, the investment service of individual portfolio management is characterised by a closer and more personalised relationship between the asset manager and investors, which translates (or, at least, should translate) into a greater personalisation of the service on the basis of each investor's individual characteristics and needs.[52]

For this reason, individual portfolio management based on a discretionary mandate is an investment service with a very high threshold and reserved for high net worth investors. In fact, the construction of a truly individual portfolio for each investor is possible only above a certain minimum threshold, both for objective and for business reasons. The objective reasons are connected to the limit below which portfolio diversification is inefficient, while the business reasons refer to the marginal cost of production of personalised service to the individual investor.

In some cases, this has led those asset managers who offer the service of individual portfolio management to standardise the service, offering investors more management lines differentiated by type of investment and level of risk but with standardised features within each line. In this way, the asset managers can offer the "individual" service for relatively lower costs, by applying the same investment strategy for all those who subscribed the same line, with obvious cost savings and benefits in terms of diversification, although at the expense of actual customisation of the service.

In addition to this, the search for a further reduction of the threshold required for the service of individual portfolio management has led asset managers to use CIVs, instead of shares, bonds or money market instruments. It is therefore possible to construct many combinations of portfolios adaptable to the specific needs of investors. Although, in theory, the possible combinations are endless, in practice, in this case too, each asset manager reduces the actual combinations to a fairly limited number of investment profiles, and individual portfolio management ends up meaning that each investor is assigned to the profile that best matches his characteristics, with the advantage of having many potential investors in each profile, due to the much lower threshold.

In the current offer of asset managers, therefore, there are two types of individual portfolio management, with the same discipline:

– Individual portfolio management allocated mainly in transferable securities and money market instruments, with higher entry thresholds, and
– Individual portfolio management allocated mainly in CIVs, characterised by lower entry thresholds.

For both types of individual portfolio management, the management contract:

[52] Moloney (2014).

– Must be made in writing,
– May give the customer the power to issue binding instructions,
– Must give the customer the option to terminate the contract at any time, without being charged any penalty, and
– Must give the customer the right to vote on the financial instruments representing investments in equity capital, while being allowed the opportunity to give the intermediary the power to exercise voting rights.

The agreement also gives the asset manager the possibility:

– To invest in unlisted securities, derivatives, illiquid or highly volatile securities,
– To carry out short sales, to use financial leverage, to lend securities and do any transaction involving the payment of margins, deposit of collateral or foreign exchange risk.

The investor may terminate the discretionary mandate at any time and consequently request repayment of the capital assigned for individual management or, alternatively, the transfer of financial instruments. The complexity of this service of individual portfolio management requires the asset manager to send periodic full statements, which enable the customer to be fully informed about the transactions carried out at the discretion of the manager and the composition of the managed portfolio, also in order to evaluate that manager's performance.[53]

The transferable securities, money market instruments and cash held by the manager of individual clients constitute separate assets from that of the manager. The separation of the assets of each customer from that of the asset manager is particularly important in the event of insolvency of the same asset manager as it makes possible the restitution of the securities to individual customers.

In relation to costs, individual portfolio management includes:

– A possible initial charge,
– A management fee, and
– Often a performance fee.

2.6.2 Investment-Oriented Insurance Policies

In the last few decades, investment-oriented insurance products have become more and more important as a tool for investment of private client resources in the financial systems of EU countries.

Investment-oriented policies are insurance contracts in which the financial dimension of the contract (the financial return obtained from the investment of premiums) is predominant or even exclusive, when compared to the size of the actuarial component (coverage of a pure risk).

[53] Maude (2006).

In the legal systems of many countries, such products often benefit from a range of regulatory and tax advantages that facilitate their distribution. The widespread use of such products in the financial systems of different countries was also due to the wide gap between insurance products and investment funds in terms of transparency of information, mandatory documentation and rules, a gap which led financial intermediaries to make greater use of insurance products so as to take advantage of simpler procedures, more efficient operating practises and, in some cases, even greater opacity of the contractual conditions.

2.6.2.1 Capital Redemption Policies

Capital redemption policies are contracts whereby the investor-contracting party pays a single premium or, more rarely, a recurring premium to an insurance company that agrees to repay, to a pre-established date, the amounts received increased by the interest accrued during the contract term and provide a minimum guaranteed return, without placing any restriction or reference to the life of the insured person. This particular insurance contract has names and technical characteristics that vary according to the rules of the different countries. The typical feature of capital redemption policies is that their content is exclusively financial, owing to the fact that the commitment of the insurance company does not depend on the occurrence of events relating to human life.

To face the commitments made by the capital redemption contracts, the insurance company establishes an internal management of investments, separate from other assets of the insurance company and governed by specific rules. The premiums paid, net of fees, are invested in this segregated pool, usually allocated predominantly in bonds and other fixed-income securities.

The capital so invested is revalued annually based on the financial performance achieved on the separate management, with a minimum guaranteed return. If the annual return of the internal separate management exceeds the minimum guaranteed return, the revaluation recognised annually is added to the returns already accrued and shall be forfeited definitively by the policyholders, on the basis of a principle known as consolidation of the results.[54]

In addition to the initial charge, the costs for the investor are represented by annual fees for the internal separate management,[55] the costs of security transactions in the separate management and charges in event of surrender during the contract period.[56] At the end of the contract, as an alternative to a revalued capital,

[54] Although less common, it is possible for the accumulated income to be distributed periodically.

[55] In the case of annual fees, the contract often identifies a pre-established retrocession rate, which recognises the investor a percentage of the return on the internal separate management (for example, 98.5 %), while the remainder is held by the insurance company.

[56] As a rule, early surrender is possible one year after the contract is signed.

it is also possible in some cases to convert the accumulated capital into a periodical or life annuity contract.[57]

2.6.2.2 Linked Insurance Policies

The linked policies are forms of insurance in which the commitment of the insurance company is tied to the value of a reference entity. Theoretically, any amount can be taken as a reference. In fact, the identification of the reference base is constrained by regulation and by the market possibilities to make investments able to cover the corresponding technical provisions.[58]

Linked policies can be divided into:

– Unit-linked insurance policies, with performance tied to the value of one or more investment funds, internal or external to the insurance company;
– Index-linked insurance policies, characterised by performance whose size is calculated according to the value of a reference index, also composite.

Both in unit-linked policies and in index-linked policies, the financial component of the contract prevails over the actuarial component, which in both contracts takes the form of the premature death of the insured person when the contract is still valid.

Unit-linked insurance policies are contracts whereby the investor-policyholder pays a single premium or, more rarely, a recurring premium to an insurance company, which invests the capital raised in internal or external investment funds. At the end of the contract, if provided, or upon surrender, the principal repaid depends on the value of the internal or external investment funds in which the insurance company invested the premiums.

In addition to that, if the insured person should die when the contract is still in existence, the beneficiaries of the policy are entitled to the reimbursement of the principal accrued to that date, plus a percentage that will vary depending on the age of the insured person at time of death. In any case, the benefit in case of death is very limited, given the absolute prevalence in such insurance contracts of the financial component compared to the actuarial one.

In practice, in such contracts, the premium (net of fees and of the insurance component in case of death) is invested by the insurance company in internal investment funds (proprietary funds) or in external investment funds (external

[57] The agreement outlined here can be created with different variants. The most common is to put a very limited coverage in case of death. In this variation, the insurance contract, despite having a content almost exclusively financial, is no longer a capital redemption contract, but it becomes a life insurance contract. The limited insurance component makes it possible not to assign a deadline to the contract, which lasts as long as the insured person remains alive, and especially to benefit from the favorable legislation usually reserved to life insurance policies in the various jurisdictions.

[58] Jones (2002).

CIVs). The performance of the unit-linked policy at maturity depends on the performance of these investment funds. It follows that the commitments of the insurance company in unit-linked products are in fact related to the corresponding portion of the assets that constitute a separate pool, resulting in a complete transfer of investment risk from the insurance company to the insured.[59]

At the time of subscription, the investor is often given the opportunity to choose among alternative risk profiles, provided that at a later date switches are allowed from one profile to another. In all cases, at the time of subscription, each investor is recognised a number of units of internal or external investment funds underlying the unit-linked policy, depending on the premium paid and the initial commissions agreed. Because during the contract period the insurance company must update and disseminate the value of this unit (based on the same logic as NAV calculation for CIVs), every investor can evaluate his own position and assess trends over time.

The contract may have a specified maturity or may last the entire life of the insured person. In both cases, the right exists to surrender the contract and, in this case, the surrender value is linked to the value of the internal or external funds to which the unit-linked policy is tied. As an alternative to liquidating the entire capital accrued at maturity, it is possible to convert the accumulated capital into a periodical or life annuity. In the event of the death of the insured person, the beneficiaries collect the accumulated capital at the date of settlement, plus a percentage linked to the age of the insured person at the time of death.

As well as the possible initial charge, costs for the investor are represented by the annual management fee and all additional charges on internal or external investment funds,[60] charges for surrender during the contract period and the cost of the insurance component in case of death, but this component represents a marginal portion of the premium paid by the investor.[61]

The technical characteristics of unit-linked policies can vary from country to country depending on the different laws and regulations applied.

Index-linked insurance policies are contracts in which the investor-policyholder pays a single premium to an insurance company in order to receive a return linked to the development of an underlying index in the form of a participation, a recurring payment or a one-off payment at the expiry, with a guarantee of a minimum return (at least equal to zero), regardless of the index trend.[62]

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[59] The most common version of unit-linked insurance policy does not provide any minimum guaranteed return, although this does not exclude the possibility that in some contracts such a guarantee may be provided.

[60] In the case of annual fees, the contract often identifies a retrocession rate, which recognises the investor a percentage of the return on the internal separate management (for example, 98 %), while the remainder is held by the insurance company.

[61] As a rule, early surrender is possible one year after the contract is signed.

[62] The most common version of index-linked policy provides a minimum guaranteed return from the insurance company, but this does not mean that in some contracts this guarantee may not be provided.

In addition to that, if the insured person should die during the contract, beneficiaries of the policy are entitled to reimbursement of the principal accrued to that date, plus a percentage that varies according to the age of the insured person at time of death. As in the case of unit-linked policies, the benefit in case of death in index-linked policies is rather small, given the absolute prevalence in such insurance contracts of the financial component over the actuarial one.

In practice, in such contracts the premium received, net of fees and of the insurance component in case of death, is invested by the insurance company into structured bonds (or into an equivalent position in bonds and derivatives) on which the value of the index-linked policy depends once it matures. It follows that the insurance company's commitments in the index-linked products are in fact related to the corresponding portion of the assets that constitute a separate pool.[63]

At the time of subscription, each investor is recognised a number of units of the structured bond underlying the index-linked policy, depending on the premium paid and the initial commissions agreed. Because during the contract period the insurer must update and spread the value of the structured security, in index-linked policies too, every investor is able to evaluate his position and to assess trends over time.

By necessity, the maturity of the contract is specified, although the surrender option is allowed, with the insured person in this case receiving a sum tied to the current value of the structured bond to which the index-linked insurance policy is tied. Instead of liquidating the entire capital accrued at maturity, it is possible to convert the accumulated capital into a periodical or life annuity. In the event of the death of the insured person, beneficiaries collect the accumulated capital on that date, plus a percentage linked to the age of the insured person at the time of death.

As well as the possible initial charge, the costs for the investor are represented by the annual charges, the implicit cost emerging from the possible misalignment between the fair value of the derivative component included in the structured bond and the effective price paid by the policyholder, charges for surrender during the contract period and the cost of the insurance component in case of death, although this component represents a marginal portion of the premium paid by the policyholder. The technical features of index-linked policies may vary according to the specific rules in force in the different countries.

2.6.3 Structured Products

Structured products are financial instruments issued by banks or other financial institutions with varying terms, payouts and risk profiles, providing a return linked to the performance of one or more reference entities. There are no standardised structured products: the terms, payouts and risk profiles of each instrument are

[63] The risk of default of the issuer of the structured security related to the index-linked policy can be taken or not by the insurance, depending on the country concerned and the applicable rules.

bespoke and determined at the time of issue. These products can be bought "off the shelf" or individually tailored to the specific market needs or views of the investor, in order to match his desired risk-return combination and expectations.

One of the key characteristics of structured products is that the return is not determined by active investment but by a pre-specified formula that sets out how the product will perform in any possible future scenario. In any case, structured products are a combination of a traditional investment and one or more derivatives, which are bundled into a securitised instrument. Derivatives embedded in structured products may be plain vanilla or exotic and are linked to a variety of asset classes, mainly equity but also interest rates, currency rates, commodities and other types of assets.

The main strengths inherent in investing in structured products are the following:

- Structured products are instruments that can be used as an alternative to traditional investment categories while providing additional attractive features, such as capital protection, yield enhancement, participation, leverage or a combination of these;
- They offer a simple and cost effective access to a wide range of markets;
- When listed, they can be traded in the same way as shares;
- They can offer geared or ungeared performance;
- Depending on their specific features, they can generate a positive return whether the performance of the underlying asset is static, bullish or bearish;
- They can have built-in currency risk-management features;[64]
- The maximum potential loss on structured products is known;
- They do not require margin calls or dedicated accounts;
- They can be originated in order to be tax efficient, respecting the fiscal rules of each country.[65]

On the other hand, the main weaknesses and drawbacks of investing in structured products are:

- Unlike investment funds, structured products bear an issuer risk. In the event of the issuer's insolvency, repayment may not be made at maturity, which would mean the total loss of the capital invested. If the issuer's financial standing deteriorates during the life of the instrument, the price of the product on the secondary market may fall and a sale before maturity could lead to partial or even total loss of the capital invested. Even products with capital protection are exposed to issuer risk. The issuer's financial standing is thus extremely important, unlike in the case of investment funds.
- In most cases, the valuation and risk analysis of structured products is not straightforward and requires suitable pricing tools and financial knowledge of

[64] Where an underlying asset is denominated in a foreign currency, some structured products incorporate a "quanto" feature which ensures that the product is constantly fully hedged for currency risk. The cost of hedging varies and is built into the price of the instrument. Other structured products can be unhedged and are therefore exposed to currency risk.

[65] Tolle et al. (2008) and London Stock Exchange Group (2013).

the different pricing models. As a consequence, these instruments can be affected, at least in theory, by a potential mispricing between the fair value of the derivative embedded in the structured product and the price actually paid by the investor at the date of purchase.
- An investment in a structured product does not give the investor any of the rights associated with the ownership of the underlying, such as voting rights, subscription rights, dividends or interest.
- When unlisted, they bear a strong liquidity risk, i.e. the possibility that the investor may not be able to dispose of a structured product at any given time or at a reasonable market price. The payout profile of a structured product defined in advance is always valid only at the end of the term. Before the end of the term, it may not be possible to sell the product at an acceptable price, for example because no binding prices are available for it.

Structured products can be split into different categories depending on their pay-off structure, as this has a direct impact on their potential risk and return. In particular, the European Structured Investment Products Association (EUSIPA) classifies structured products in four main categories:

- Capital protection products,
- Yield enhancement products,
- Participation products, and
- Leverage products.[66]

Capital protection products offer partial or total protection of the par value (between 90 % and 100 %) at maturity, subject to credit risk of the issuer. In addition, these instruments offer a possible return linked to the development of an underlying, in the form of participation, a recurring payment or a one-off payment at expiry. Products belonging to this category are suitable for risk-averse investors. Capital protection products can be structured to perform positively in rising or falling markets and should be chosen in accordance with market expectations over the lifetime of the product.

Yield enhancement products offer a limited (capped) upside return, usually in the form of a fixed coupon or, as an alternative, in the form of a discount. Investors forgo an unlimited participation in favour of a recurring or one-off payment. Products belonging to this category may offer a conditional capital protection, in which case the protection is granted only if a predefined "condition" is met (i.e. a barrier has not been touched). Also these instruments are subject to the credit risk of the issuer. Yield enhancement products are suitable for investors with a moderate to increased appetite for risk and the expectation of markets moving sideways over the lifetime of the product.

Participation products usually offer unleveraged participation in the performance of one or multiple underlyings. These products may offer a conditional

[66] Swiss Bankers Association (2008) and EUSIPA (2014).

capital protection, in which case the protection is granted only if a predefined "condition" is met (i.e. a barrier has not been touched). Participation products are subject to credit risk. These products are suitable for investors with a moderate to increased appetite for risk. Market expectation should be a directional move (up or down) over the lifetime of the product.

Leverage products offer investors the opportunity to track an underlying instrument with a geared performance. For example a three-to-one leverage tracker would increase in value at a rate that is three times the growth rate of the underlying asset. Gearing reflects how much the price of the structured product will change in reaction to a given change in the price or value of the underlying asset. Some instruments have distinct structures, resulting in an inverse relationship with the underlying asset, and are called inverse trackers. If the price of the underlying asset decreases, the value of the reverse tracker increases. These products may be suited to investors with a strong bearish view of the underlying asset. Leverage products, therefore, are only suitable for investors with a high risk appetite. Leverage products can also be used to hedge risks, in which case they reduce the risk of a portfolio. Market expectation should be a strong up- or downwards move, and products are best used as short-term speculative investments requiring daily supervision, or as a hedge.

It is generally considered that capital-protection products carry the least risk of the four categories, followed by yield-enhanced products, participation products and finally leverage products, which carry the most risk. The reality is that any instrument, regardless of product class, can be structured with various features, and each instrument must be assessed according to its specific terms and not by general product grouping.

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http://www.springer.com/978-3-319-32795-2

Asset Management and Institutional Investors
Basile, I.; Ferrari, P. (Eds.)
2016, XIII, 468 p. 82 illus., 58 illus. in color., Hardcover
ISBN: 978-3-319-32795-2