# INVESTMENT FUNDS IN HUNGARY: 30 YEARS OF AN INSTITUTION

## DEVELOPMENT AND CHARACTERISTICS OF INVESTMENT FUNDS BASED ON STATISTICAL DATA

2022

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A study by the Statistical Directorate of the Magyar Nemzeti Bank, led by Director János Gerendás

Contributors: Nikoletta Mischele Magyar, András Németh, Gabriella Rusznák, Béla Simon, Aliz Szűcs

This publication is based on data available up to October 2022.

Published by the Magyar Nemzeti Bank

Publisher in charge: Eszter Hergár

H-1013 Budapest, Krisztina körút 55.

www.mnb.hu

ISSN 978-615-5318-61-0 (on-line)

# Contents

# 1 Introduction

Investment funds are the only passive organisational form that is automatically accepted by the statistical methodology as a separate institutional unit and has even had separate groups and subsectors created for the separate and detailed presentation of these institutions as financial intermediaries. The reason for this is that the methodology considers investment funds to be market institutions that carry out real transactions and real transformations between the assets acquired on the market and the resources collected, connecting investors and targeted investments through their balance sheets.

With the exception of insurance products, investment funds may invest in all kinds of financial instruments (deposits, loans, various debt securities, shares and other equity, shares of other investment funds, derivatives), and acquire real estate. This is the only organisational form that qualifies as a financial intermediary even when it invests in non-financial assets, i.e. real estate, and even when a majority of its assets are held in non-financial assets, with real estate development or real estate management becoming its principal activity.

Investment funds have traditionally been regarded as portfolio investors that hold smaller quantities of various assets and change their assets regularly. At the same time, investment funds are collective investment forms that offer their issued investment fund shares essentially to portfolio investors, thereby attracting many small investors. In recent decades, however, funds have also been created through which large institutional investors (insurance corporations, pension funds, other investment funds) invest and manage specific assets. More recently, forms of investment have also emerged that specifically manage the assets of a single private investor or even single assets of a private investor. These strands of development exploit the various beneficial features of investment funds.

Investment funds are passive holders of assets (they have no organisation or employees), but investment fund managers enable them to acquire assets and assume liabilities, and enter into transactions with other market participants, on their own behalf. This passive character is therefore mere appearance; in fact, the past decades have seen very serious change and development in the investment funds sector, both in terms of the form and value of the investments, the number of funds and the range of investors. This publication has been compiled to present that development path and the resulting diversity on the basis of the statistical information available at the central bank.

In Hungary the first investment funds were launched in 1992. At the end of 1992, their assets slightly exceeded 0.2 per cent of GDP and 0.1 per cent of the non-consolidated assets of the financial corporations sector. At the end of 2021, the aggregate assets of investment funds amounted to 10 per cent of the non-consolidated assets of the sector and 20 per cent of GDP, far exceeding the assets of any other type of institutional investors (insurance corporations, pension funds). At the end of 2021, there were 820 investment funds and 104 fund managers, comprising the largest group of institutions among financial corporations in cardinal terms. That is why this group of institutions deserves to be addressed in special detail.

## GENERAL CHARACTERISTICS OF INVESTMENT FUNDS

Investment funds are dedicated sets of assets created for a specific purpose and managed by asset management (fund management) corporations. The various investment funds are legal entities, whose formation or establishment is governed by legislation. In formal terms, they have no owner and generally do not pay any property income, and management rights are exercised jointly by the asset management vehicles and the beneficiaries in some form of composition. If they are not part of the general government sector, they are financial entities. In the financial corporations sector, traditional fund-type institutions include the various schemes as well as certain guarantee or insurance entities. However, of the different types of funds, only investment funds are licensed to operate for general investment purposes and to have any type of investors.

An investment fund is an organisational form that allows a range of investors to invest their savings in securities or real estate markets in a simple, secure and cost-effective way, by sharing risks. An investment fund may only be set up and managed by an investment fund manager. The manager company is responsible for setting up the fund, for making, implementing and administering investment decisions, and for informing investors. The fund manager has no direct right of disposal of the assets of the fund: the custodian of choice is responsible for custody of the assets of the fund, conducting securities transactions, and determining and disclosing the net asset value of the fund. Additional parties involved in operating the fund may include distributors, real estate valuers, and consultants.

Investment funds are typified according to several criteria. Such criteria include the method of issuance (establishment), the term of the fund, and its asset allocation. According to the method of issuance, a distinction is made between public funds, whose shares can be purchased by anyone, and private funds, whose shares can only be purchased by a restricted group of investors, subject to conditions. Open-end funds are usually set up for an indefinite term, and can normally be joined and exited at any time. Shares in closed-end funds may be redeemed only at the end of the specified term, when such funds are dissolved. A closed-end fund may only be joined during the offer period preceding the launch of the fund. During the term, purchases or sales can be made on the secondary market, i.e. the holdings of individual investors may change as (stock exchange) transactions are executed between holders. Funds may also be grouped on the basis of the type of assets in which they invest investors' money. A distinction is primarily made between securities funds and real estate funds. Within the category of securities funds, the simplest product group is that of money market funds, which invest in various money market instruments, bank deposits and short-term government securities and bonds. A separate group is comprised of bond funds, equity funds and mixed funds, as well as derivative funds and capital guaranteed (capital protected) funds.

An investment fund is a pool of assets that is jointly 'owned' by investors and is set up by the fund manager and managed for the benefit of investors (with the assistance of other parties). Out of this jointly held pool of (net) assets, i.e. the net asset value of the fund, the holding of each investor is represented by shares issued by the fund. The proportion of the pooled assets corresponding, at any given point in time, to a single investment share is shown by the net asset value per share (the price of one share in the investment fund). In order to calculate this, the value of the net assets of the fund, i.e. its net asset value, must be determined on an ongoing basis. This is obtained through the valuation of the assets held by the fund and the liabilities of the fund, as the difference of those items.

The value of the shares therefore directly depends on the value of the various assets (and liabilities) held by the fund. Stemming from the nature of a fund's operation, this close relationship also exists between the income due to the fund and the income payable by it. Investment funds may receive rent on use of the real estate owned by them, interest income on interest-bearing financial assets (deposits, securities) owned by them, and dividend income on equity holdings and equity investments. These forms of property income – after deduction of the interest expenses payable on the liabilities and of the operating costs – are due to the shareholders. The property income due to the shareholders and to be paid by the fund issuing the shares is therefore defined in the statistics as the property income received by (due to) the fund, less the costs. Since funds generally do not pay income on shares, but the income is accumulated in the value of the shares and is realised upon redemption, the income is reinvested in the funds. This has the same effect as shareholders constantly buying new shares in addition to their initial investments.

# 2 Historical overview

## 2.1 EVOLUTION OF INVESTMENT FUNDS OVER THE PAST 30 YEARS

*This section provides an overview of the number, type composition and main financial data of investment funds and management companies in Hungary. Detailed data on investment funds are presented in the following sections.*

Mandated by Act LXIII of 1991 on investment funds, the first investment funds in Hungary were launched in 1992. Of the 5 investment funds set up in 1992, 4 were closed-end funds, each scheduled for a fixed term (3–5 years), and one converted into an open-end fund in 1996. The funds set up in the following years were also predominantly closed-end funds; the spread of open-end funds and the conversion of previously created closed-end funds into open-end funds of indefinite terms can be observed from 1995 onwards (Chart 1). From the second half of 1996 only open-end funds were launched. Without exception, the investment funds set up in the initial years were admitted to the Budapest Stock Exchange within a few months of their launch.

**Table 1**
**Number of investment funds and fund managers, number and asset value of new funds, 1992–1999**

| Investment funds' data | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
|---|---|---|---|---|---|---|---|---|
| Number of fund managers (end of year) | 5 | 13 | 14 | 17 | 19 | 22 | 24 | 28 |
| Number of funds (end of year) | 5 | 19 | 34 | 46 | 63 | 66 | 78 | 90 |
| Number of new funds (in year) | 5 | 14 | 15 | 12 | 19 | 11 | 15 | 19 |
| Assets of new funds, HUF billions | 5.1 | 16.0 | 19.8 | 5.1 | 9.3 | 5.8 | 14.1 | 5.0 |

*Source: Hungarian Financial and Stock Exchange Almanac, MNB Statistical Register of Entities.*

The first investment funds were securities funds, and the first real estate funds started in 1993. Two real estate funds were set up in 1993 and 1994 each, and one in 1996. Simultaneously, securities funds gradually became differentiated and specialised: in addition to sovereign debt funds as well as resident equity and bond funds, funds specifically investing in foreign and foreign currency assets emerged in the last years of the decade, accompanied with the launch of some money market funds. The number of investment funds increased modestly but steadily each year until the end of 2004 (Tables 1 and 2). At the end of 2000, a total of 94 investment funds operated in Hungary, of which 12 were money market funds. The total assets of the funds doubled annually in the first years and rose from 0.24 per cent to 4.27 per cent of GDP between 1992 and the end of 2000 (Chart 2). In the next decades, the growth in assets was less steady and also the number of funds tended to increase in stages. The aggregate assets of investment funds in Hungary amounted to 14.4 per cent of GDP at the end of 2010, and to approximately 20 per cent at the end of 2021. In terms of the asset allocation of the funds, in the first decade debt securities predominated, with the share of different securities ranging from 70 to 85 per cent of the assets. In the next decade, the share of securities in the value of assets gradually decreased to close to 25 per cent and in recent years it fell below 20 per cent. At the same time, within investments the weight of bank deposits and equity holdings (shares, other equity and investment fund shares) increased, and since 2006 these instruments have had the largest share of the aggregate assets of investment funds. The share of non-financial assets (real estate) within the investment total also increased gradually, from 3–6 per cent in the 2000s to around 20 per cent.

**Chart 1**
**Number of open-end and closed-end investment funds at end of the year, 1992–1999**

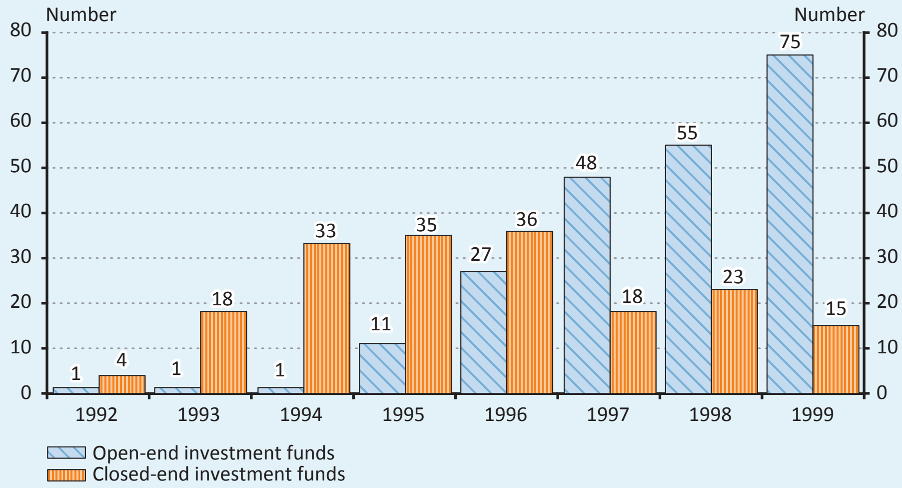
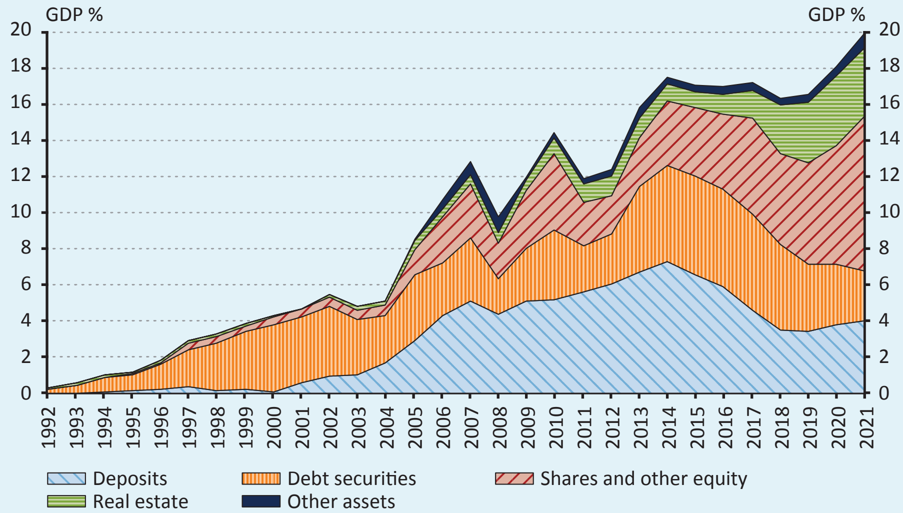



**Chart 2**
**Aggregated assets of investment funds by main asset type as a percentage of GDP, 1992–2021**




*Source: MNB, Financial accounts. Data on venture capital funds and private equity funds are recorded from the end of 2013.*

The first **investment fund management companies** were formed in 1991, and their number gradually increased to exceed 30 by the turn of the millennium. The average number of funds managed by a fund manager simultaneously increased from 1 to 3. In the next decade, the number of investment fund management companies remained essentially unchanged until 2007, while the average number of funds per fund manager jumped above 11 due to the strong increase in the number of funds. Subsequently, in 2008 and 2009 the increase in the number of fund managers was mainly attributable to the emergence of venture capital fund management companies. Fund managers of this new type usually had no funds at the time. The first management companies were typically simple limited liability companies, but due to the transformations starting in 1998, in the 2000s all were companies limited by shares. In 2009, the year with the largest number of fund managers, the aggregate balance sheet total of the 61 management companies amounted to HUF 58 billion, annual sales to HUF 51 billion and after-tax profits to nearly HUF 25 billion. 14 companies were in foreign ownership, 18 were owned by resident individuals, and 7 by credit institutions.

**Table 2**
**Number of investment funds and management companies, with venture capital fund (VCF) managers and money market funds (MMF) highlighted, 2000–2010**

| Investment funds, fund managers | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of fund managers (end of year) | 31 | 31 | 32 | 32 | 30 | 31 | 32 | 32 | 51 | 61 | 57 |
| Number of funds (end of year) | 94 | 105 | 113 | 115 | 136 | 191 | 234 | 357 | 422 | 441 | 485 |
| Venture capital fund managers | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 16 | 24 | 20 |
| Money market funds | 12 | 18 | 21 | 23 | 24 | 32 | 34 | 37 | 40 | 55 | 58 |

*Source: MNB Statistical Register of Entities.*

**Table 3**
**Key financial data of management companies in HUF billions, 2000–2010**

| Data of fund managers | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Balance sheet total | 13.5 | 15.5 | 22.6 | 29.5 | 31.2 | 39.5 | 50.0 | 54.1 | 55.5 | 57.7 | 50.9 |
| Net income | 10.0 | 11.2 | 13.7 | 19.5 | 21.4 | 33.5 | 45.8 | 54.0 | 56.1 | 50.8 | 56.8 |
| Profit after tax | 3.9 | 4.9 | 6.9 | 8.1 | 10.6 | 14.2 | 19.9 | 24.8 | 22.0 | 24.6 | 20.1 |

*Source: Aggregated annual reports of management companies.*

In the 2000s, the number of investment fund management companies almost doubled from 31 to 57 (Table 2). Their aggregated balance sheet total, net income and after-tax profits nearly quintupled (Table 3). At the same time, there was a significant increase in the number of managed funds, from 94 to 485 in ten years. In particular, by the end of the decade, the number of highly popular money market funds rose to 58. Before 2000, there was no venture capital fund in the sector, there were already 10 such funds operating in 2010, and the number of fund managers established primarily to manage venture capital funds was 20.

**Table 4**
**Number of investment funds and management companies, with venture capital fund (VCF) and private equity fund (PEF) managers highlighted, 2011–2021**

| Investment funds, fund managers | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of fund managers (end of year) | 52 | 64 | 72 | 68 | 67 | 68 | 75 | 82 | 95 | 100 | 104 |
| Number of funds (end of year) | 511 | 547 | 571 | 589 | 613 | 634 | 637 | 674 | 715 | 766 | 820 |
| Number of VCF/PEF managers | 16 | 28 | 36 | 33 | 31 | 31 | 35 | 38 | 46 | 51 | 54 |

*Source: MNB Statistical Register of Entities.*

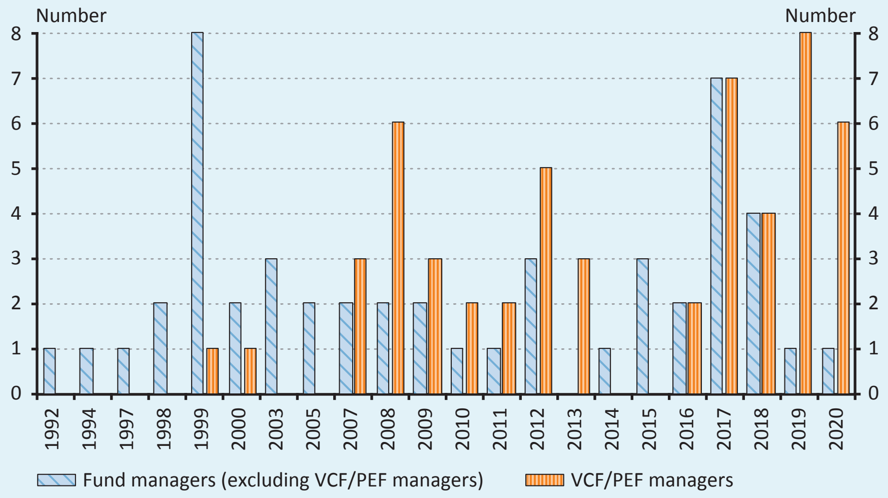
**Table 5**
**Key financial data of management companies in HUF billions, 2011–2021**

| Data of fund managers | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Balance sheet total | 64.0 | 58.5 | 66.2 | 64.6 | 68.8 | 73.8 | 116.0 | 143.4 | 169.3 | 187.4 | 185.9 |
| Equity capital | 41.9 | 35.7 | 43.0 | 40.8 | 42.4 | 48.1 | 52.9 | 69.3 | 93.9 | 100.8 | 107.2 |
| Net income | 47.1 | 43.2 | 55.7 | 64.7 | 65.4 | 66.8 | 65.9 | 69.1 | 95.9 | 91.7 | 102.1 |
| Profit after tax | 14.8 | 12.4 | 18.4 | 22.0 | 23.0 | 24.0 | 26.3 | 27.3 | 50.7 | 43.6 | 44.2 |
| Dividend approved | 17.7 | 11.4 | 14.8 | 26.6 | 18.7 | 20.3 | 22.8 | 23.0 | 42.9 | 36.6 | 34.0 |
| Number of employees (headcount) | 515 | 620 | 690 | 700 | 707 | 756 | 821 | 938 | 1,064 | 1,092 | 1,200 |

*Source: Aggregated annual reports of management companies. Adjusted for accounting changes.*

The number of investment fund managers doubled again in the ten years between 2011 and 2021, while the number of resident managed funds increased at a lower rate than in the previous decade (Table 4). This reduced the average number of funds per fund manager from 10 to 8. Within the group of management companies, the strongest increase was seen in the number of entities managing venture capital and private equity funds, whereby at the end of 2021 there were 54 VCF/PEF managers operating in Hungary, compared to 50 traditional ones. (At the time, there were 151 venture capital and private equity funds in total.) At the end of 2021, the aggregated assets (balance sheet total) of fund managers amounted to HUF 186 billion, with sales of HUF 102 billion and 1,200 employees during the year (Table 5). The value of assets under management – for investment funds alone – was close to HUF 11,000 billion. At the end of 2021, out of 104 companies 5 fund managers were owned by the general government, 18 were majority-owned by individuals, and another 14 had individuals among their owners, while 9 entities were controlled by foreign owners directly, and another 7 indirectly. In 6 of the fund managers, the rights of ownership were exercised by credit institutions, and in 8 of them by other financial institutions (insurance corporations, other fund managers, other financial intermediaries). Similarly to investment funds, investment fund management companies are stable, durable entities. A significant number of normal (traditional) fund managers operating at the end of 2021 were established in the 1990s, and the first major wave of new VCF/PEF managers was between 2007 and 2009 (Chart 3).

**Chart 3**
**Number of investment fund management companies operating at the end of 2021 by year of establishment**

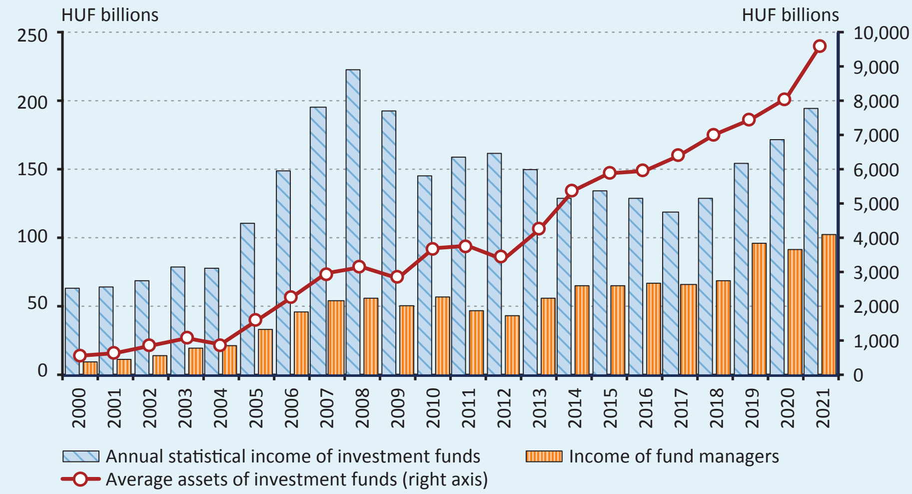



*Source: MNB Statistical Register of Entities.*

The income of the investment fund managers are predominantly revenues from fund management fees, which originate from the investment funds operated and are proportional to the volume of the assets under management (net asset value). Some of the investment fund managers also carry out asset management and portfolio management activities for insurers and benefit providers, but the resulting revenues are usually not significant compared to the revenues related to the investment funds. In the 2000s, the aggregated annual sales of fund managers accounted for almost 2 per cent of the total annual average assets managed in resident funds, and this ratio gradually decreased to approximately 1 per cent in the 2010s and stabilised at that level (Chart 4).

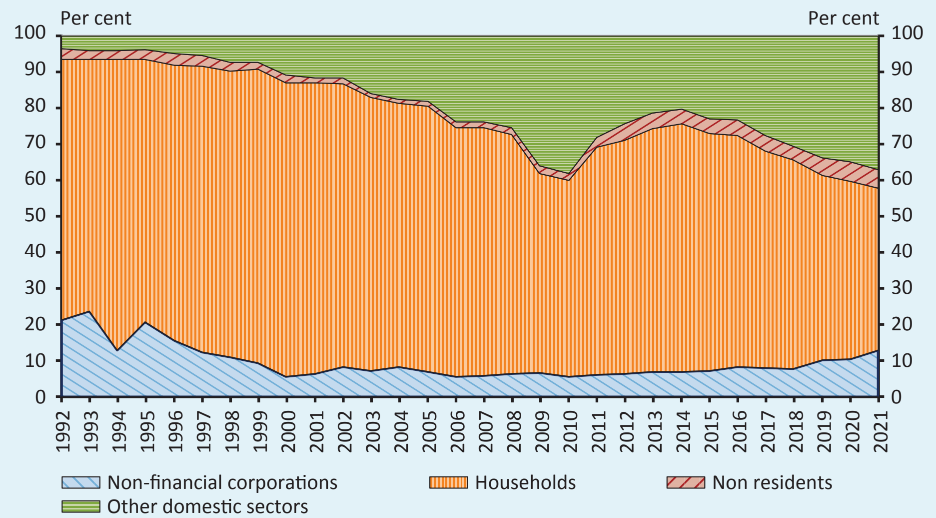
The **annual amount of statistical property income (interest receivable, dividends, rents) on the assets of investment funds** increased strongly until 2008, whereas the ratio of such income to average assets continuously decreased (it was 11 per cent in 2000 and a mere 7 per cent in 2008). After 2008, revenues gradually declined, which contributed to the income to asset ratio falling to approximately 2 per cent by 2017. Subsequently, the increase in property income kept pace with the increase in the assets of the funds, allowing the income ratio to remain above 2 per cent. Regarding the relationship between the property income earned by investment funds and the fees withdrawn by fund managers, it can be said that in 2000 the fund management fees accounted for 16 per cent of statistical revenues, the ratio of which, following a gradual increase, has already exceeded 50 per cent in recent years. This implies that the statistical property income paid to shareholders and creditors for the liabilities of investment funds represented a progressively decreasing proportion of the income earned by the funds. However, shareholders may actually have earned higher incomes as the statistical income category does not include revaluation gains reflected in asset appreciation. The change in the asset allocation of investment funds indicates that in the past decades the portfolio has shifted from assets primarily generating interest income to instruments generating revaluation gains (equity holdings, real estates), but the returns and gains generated here are generally not recognised in the statistics as income.

**Chart 4**
**Annual statistical income and average assets of investment funds and annual income of fund managers, 2000–2021**




The **ownership structure of shares** issued by resident investment funds (representing their net asset value) has changed significantly over the past 30 years (Chart 5). While resident households (individuals, self-employed persons) make up the largest shareholder sector in terms of investment fund shares, their share of net assets has gradually decreased from around 80 per cent in the first decade to around 50 per cent. The household investments dented by the crisis that started in 2008 were successfully recovered by the funds in subsequent years, but afterwards additional investments were mainly received from institutional investors (insurers, benefit providers, credit institutions, other companies, and funds). (In 2008, Hungarian investment funds lost HUF 674 billion in assets, of which HUF 530 billion affected households.) Investment funds in Hungary primarily offer investment opportunities to domestic (Hungarian resident) investors, with the ownership of foreign investors in the funds varying between 1 per cent and 5 per cent in the last 30 years.

**Chart 5**
**Value of investment fund shares issued by resident funds by main shareholder sector, 1992–2021**




*Source: MNB, Financial accounts. Data on venture capital funds and private equity funds are recorded from the end of 2013.*

## 2.2 DEVELOPMENT OF DOMESTIC LEGISLATION ON INVESTMENT FUNDS

The legal regulation of investment funds in Hungary started with 'Act LXIII of 1991 on Investment Funds', which was adopted to facilitate the investment of the savings of households and other market participants by providing the necessary expertise and the sharing of risks. According to the provisions of the Act, the owners of an investment fund are the holders of the investment fund shares, who own an amount of the jointly held assets in proportion of the value of their shares to the net asset value of the fund. The Act governed the setup, management and operation in the territory of the Republic of Hungary of an investment securities fund or real estate fund, whether public or private. The scope of the Act excluded the setup and operation of any private investment fund where the number of owners did not exceed 20 or the equity capital of the fund did not exceed HUF 100 million.

The Act defined an investment fund as a fund with a legal personality, which was to be formed by a company conducting investment fund management activities through the public offering of investment fund shares, or through the investment of privately collected capital in securities (securities fund) or real estate (real estate fund), and managed under a general mandate from shareholders in the fund.

An investment fund share was defined as a transferable security issued in a series by the fund manager in a manner and form determined by the Act, and granting the pecuniary and other rights specified in the Act, whereby the issuer, acknowledging the provision to it of a certain amount of money, undertook to use that money for the setup of or placement in an investment fund in the interest of the shareholder (investor), and to manage the investment fund under a general mandate from the investors.

In terms of the liquidity of the investment fund shares, the Act classified investment funds into two categories. An open-end fund was defined as an investment fund where the fund manager placed redeemable shares on the market and distributes them; whereas in the case of a closed-end fund, the shares are not redeemable. In the Act, therefore, a redeemable investment fund share was defined as a security issued by the fund manager of the open-end investment fund on behalf of the fund, whereby the issuer undertook to repurchase the share in accordance with the provisions of the Act, in the manner specified in the fund management rules, for cash at the net asset value on the date specified by the investor. Net asset value was defined as the value of the investment fund's equity capital remaining after deducting all of the fund's liabilities, returns being the increase in the investment fund's equity capital less tax and management costs.

For the purposes of the Act, the fund manager, the custodian and their activities were key terms. A fund manager was defined as a limited liability company or an incorporated company that issuing only registered shares, which is licenced specified by the Act to carry out investment fund management activities. In doing so, the fund manager was permitted to set up an investment fund in accordance with the investment principles announced by it under the Act, and in order to provide the highest attainable return, it was permitted to sell and purchase, at its own discretion, certain assets (securities or real estate) in the portfolio of the investment fund in accordance with the investment principles announced for the fund. A custodian was defined as a bank or specialised credit institution registered in Hungary that provided investment fund custody on behalf of the fund manager. In doing so, the custodian was mandated by the fund manager to keep custody and handle the securities held by the investment fund, to maintenance the bank account or securities account of the investment fund, as well as to perform the technical activities related to the sale and redemption of the investment fund shares, the payment of returns, the determination of the net asset value in the case of open-end funds, and to carry out the specific control of fund managers.

The legislation on investment funds also covered the determination of the net asset value. The net asset value of a securities fund was calculated on the basis of the previous day's price of the securities it held and the value of its liquid assets. For the calculation of the net asset value, securities held by the securities fund were to be taken into account at the average exchange price weighted by trading volume if listed or traded on the stock exchange, and at the daily (closing) price for securities that were not listed but traded in the public securities market. In addition, the detailed rules for the calculation of the net asset value (valuation methods for each class or type of security, the procedure used in the calculation, etc.) had to be included in the management rules of the investment fund. The custodian was required to determine and disclose the net asset value of an open-end securities fund on a daily basis, and the net asset value of a closed-end securities fund at least twice a month, on the 15th day of each month or the following first business day, and on the last day of each month or the following first business day. In the case of a real estate fund, the net asset value had to be determined on the basis of the total value of the real estate owned by the fund and its liquid assets, considering that the valuation of the real estate must not be more than three months old.

The Act also required the investment fund manager to issue a prospectus to inform investors about the investment fund, which was also a condition for the public offering of the investment fund shares. It was mandatory for the prospectus to include all information required to assess the operation, investment principles, management and risk of investing in the investment fund. It was prohibited for the prospectus to contain any future promises or comparisons with investment funds managed by other fund managers. The fund manager was obliged to disclose a semi-annual report within sixty days of the end of the first half of the year concerned. Within 120 days of the closing of the financial year concerned, disclosure was required of an annual report on the activities of the investment fund during the year.

The 1991 Act was superseded by Act CXX of 2001 on the Capital Market (Capital Market Act), which has received several amendments since its adoption. In its section on investment funds, the version currently in force mostly refers to the terms defined in Act XVI of 2014 on Collective Investment Schemes and Their Managers, and on the Amendment of Certain Financial Regulations (Collective Investment Schemes Act).

Compared to the 1991 Act, the Collective Investment Schemes Act applies a much broader definition to investment funds, investment fund managers, custodians and their activities, as well as on the issuing of investment fund shares and their distribution; also adds as a condition that, in the case of international regulation does not require otherwise.

The changes are also reflected in the interpretative provisions. An investment fund is defined as a form of collective investment undertaking set up under the conditions laid down in the Act, i.e. any collective investment which raises capital from multiple investors with the purpose to invest it accordance with a specific investment policy for the benefit of the investors. The Act distinguished between undertakings for collective investment in transferable securities (UCITS), and alternative investment funds (AIF), which are collective investment schemes not qualifying as UCITS, including fund of funds.

Net asset value is defined in this Act as the value of assets held in an investment fund, including active accruals and receivables from loans granted, less all liabilities, including passive accruals. A fund manager is either an alternative investment fund manager (AIFM) licensed to pursue investment fund management activities, or a UCITS management company. The Act also includes definitions for venture capital and private equity fund. A venture capital fund is defined as a closed-end AIF that, according to its investment policy, intends to invest at least 70 per cent of its aggregated capital contribution and undrawn capital in enterprises in their early stages of business development, and whose collective investment instruments are offered privately and exclusively to professional investors, and that are unleveraged. In contrast, a private equity fund is defined as a closed-end AIF set up for the buying of companies or sections of companies (including acquisition), whose collective investment instruments are offered privately to professional investors only, which are not leveraged and which do not grant investors redemption rights during a period of five years following the date of initial investment.

According to the Collective Investment Schemes Act, the net asset value of the investment fund and the net asset value per investment fund share shall be determined at individual share class level of the fund, using the latest market price indices relating to the investment fund's assets, or based on professional appraisal in the case of illiquid assets, following the instructions set out in the investment fund's management policy. The net asset value of an investment fund shall be calculated based on the fund's management policy by the custodian, the appraiser or the AIFM. Compared to the 1991 Act, for public open-end investment funds, in addition to the annual and semi-annual reports, the disclosure requirements also include a monthly portfolio report, which is to be disclosed by the 10th business day following the last day of the period concerned. In the case of a public closed-end investment fund or a private investment fund, compliance with compulsory disclosure is required according to the Capital Market Act, taking into account the provisions of Regulation (EU) 2015/2365 of the European Parliament and of the Council.

It is also important to mention Act CXCIII of 2011 on Investment Fund Managers and Collective Investment Schemes (Investment Funds Act) and 5 Government Decrees, all of which have contributed to the completion of the legislation of investment funds in Hungary. These government regulations are the following: (1) Government Decree No 215/2000 (XII. 11.) on the special provisions regarding the annual reporting and accounting obligations of investment funds; (2) Government Decree No 216/2000 (XII. 11.) on the special provisions regarding the annual reporting and accounting obligations of venture capital companies and venture capital funds; (3) Government Decree No 327/2009 (XII. 29.) on the special features applicable to the compilation of annual reporting and accounting obligations of other corporations also pursuing money and capital market services; (4) Government Decree No 79/2014 (III. 14.) on the organisational, conflict of interest, conduct of business and risk management requirements for UCITS management companies; (5) Government Decree No 78/2014. (III. 14.) on the investment and borrowing policies of collective investment schemes.

## 2.3 INTERNATIONAL AND HUNGARIAN STATISTICAL REGULATION OF INVESTMENT FUNDS

### Data collections and provisions by the European Central Bank (ECB)

The ECB has been collecting data on non-money market investment funds from national central banks since 2003. Up to the end of 2008, national central banks transmitted to the ECB the aggregate data available to them (from any data source); accordingly, those statistics were not based on harmonised methodological foundations, allowing for imputation to fill any data gaps by means of estimates, whereby the data were only partially comparable. In terms of content, the ECB collected stock data and statistical flows data for some balance sheet items of the funds, broken down by investment policy and type of investor. The breakdown of assets and liabilities by geographical location, counterparty sector and maturity within the data scope was limited, and in many cases even the ECB had to resort to estimates for the compilation of euro area aggregates. In addition, the heterogeneity of the data (for example due to the different valuation method) and variations in data coverage across Member States made the economic analysis of the investment funds sector difficult.

To address these shortcomings, in 2004 the ECB launched a process for a regulation. In preparation for this, it requested reporting agents and data users to complete a fact-finding questionnaire, followed by a cost-benefit assessment. Subsequently, the ECB's main user committees determined the usefulness of each data requirement. Once the costs and benefits were matched, the drafting of the Regulation began, with opinions formulated in the working groups. As a result of these exercises, the ECB created the legal basis for the statistical framework. On 27 July 2007, the Governing Council of the ECB adopted Regulation ECB/2007/8, which provided for the collection of statistical information on the assets and liabilities of investment funds. The Regulation and the related ECB Guidelines (ECB/2007/9) provided for up-to-date, reliable and harmonised methodological statistical information that was directly applicable to the euro area. The Regulation also required monthly and quarterly reporting to the ECB. Under the Regulation, the central banks of the Member States reported data from 2009 until the end of 2014. The methodological basis for the data request was the international statistical standard on the System of National Accounts (SNA, ESA), while legislators also took into account the specificities of sectoral accounting and market regulations.

Due to the change in the international methodology for national accounts and related financial statistics and increased user requirements, the process of amending the Regulation was re-launched in 2012, with the adoption of the amended Regulation ECB/2013/38 by the Governing Council of the ECB on 18 October 2013 and the preparation of the Guidelines for monetary and financial statistics (ECB/2014/15) related to the amended Regulation in April 2014. In December 2017, the ECB also published a manual with the aim of providing clear methodological guidance to support central banks in the accurate compilation of the data requirements set out in the Regulation.

In 2021, the ECB re-launched the process for amending the regulation on the collection of investment fund data by means of fact-finding and cost assessment questionnaires. While the new reporting regulation is expected to take its final form in 2023, it can already be perceived that much more detailed data needs will have to be met and higher frequency data reporting will need to be introduced in the coming years. The statistical data collection established under the current Regulation does not include detailed characteristics and data describing the specificities of investment funds. This raised the need for regular reporting on the characteristics presenting the operational and investment characteristics of the funds in a deeper breakdown and the grouping of data along these characteristics. In addition, the introduction of a geographical and maturity breakdown for certain instruments is envisaged by the ECB, and in order to identify instruments without

ISIN, the monitoring of their key data is also included in the draft. As a new element, the Regulation is set to incorporate the characteristics of financial derivatives and the fees of the funds.

According to international statistical methodologies, money market funds belong to the monetary financial institutions sector and as such are not regulated in the aforementioned ECB regulations on investment funds, but in the framework of the regulations on monetary balance sheet statistics (together with data provided by credit institutions and central banks). In May 2010, the CESR[1] published new guidelines on common definitions to support the classification of European money market funds for supervisory purposes. Subsequently, in 2011 the ECB redefined money market funds by means of a regulation, which has been implemented in Hungarian statistical practice since 2012. On the basis of the criteria contained in the officially issued definition, fund managers have examined the funds managed by them to determine whether, according to the new definition, they qualify as money market funds in terms of their investment policies. The definition defined the scope, type, maturity and rating of assets in which money market funds could invest. Money market funds that did not meet the criteria after the half-year preparation period were transferred to non-monetary market investment funds and were included as such in the statistics published by the Magyar Nemzeti Bank (MNB).

Regulation (EU) 2017/1131 (14 June 2017) of the European Parliament and of the Council governed the operation of money market funds set up, managed or traded in the European Union, and included provisions for the financial instruments eligible for investment by the funds, their portfolios, the valuation of the latter, and reporting obligations.

## Collection and publication of data on investment funds by the Organisation for Economic Co-operation and Development (OECD)

The MNB has been providing data to the OECD on the assets and liabilities of institutional investor subsectors in the financial corporations sector within the framework of the OECD Institutional Investors Statistics since the late 1990s. Quarterly statistics dating back to 1989 cover investment funds, insurance companies and pension funds, broken down by type of fund for investment funds and by branch of insurance for insurance companies. The data are sourced from the financial account statistics of the MNB, whereas more granular data by type of fund are derived from monetary statistics.

The OECD collects and publishes institutional investor statistics on the basis of international standards for national accounts (SNA, ESA) and has not established any independent methodological rules in this area. The manuals of the national accounts divide the resident economy into 5 main sectors, with further subsectors within each. Entities in the financial corporations sector (S.12) are broken down into 9 subsectors in the statistics, of which money market funds (S.123) and other investment funds (S.124) are separate subsectors. The methodology for the national accounts does not provide any reference for the disaggregation of investment funds other than money market funds into additional types, nor do the international reporting standards based on this methodology allow for disaggregation below the level of subsectors. In the System of National Accounts, the financial and non-financial parts of the balance sheet are presented separately, where statistics on financial and non-financial assets are generally compiled using different data sources and methods, without any arrangements for integration. That is why the OECD practice of placing institutional investor data collection within the framework of national accounts is unique.

## Statistical regulation, data collection and reporting in Hungary

In 1997, the MNB launched regular statistical data collection on investment funds, insurance corporations and securities distributors. Prior to that, only the supervisory data collection exercises of the HFSA were available on the subsectors of the financial corporations sector other than credit institutions, i.e. institutional investors. Investment fund managers initially submitted data on the investment funds managed by them within the framework of the National Statistical Data Collection Program (OSAP), and from 2009 onwards, on the basis of the data reporting regulation of the MNB. In the first years, the MNB requested the main instruments in the portfolio and the main shareholder sectors of the net asset value from the fund managers on a monthly basis. From 2003 onwards, as the ECB's statistical data requirements were introduced, a more detailed geographical and sectoral breakdown was added to the data collection. From 2017, fund

[1] Committee of European Securities Regulators

managers managing venture capital and private equity funds have also been required to report on their funds of these types. Via custodians for securities distributors, the MNB also collects disaggregated data on the sectors holding the shares issued by investment funds, along with the characteristics such shares have in common with all other securities. In addition to the above, the MNB maintains statistical registers on the key data of various entities and securities, which support the grouping and categorisation of entities (for our purposes, funds) and securities. The data collected are used for international data reporting (to the ECB, Eurostat, the IMF and the OECD), domestic data transfers and various monthly and quarterly publications that appear on the MNB's website and are consistent with one another.

The most frequent and detailed central bank statistics on investment funds are compiled in the **monthly publication on the balance sheet of investment funds** in the context of monetary and other financial statistics. Here, the disaggregated portfolio data by main instrument is available on the MNB's website dating back to January 1998, with sets of net asset value by shareholder sector included in the time series dating back to June 1998. From 2019, the data of the investment funds are also available in a more detailed breakdown, in an interactive form. The reported data include data on venture capital funds and private equity funds from the end of 2017. This monthly publication is adequately supplemented by monthly statistics showing the breakdown of securities holdings by issuer and holder, covering all securities.

The **financial accounts statistics** available on the MNB's website present the financial assets of all sectors of the national economy and the components of the change in assets, thus providing information on money market funds (S.123) and other investment funds (S.124). In these statistics, data on venture capital and private equity funds have been included in the data of other investment funds since the end of 2013, before which their assets were shown in the sector of other financial intermediaries. In order to ensure the consistency of the data at the level of the national economy, the financial assets and liabilities of the individual sectors are not necessarily presented from the data sources of the sectors concerned, but the data of the counterparty sectors are also used. Therefore, the data reported on money market and other investment funds may also differ (to a small extent) from the aggregated data published in the context of monetary and other financial statistics, which are specifically derived from the balance sheet of investment funds.

In the **framework of supervisory statistics**, the MNB also reports data on investment funds and the financial institutions managing them in the information relating to capital market organisations. In the Golden Book, the annual balance sheets and profit and loss accounts of investment fund managers, the number and net asset value of the managed funds are presented, and among the quarterly time series, the number of funds and fund managers and the net asset value of the funds are also published by type of fund. Data on venture capital fund managers and the venture capital and private equity funds they manage are only included in supervisory statistical reports between 2015 and 2019, and from 2020 onwards these entities will no longer belong to the supervised institutions. The supervisory data collection exercises and the statistical publications compiled by reference to them include all investment funds of supervised resident fund managers, consequently covering the data of some foreign funds along with the data of resident funds.

# 3 Investment funds data 2010–2021

*This section presents detailed statistical data on domestic investment funds (resident in Hungary). Quantitative data (number of items, classification by type) are sourced from the MNB's Statistical Register of Entities and Securities. The primary source of value data (data on the size of assets and income) is the monetary and other financial statistics of the MNB (based on the statistical balance sheet data of investment funds); however, data from securities statistics and financial accounts are also used. Detailed data can be compiled from these data sources from 2010 onwards.*

## 3.1 TYPES AND NUMBER OF INVESTMENT FUNDS

The number of investment funds well illustrates the development of the sector, changes in investor behaviour and market trends in individual periods. For a better understanding of the developments, it is also important to know the types of investment funds, which also serve as indicators. Investment funds can be classified into nine types according to investment policy.

**Money market funds**[2] are the most common type of fund and typically invest their capital in short-term bonds and bank deposits. Funds of this type offer investment opportunities to those seeking to invest their temporarily released cash for the short term, with a high degree of liquidity and diversification. These funds provide a competitive alternative to bank deposits, both in terms of returns and liquidity, with bond investments enabling them to generate returns above the interest earned on bank deposits. Investment fund shares can be redeemed at any time, without the need for commitment in exchange for higher returns. As the plan reacts sensitively to changes in the interest rate environment, the weight of this type can change significantly within the investment funds sector. Within money market funds, liquidity funds represent a distinct category where the average remaining maturity of the assets in the fund's portfolio may not exceed 60 days, and the average remaining life of the assets at 6 months. Accordingly, it may also act as an alternative to bank deposits. Money market funds where the average remaining maturity of the assets in the fund's portfolio is less than 6 months and the average remaining life of the assets may not exceed 12 months are mainly used to deposit intra-year savings, and as such can best function as an alternative to short-term deposits.

In the case of **bond funds**, investment fund shares are primarily used by investors to invest their capital in bonds. As with money market funds, investment fund shares can be accessed at any time, but this type is used to commit funds over the course of a year and involves higher risk. In terms of the average remaining maturity, a distinction can be made between short-term and long-term bond funds, as well as free maturity bond funds. In the case of short-term bond funds, the average remaining maturity of the assets in the portfolio is between 6 months and 3 years; in the case of long-term bond funds, this exceeds 3 years; in the case of free maturity bond funds, there is no predetermined maturity.

**Equity funds** serve a long-term investment objective. The portfolio of the equity fund is predominantly composed of shares issued by various companies, and the ratio of equity-type assets may exceed 80 per cent. Due to the high equity exposure, their returns can be significant in an appropriate market environment. Considering the high level of risk involved, it is recommended to hold investments for at least 5–7 years to reduce their risk and increase returns.

[2] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R1131&from=HU

The combination of the previous two types is referred to as a **mixed fund**, affording a distinction between three categories, which differ mainly in terms of risk. The first is the conservative – or bond-oriented – mixed fund, where up to 35 per cent of the portfolio is held in non-bond assets, and the proportion of non-equity assets (e.g. real estate, commodities) may not exceed at 20 per cent. The term of the fund is usually between 1 and 3 years. The next two subgroups are the balanced and the dynamic mixed funds. In the case of the former, the ratio of non-bond assets varies between 35 per cent and 65 per cent, while in the case of the latter the ratio exceeds 65 per cent. With both groups, non-equity assets may represent up to 40 per cent of the total. The average remaining maturity for the balanced mixed fund is between 3 and 5 years, while the dynamic mixed fund is recommended for a holding period of 5–7 years. They are capable of exceeding the returns achieved on government securities. Another characteristic of mixed funds is that their portfolio is composed of the shares of other funds. Such funds of funds may offer more cost-efficient operations and a better risk profile.

**Guaranteed or protected funds** are funds where the investment fund manager acting on behalf of the investment fund has a guarantee or promise regarding the protection of capital and returns. Pursuant to the Collective Investment Trust Act, a performance guarantee only applies in the context of a guarantee provided by a credit institution or suretyship insurance, and yield protection only applies where an underlying investment policy is in place. For the plan to work properly, a high level of risk-free return is required, allowing the funds to invest all or part of the future risk-free return in risky assets, typically in some option scheme, which gives them the ability to outperform a benchmark.

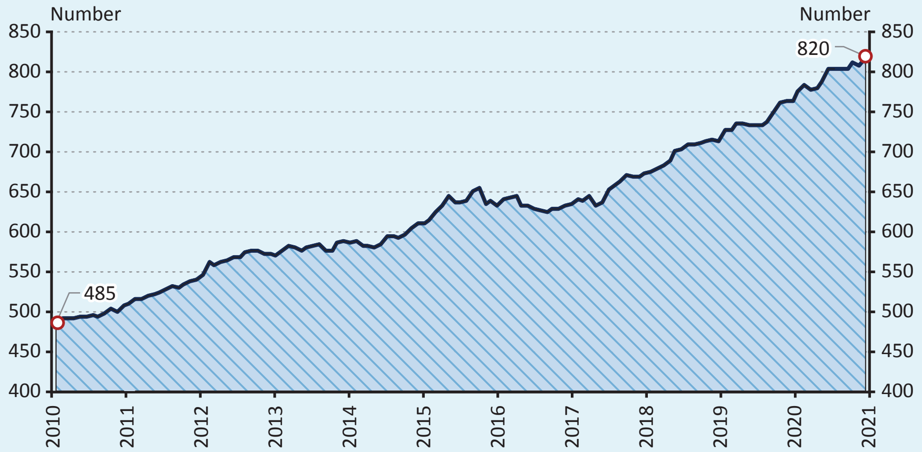
Given its investment policy, a **derivative investment fund** may also hold derivative products in its portfolio, with the aim of achieving a higher level of return. A derivative is a market product whose value depends on the price of another (underlying) product. The risk of a derivative fund is highly dependent on the price movements of the underlying products. This type of fund is characterised by active portfolio management, and derivatives enable such funds to respond to virtually any market event. For these funds, the person and experience of the fund manager are of utmost importance.

Apart from the abovementioned securities funds, a separate group is comprised of **real estate funds** where the funds are licensed to invest in commercial and residential property, with investments in securities permitted for liquidity purposes only. Real estate funds fall into two categories, one being funds investing directly in real estate, where the real estate exposure is realised by holding real estate directly. The other category consists of funds investing in real estate indirectly, which realise real estate exposure over 40 per cent indirectly by investing in other funds or real estate shares.

Compared to the investment policy of securities funds and real estate funds, **venture capital and private equity funds** conduct equity investments in a different way. A venture capital fund is a closed-end alternative investment fund that conducts venture capital investments through which it finances companies in their early stage (also known as the seed phase). Investors in the fund expect higher than average returns in exchange for the expected higher risk. A private equity fund is another type of closed-end alternative investment fund set up to finance the acquisition of companies or sections of companies, which is not leveraged, and whose shares are offered exclusively to professional investors, and which cannot be redeemed within five years of the date of the initial investment.

Finally, the group of **other funds** is comprised of special funds that cannot be included in any of the above types. This category includes funds that invest in the shares of other funds but change one of their original characteristics. In a typical scheme, the primary objective of the fund is to map the performance of the shares (funds) held in its portfolio in a currency other than its original currency, usually in HUF or USD. The exchange rate risk of the original currency is eliminated by the fund through foreign currency hedges.

**Chart 6**
**Development of the number of investment funds, 2010–2021**




*Source: MNB Statistical Register of Entities. Includes the number of venture capital and private equity funds.*

The number of investment funds increased from 485 at the end of 2010 to 820 at the end of 2021 (Chart 6). Except for two periods, the increase was almost unbroken in those years. The first stagnation in the number of funds was seen from the second half of 2013 to the second half of 2015, and the second, from the first half of 2016 to the first half of 2018. In both cases, the slowdown was caused by the poor performance of global equity markets. From the second half of 2018 there was a significant increase in the number of funds, which was due to the capital market activity heated by the abundance of liquidity prevailing at the time. Subsequently, only minor decreases in numbers can be observed, for example as a result of the onset of the COVID-19 crisis in early 2020.

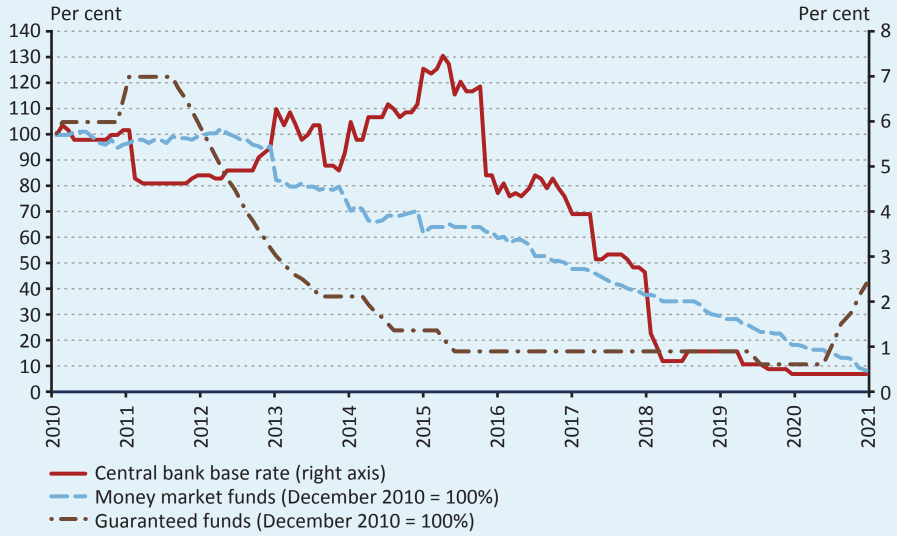
**Table 6**
**Number of investment funds per type of fund at end of the year, 2010–2021**

| Year | Money market | Bond | Equity | Venture capital and private equity | Mixed | Guaranteed | Derivative | Real estate | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 2010 | 58 | 31 | 99 | 10 | 42 | 136 | 52 | 32 | 25 | 485 |
| 2011 | 59 | 37 | 101 | 15 | 50 | 132 | 58 | 32 | 27 | 511 |
| 2012 | 49 | 62 | 98 | 19 | 47 | 136 | 75 | 33 | 28 | 547 |
| 2013 | 64 | 66 | 94 | 34 | 53 | 112 | 88 | 34 | 26 | 571 |
| 2014 | 61 | 63 | 89 | 42 | 70 | 96 | 100 | 35 | 33 | 589 |
| 2015 | 73 | 61 | 84 | 43 | 86 | 84 | 111 | 35 | 36 | 613 |
| 2016 | 45 | 60 | 90 | 46 | 106 | 81 | 111 | 53 | 42 | 634 |
| 2017 | 40 | 56 | 93 | 49 | 110 | 65 | 113 | 69 | 42 | 637 |
| 2018 | 27 | 56 | 96 | 67 | 112 | 51 | 117 | 105 | 43 | 674 |
| 2019 | 9 | 71 | 96 | 84 | 119 | 40 | 118 | 138 | 40 | 715 |
| 2020 | 4 | 73 | 105 | 113 | 120 | 25 | 116 | 168 | 42 | 766 |
| 2021 | 4 | 72 | 110 | 151 | 126 | 11 | 115 | 194 | 37 | 820 |

*Source: MNB Statistical Register of Entities.*

For each type of fund, there were significant rearrangements in the number of funds over the period observed. The apparent losers of the period were the money market and guaranteed funds. The reasons for the drastic decrease in numbers of the two types are the low returns environment that gradually emerged in the 2010s and the change in the legislative framework. As both money market and guaranteed plans respond sensitively to changes in the interest rate environment, the number of funds decreased from 58 to 4, and respectively from 136 to 11, between 2010 and the end of 2021. In case of money market funds, the significant decrease in their number between 2018 and 2019 (from 27 to 9) was caused by the entry into force of an EU regulation that created more stringent legal conditions for money market funds than before. For that reason, many fund managers decided to convert their money market funds into bond funds (increasing the number of bond funds to 71 in 2019), or close them down. Guaranteed funds were the largest type of fund in 2010. The performance or capital guarantee of the plan was made possible by the high returns available on the market. With the change in the interest rate environment, guaranteed plans became unviable, which deterred fund managers from launching new funds.

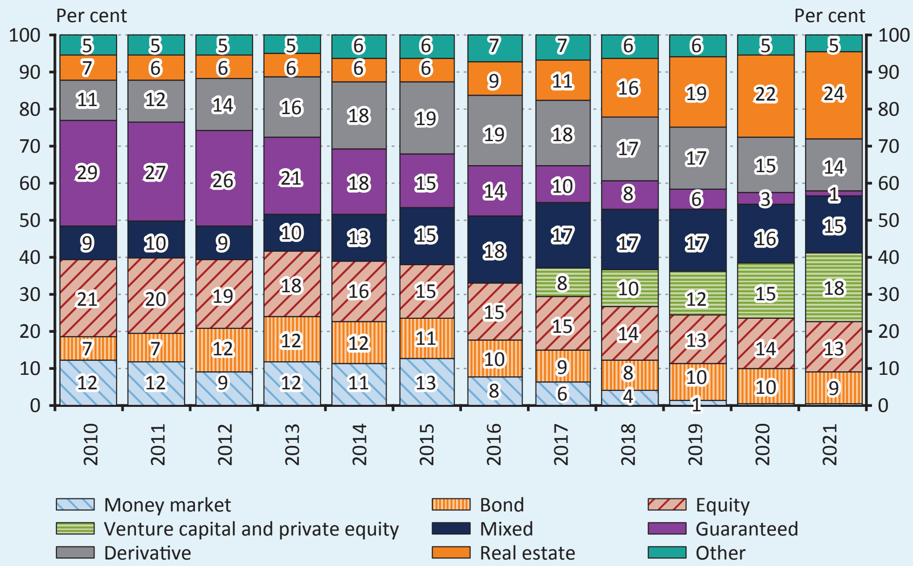
**Chart 7**
**Percentage changes in the number of money market funds and guaranteed funds and the central bank base rate**




*Source: MNB Statistical Register of Entities. Includes the number of venture capital and private equity funds.*

The key interest rate declined from 6 per cent at the beginning of 2010 to 0.6 per cent at the end of 2020, driving even investors with a lower risk tolerance, who preferred capital guarantees and guaranteed returns, towards higher-risk plans (Chart 7). As a result of this investor attitude and the significant improvement of income and wealth conditions in Hungary – except for money market and guaranteed funds – the basic number of almost all types of fund started to increase dramatically. The number of venture capital and private equity funds, real estate funds and mixed funds increased the most. Of these, the fastest increase was seen in the number of real estate funds, from 32 in 2010 to 194 in the end of 2021. The process was heated by strong growth in real estate prices and developments, which led to a surge in the number of real estate funds after 2016. The number of private funds related to individual real estate projects increased dramatically in this period.

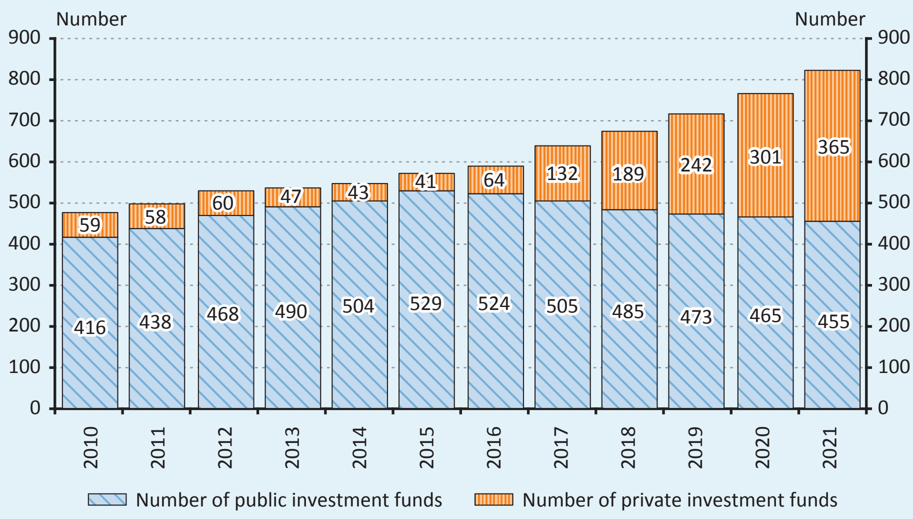
**Chart 8**
**Distribution of the number of investment funds per type of fund at end of the year, 2010–2021**




*Note: the data include the number of venture capital funds and private equity funds from 2017*

In 2010, the three largest fund types accounted for 62 per cent of the total number of funds (guaranteed funds for 29 per cent, equity funds for 21 per cent, and money market funds for 12 per cent). Of the three types, the share of the guaranteed type should be highlighted in particular, given that none of the fund types was able to achieve such a high proportion afterwards. These three types of fund accounted for only 14 per cent of the total number in 2021. The figures show that fund managers can quickly adjust their product range to current market developments. In 2021, venture capital and private equity funds, real estate funds and mixed funds accounted for 57 per cent of all funds. The expansion of real estate funds is clear: by the end of 2021, it was the largest fund type with a share of 24 per cent, followed by venture capital and private equity funds with 18 per cent, and mixed funds with 15 per cent. The most significant decline is seen in the number of guaranteed and money market funds, with the former falling from 29 per cent in 2010 to 1 per cent, and the latter from 12 per cent to nearly 0 per cent. Some types of fund had a relatively steady market share throughout the period under review, such as other funds with an average share of 6 per cent, and bonds and derivative funds with an average share of 10 per cent and 16 per cent, respectively.

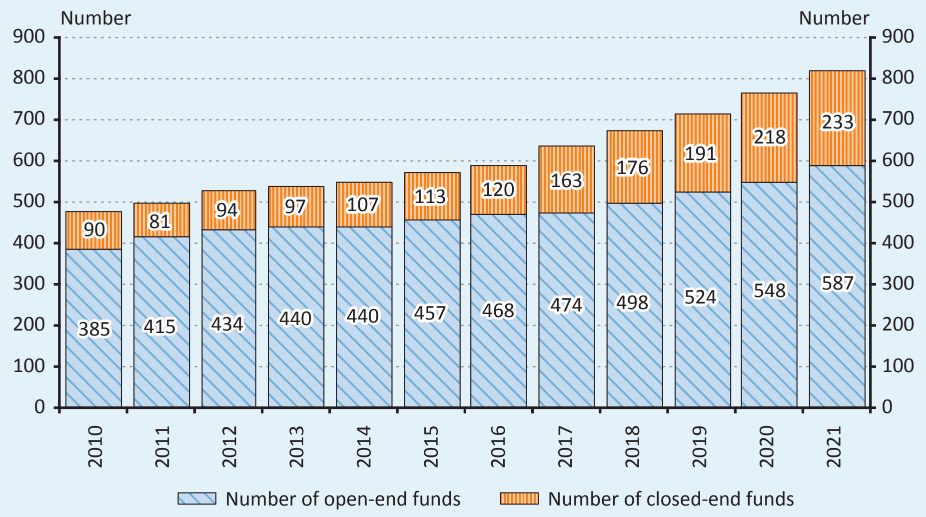
**Chart 9**
**Number of investment funds by publicity at end of the year, 2010–2021**




*Note: the data include the number of venture capital funds and private equity funds from 2017*

In terms of publicity, investment funds may be public or private. Public investment funds are widely available investment vehicles, while private investment funds are only available to a predetermined range of investors. The increase in the number of funds between 2010 and 2021 was caused by the increase in the number of private investment funds. While at the end of 2010, 14 per cent of the 485 investment funds were private investment funds, at the end of 2021, these funds accounted for 45 per cent of the 820 funds (Chart 9). Venture capital and private equity funds and real estate funds accounted for 90 per cent of the 365 private investment funds in circulation in 2021. In the period under review, the average number of public investment funds per year was approximately 480, the number of such funds being the highest in 2015 at 529, with a subsequent decrease in 2021 to 455. The figures show that the market of investment funds has seen a major transformation in terms of its internal structure: in 2021, almost one-half of the funds in circulation in Hungary were funds that were only available to restricted investor groups.

**Chart 10**
**Number of investment funds by liquidity at end of the year, 2010–2021**




*Note: the data include the number of venture capital funds and private equity funds from 2017*

In terms of liquidity, investment funds may be divided into open-end and closed-end funds. In this case, liquidity refers to the redeemability of their shares. Typically, shares in closed-end funds cannot be redeemed before maturity or only under certain conditions, as opposed to open-end funds, which can be redeemed at any time. The term of closed-end funds is usually aligned to an investment event that is well defined in time, which can be a fixed-term option structure or a real estate development project. In contrast, open-end funds may exist for decades.

From 2010 onwards, the number of both open-end and closed-end funds increased significantly (Chart 10). The number of open-end funds rose by 52 per cent and that of closed-end funds by 130 per cent between 2010 and 2021. Similarly to private investment funds, venture capital and private equity funds and real estate funds accounted for 88 per cent of the number of closed-end funds at the end of 2021.

**Table 7**
**Distribution of the number of investment funds by liquidity and publicity, 2010–2021**

| Year | Closed-end private funds | Open-end private funds | Private funds (total) | Closed-end public funds | Open-end public funds | Public funds (total) |
|---|---|---|---|---|---|---|
| 2010 | 3% | 9% | 12% | 16% | 72% | 88% |
| 2011 | 3% | 9% | 12% | 13% | 75% | 88% |
| 2012 | 2% | 9% | 11% | 16% | 73% | 89% |
| 2013 | 1% | 8% | 9% | 17% | 74% | 91% |
| 2014 | 0% | 7% | 8% | 19% | 73% | 92% |
| 2015 | 1% | 7% | 7% | 19% | 74% | 93% |
| 2016 | 2% | 9% | 11% | 19% | 71% | 89% |
| 2017 | 11% | 10% | 21% | 15% | 65% | 79% |
| 2018 | 15% | 13% | 28% | 11% | 61% | 72% |
| 2019 | 17% | 16% | 34% | 9% | 57% | 66% |
| 2020 | 22% | 17% | 39% | 6% | 54% | 61% |
| 2021 | 25% | 19% | 45% | 3% | 53% | 55% |

Looking at the liquidity and publicity of investment funds together, it can be seen that the ratios prevailing in 2010–2015 have been shifting steadily towards private investment funds since 2016, with the ratio of closed-end private investment funds increasing the fastest. By the end of 2021, these funds were the second most populous form of operation among investment funds, with a share of 25 per cent. More than 70 per cent of these funds were venture capital and private equity funds, and 25 per cent were real estate funds. In addition to closed-end private investment funds, the number of open-end public funds also increased considerably, reaching 19 per cent of all funds by 2021. 80 per cent of these funds were real estate funds. Throughout the period under review, open-end public investment funds retained the largest share, but their weight decreased from 72 per cent at the end of 2010 to 53 per cent.

**UCITS Directive**

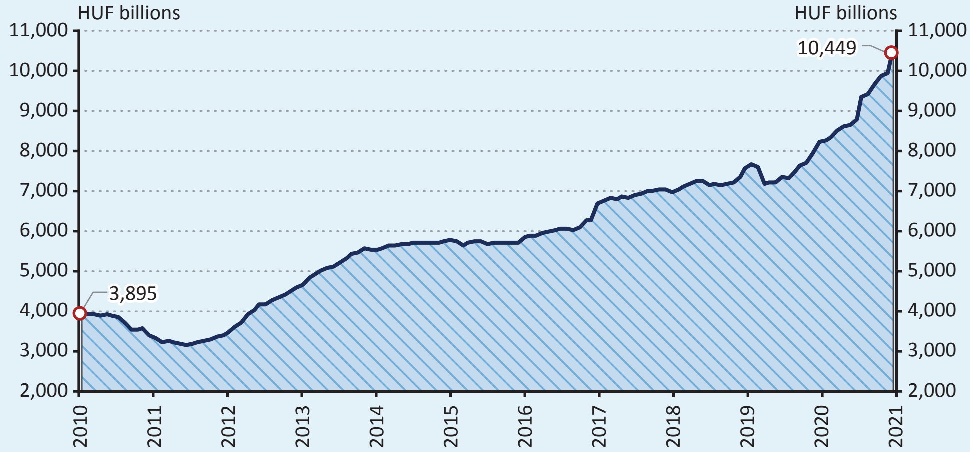
Investment funds may be grouped according to whether their organisation and investment activities comply with Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009[3]. That Directive concerns the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS), and is referred to as UCITS Directive in Act XVI of 2014 (Collective Investment Trust Act). Investment funds that comply with the Directive are included in the UCITS category, and otherwise in the non-UCITS category. In Hungary, the number of non-UCITS investment funds was 784 at the end of 2021, while the number of UCITS investment funds was only 36.

## 3.2 NET ASSET VALUE OF INVESTMENT FUNDS

The net asset value of an investment fund shows the real value of the capital shareholders have placed in the fund. The term 'net assets' refers to the deduction of the liabilities of the fund from the market value of all the assets owned by the fund. The net asset value of each fund is regularly calculated by determining the market value of all assets held by the fund. The net asset value is used to determine the price of the shares issued, also known as the net asset value per share, which is obtained by dividing the net asset value by the number of shares. This indicator is used to accurately monitor the market position of investment funds.

[3] Amendment of Council Directive 85/611/EEC of 20 December 1985.

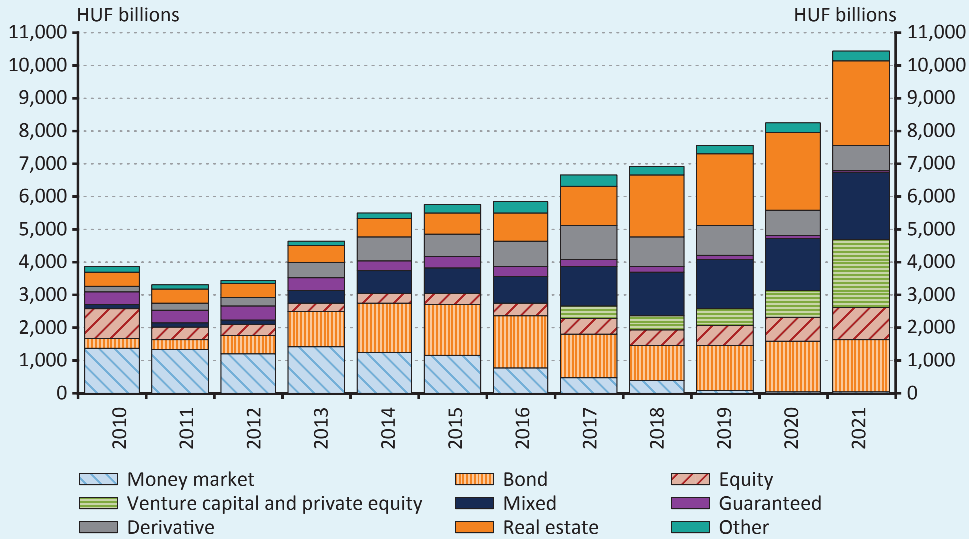
**Chart 11**
**Development of the net asset value of investment funds, December 2010 – December 2021**




*Source: MNB Monetary and other financial statistics and securities statistics.*

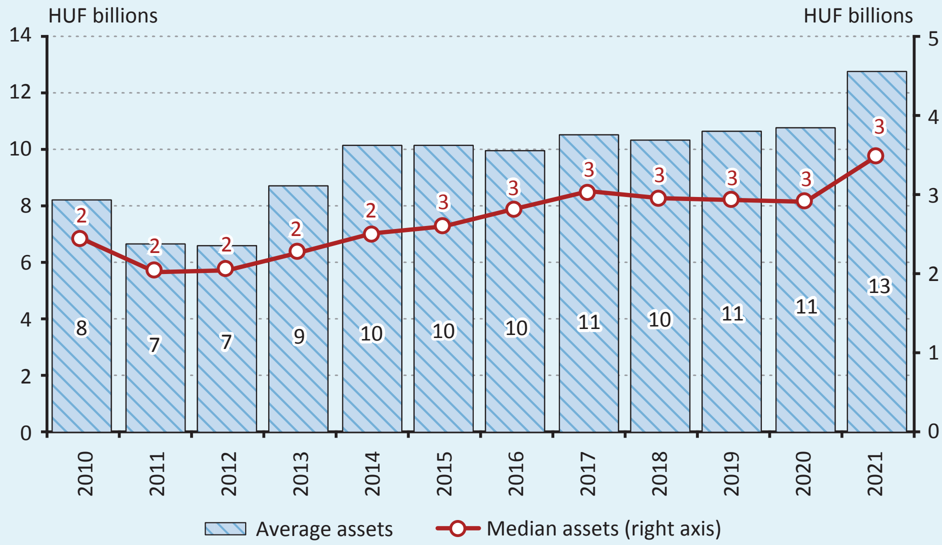
Similarly to the number of investment funds, the net asset value of the funds showed strong growth in the time period examined, with the value of investment fund shares issued increasing from HUF 3,895 billion at the end of 2010 close to HUF 10,450 billion by the end of 2021 (Chart 11). There are only two major declines along that path of this steady growth. One occurred in the period from mid-2011 to mid-2012, due to the protracted impact of the European debt crisis. At that time, the net asset value of investment funds decreased by nearly HUF 1,000 billion in one year. The other significant decline occurred in March 2020 after the coronavirus outbreak was declared as a pandemic by the World Health Organization (WHO). Due to the uncertain environment, investors – especially households – started to withdraw their savings from the funds, leading to the largest monthly decrease in net asset value in the history of Hungarian investment funds, by more than HUF 400 billion. As a result of transactions, HUF 260 billion exited the funds at that time, accompanied by price revaluation of a similar magnitude, while the exchange rate changes were able to slightly moderate the volume of the fall. After the shock, investor trust returned, and the assets managed in investment funds increased continuously from August 2020 until the end of the period under review.

**Chart 12**
**Net asset value of investment funds by type of fund at end of year, 2010–2021**



Considering the period from the end of 2010 to the end of 2021, similarly to the number of funds, significant rearrangements occurred in the distribution of the net asset value of the investment funds by type of fund. Initially, the volume of assets managed by money market funds accounted for 35 per cent of the stock data with HUF 1,377 billion, and by the end of the period, this ratio was close to 0, with a total net asset value of HUF 30 billion. Guaranteed funds did not perform well either, but the dynamics of the decrease can be seen as moderate compared to money market funds. In 2010, they held 10 per cent of the net asset value, while in 2021 they comprised the lowest asset volume category with HUF 24 billion. The share of other funds within the total stock data stagnated, ranging between 3 per cent and 5 per cent in the examined period, and the net asset value increased from HUF 182 billion to HUF 294 billion. Initially, there was an increase in derivative funds, with their stock growing from HUF 153 billion to over HUF 1000 billion by the end of 2017, and their share increasing from 4 per cent to 15 per cent. However, for derivative funds 2018 was a turning point, both outstanding amounts and its proportion started to fall, and by the end of 2021 they had only HUF 774 billion worth of assets, which represented 7 per cent of the net asset value of the investment funds. Compared to the aforementioned type, the opposite can be observed for equity funds. At the beginning of the period, they made up the second largest category with a share of 22 per cent, which then decreased to 5 per cent by the end of 2014, recovering at a slow rate to 10 per cent by the end of 2021. Bond funds played a leading role in the investment fund market between 2014 and 2017, with a ratio varying between 20 per cent and 28 per cent, and net asset value between HUF 1,300 billion to 1,600 billion. At the end of the time period examined, they represented 15 per cent, mostly due to the rapid growth of the first 3 categories. The absolute winners are real estate and mixed funds. Starting from HUF 131 billion, the net asset value of the latter category grew steadily to nearly HUF 2,100 billion, increasing its share from 3 per cent to 20 per cent, which developed from being the lowest-ranking type of fund to being the second largest by 2021. Real estate funds took the lead in 2018: their net asset value increased from HUF 459 billion to more than HUF 2,500 billion in the period between 2010 and 2021, which represents quarter of the outstanding amounts of investment fund shares issued. The increase in the assets of venture capital and private equity funds was also significant; by the end of 2021 they accounted for nearly 20 per cent of the net asset value of investment funds, and their holdings exceeded HUF 2,000 billion.

**Chart 13**
**Average and median assets of investment funds at end of the year, 2010–2021**




The evolution of the average and median assets of the funds over time reveals a lot about the internal structure of the investment fund market (Chart 13). Average assets can be determined by calculating the arithmetic mean, which is the ratio between the net asset value to the number of investment funds. This calculation method is sensitive to outliers, with the possibility of some funds with larger stocks significantly shifting the value of average assets. Median assets represent the middle value within the series. This is obtained by sorting the net asset values of the funds by size, and then selecting the data in the middle position. When the net asset values of the investment funds do not differ significantly from one another, the average and the median assets will show similar values. In the period under review, despite the dynamic increase in the number and net asset value of investment funds, both the average and the median assets increased (Chart 13). Between the end of 2010 and the end of 2021, average assets increased from HUF 8 billion to HUF 13 billion, and median assets from HUF 2 billion to HUF 3 billion. It can therefore be observed that overall the net asset value of investment funds increased over the period. However, as the values of the average and the median assets are far apart and the difference between them has almost doubled, there are large differences between the net asset values of the investment funds, with outliers.

**Table 8**
**Changes in the number, net asset value and the average and median net asset value of investment funds by type of fund (HUF billions)**

| Type of fund | December 2010 | | | | December 2021 | | | |
|---|---|---|---|---|---|---|---|---|
| | Number | Net asset value | Average assets | Median assets | Number | Net asset value | Average assets | Median assets |
| Money market | 58 | 1,377 | 24 | 7 | 4 | 30 | 8 | 8 |
| Bond | 31 | 326 | 11 | 3 | 72 | 1,618 | 22 | 9 |
| Equity | 99 | 875 | 9 | 3 | 110 | 998 | 9 | 5 |
| Venture capital and private equity | – | – | – | – | 151 | 2,032 | 13 | 3 |
| Mixed | 42 | 131 | 3 | 1 | 126 | 2,089 | 17 | 4 |
| Guaranteed | 136 | 391 | 3 | 2 | 11 | 24 | 2 | 2 |
| Derivative | 52 | 153 | 3 | 1 | 115 | 774 | 7 | 2 |
| Real estate | 32 | 459 | 14 | 3 | 194 | 2,590 | 13 | 2 |
| Other | 25 | 182 | 7 | 1 | 37 | 294 | 8 | 4 |
| Total | 475 | 3,895 | 8 | 2 | 820 | 10,449 | 13 | 3 |

A comparison of the average and median assets data for December 2010 and December 2021 by type of fund implies that each type has undergone a major change. Average assets declined in three categories, stagnation is seen in equity funds, while the value increased in four types (Table 8). The comparisons cannot be made for venture capital and private equity funds, as data collection for these funds started later than 2010. In terms of median assets, the value increased for all types of funds, except for the stagnation of guaranteed funds and the decrease of real estate funds. At the end of 2010, money market funds ranked first in terms of both average and median assets, which position bond funds took over by 2021. This is therefore the category with the most funds that have high net asset value, in proportion to the number of funds. By contrast, guaranteed funds hold the most funds with a low net asset value, also in proportion to the number of funds.

**Table 9**
**Concentration of investment funds by asset size at end of the year, 2010–2021**

| Year | Size categories of investment funds by net asset value (HUF billions) | | | | | | | | | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | < 5 | | 5 – 10 | | 10 – 50 | | 50 – 100 | | 100 < | | | |
| | pcs | HUF billions | pcs | HUF billions | pcs | HUF billions | pcs | HUF billions | pcs | HUF billions | pcs | HUF billions |
| 2010 | 340 | 590 | 59 | 406 | 63 | 1,411 | 9 | 603 | 4 | 886 | 475 | 3,895 |
| 2011 | 374 | 593 | 63 | 447 | 50 | 1,092 | 6 | 405 | 3 | 765 | 496 | 3,303 |
| 2012 | 408 | 698 | 48 | 343 | 64 | 1,337 | 4 | 242 | 4 | 844 | 528 | 3,464 |
| 2013 | 392 | 687 | 64 | 446 | 62 | 1,369 | 13 | 839 | 6 | 1,322 | 537 | 4,663 |
| 2014 | 376 | 668 | 68 | 486 | 76 | 1,593 | 19 | 1,187 | 8 | 1,594 | 547 | 5,529 |
| 2015 | 392 | 714 | 65 | 461 | 88 | 1,929 | 17 | 1,150 | 8 | 1,525 | 570 | 5,778 |
| 2016 | 395 | 720 | 80 | 570 | 92 | 2,050 | 12 | 823 | 9 | 1,675 | 588 | 5,839 |
| 2017 | 414 | 793 | 90 | 626 | 110 | 2,586 | 14 | 987 | 9 | 1,701 | 637 | 6,693 |
| 2018 | 452 | 865 | 82 | 587 | 116 | 2,435 | 15 | 1,013 | 9 | 2,051 | 674 | 6,952 |
| 2019 | 474 | 892 | 89 | 627 | 125 | 2,675 | 17 | 1,073 | 10 | 2,313 | 715 | 7,580 |
| 2020 | 493 | 867 | 114 | 817 | 133 | 2,943 | 15 | 1,067 | 11 | 2,552 | 766 | 8,245 |
| 2021 | 485 | 860 | 144 | 1044 | 152 | 3,326 | 22 | 1,529 | 17 | 3,691 | 820 | 10,449 |

Table 9 shows the number of investment funds and their aggregate net asset value by asset size. Data on venture capital and private equity funds are included in this compilation from 2017. Investment funds with a net asset value of less than HUF 5 billion were the most populous category throughout the period under review, and their number increased from 340 to 485. Initially, the total value of their investment fund shares issued accounted HUF 590 billion, which increased to HUF 860 billion by the end of 2021, making them the smallest category in terms of aggregate net asset value. In the case of funds with a net asset value of more than HUF 100 billion, the opposite statements can be made. In 2010, this category only included 4 funds, but they accounted for more than a quarter of the total net asset value. By the end of the period, their number grew to 17, and these investment funds constituted the category with the largest aggregate net asset value at HUF 3,691 billion. The largest category of net assets, above HUF 100 billion, was dominated by money market funds in 2010, with a net asset value of HUF 570 billion for the two funds concerned. At the end of the period, 5 real estate funds contributed approximately HUF 1,500 billion, accounting for 15 per cent of the net asset value of all investment funds.

**Chart 14**
**Deciles of investment funds based on the size of their net asset value, 2010–2021**

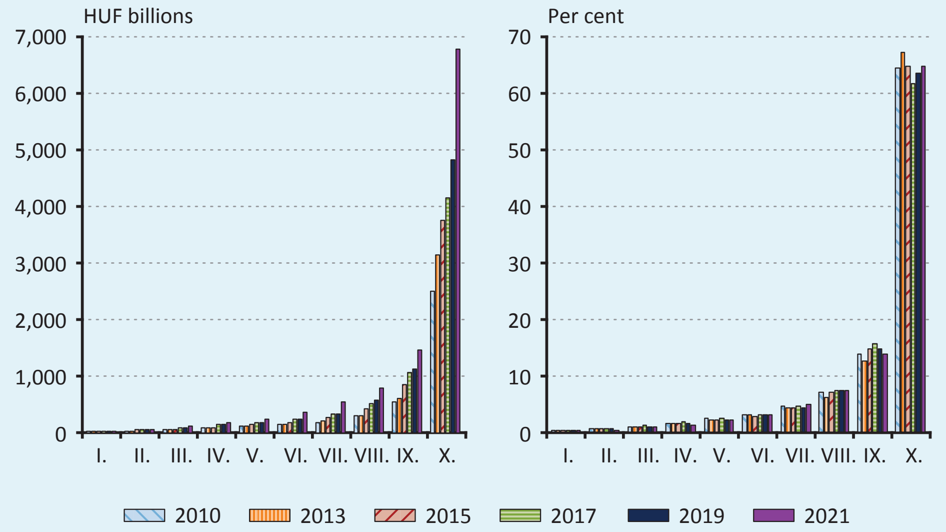



Chart 14 shows the distribution of assets by deciles based on the size of net asset value, where the left side showing the stock data of net asset value, and the right side showing their distribution in percentage. At the end of 2010, taking into account the total net asset value of 475 funds worth HUF 3,895 billion, it is striking that the first 9 deciles account for only 35 per cent of the assets of all investment funds, while the largest decile accounts for a significant share of 65 per cent. Looking at the data for December 2021 – taking into account the total net assets of HUF 10,449 billion from 820 funds – it can be observed that stocks increased in each decile, but the distribution remained almost unchanged for each decile throughout the period.

**Table 10**
**Herfindahl–Hirschman index of the net asset value of investment funds, 2010–2021**

| Year | Venture capital and private equity | Money market | Bond | Equity | Mixed | Guaranteed | Derivative | Real estate | Other |
|---|---|---|---|---|---|---|---|---|---|
| 2010 | – | 1,032 | 1,925 | 396 | 704 | 155 | 545 | 2,093 | 1,418 |
| 2011 | – | 1,104 | 1,758 | 461 | 745 | 164 | 543 | 1,971 | 1,338 |
| 2012 | – | 1,184 | 887 | 268 | 829 | 141 | 514 | 2,048 | 1,177 |
| 2013 | – | 956 | 1,085 | 265 | 915 | 169 | 688 | 2,632 | 1,041 |
| 2014 | – | 838 | 1,112 | 275 | 563 | 147 | 628 | 2,252 | 1,109 |
| 2015 | – | 788 | 926 | 264 | 436 | 168 | 603 | 2,077 | 975 |
| 2016 | – | 856 | 861 | 254 | 370 | 176 | 633 | 1,967 | 745 |
| 2017 | 1,071 | 867 | 667 | 262 | 299 | 216 | 708 | 1,706 | 705 |
| 2018 | 844 | 1,056 | 688 | 240 | 323 | 305 | 758 | 1,468 | 916 |
| 2019 | 599 | 2,793 | 489 | 251 | 401 | 388 | 1,094 | 1,123 | 1,247 |
| 2020 | 566 | 3,529 | 588 | 229 | 352 | 747 | 926 | 1,073 | 1,302 |
| 2021 | 542 | 2,685 | 753 | 227 | 339 | 1,327 | 588 | 880 | 1,226 |

The **Herfindahl–Hirschman index** (HHI) is the most frequently used indicator to measure concentration. Assuming *n* participants to be competing in a market, and the concentration factors (for our purposes, net asset values) under consideration being $0 < x_1, x_2, \dots, x_i$, and $T = \sum_{i=1}^{n} x_i$, where $i \in \mathbb{Z}^+$, $n \in \mathbb{Z}^+$, then $HHI_t = \sum_{i=1}^{n} \left(\frac{x_i}{T}\right)^2$.

In practice, the indicator is usually calculated as a percentage value, but HHI is expressed as the sum of the squares of the percentage (without using a per cent sign):

$HHI = \sum_{i=1}^{n} \left(\frac{x_i}{T} \cdot 100\right)^2$, hence $HHI = HHI_t \times 10{,}000$.

A HHI value below 1,000 is low, a value between 1,000 and 1,800 is medium, and a value above 1,800 indicates a high concentration.

The evolution of concentration by type of fund in the period 2010–2021 is shown in Table 10. The Herfindahl index of venture capital and private equity funds in 2017 was 1,071, which indicates a medium level of concentration for this type of fund. In the following years, as the number of funds increased, the value decreased steadily to drop below 1,000, which corresponds to a low level of concentration. In the case of money market funds, the HHI initially showed moderate concentration, then increased to 2,685 by 2021, which is the highest level of concentration reached by any of the fund types within the period under review. Bond and real estate funds changed from strong concentration to low during the period, with the Herfindahl–Hirschman index decreasing from 1,925 to 753 for the former group and from 2,093 to 880 for the latter. The concentration of equity, mixed and derivative funds remained low throughout the period. In the case of guaranteed funds, the HHI in 2012 was only 141, but by 2021 a medium level of concentration can be observed for this type of fund.

**Table 11**
**Stock data and distribution of the net asset value of investment funds by currency at end of the year, in HUF billions and percentages, 2010–2021**

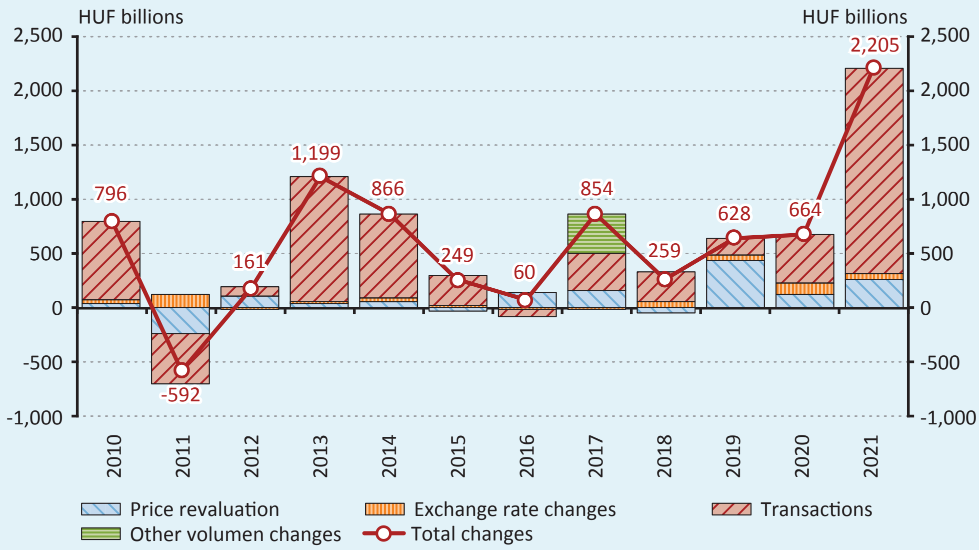
| Year | HUF | EUR | Other | Total | HUF | EUR | Other | Total |
|---|---|---|---|---|---|---|---|---|
| 2010 | 3,474 | 285 | 136 | 3,895 | 89% | 7% | 4% | 100% |
| 2011 | 2,944 | 257 | 103 | 3,303 | 89% | 8% | 3% | 100% |
| 2012 | 2,987 | 341 | 136 | 3,464 | 86% | 10% | 4% | 100% |
| 2013 | 4,116 | 364 | 183 | 4,663 | 88% | 8% | 4% | 100% |
| 2014 | 4,950 | 387 | 192 | 5,529 | 90% | 7% | 3% | 100% |
| 2015 | 5,073 | 453 | 252 | 5,778 | 88% | 8% | 4% | 100% |
| 2016 | 5,054 | 531 | 253 | 5,839 | 87% | 9% | 4% | 100% |
| 2017 | 5,746 | 598 | 349 | 6,693 | 86% | 9% | 5% | 100% |
| 2018 | 5,949 | 646 | 356 | 6,952 | 86% | 9% | 5% | 100% |
| 2019 | 6,351 | 803 | 426 | 7,580 | 84% | 11% | 6% | 100% |
| 2020 | 6,747 | 1,014 | 484 | 8,245 | 82% | 12% | 6% | 100% |
| 2021 | 8,677 | 1,302 | 470 | 10,449 | 83% | 12% | 4% | 100% |

In the period under review, the majority (82–90 per cent) of the aggregate net asset value of investment funds was denominated in HUF, and a small part in EUR and other currencies (Table 11). At the end of 2010, the market value of investment fund shares issued in HUF was HUF 3,474 billion, which accounted for 89 per cent of the total net asset value. At the end of 2021, with HUF 8,677 billion, this ratio represented only 83 per cent. The part of the net asset value denominated in EUR initially accounted for 7 per cent with a stock of HUF 285 billion, and by the end of the period under review it reached 12 per cent and increased to HUF 1,302 billion. The ratio of the value of shares issued in other currencies varied between 4 per cent and 6 per cent throughout the period, and their stock increased from HUF 136 billion to HUF 470 billion.

## Changes in outstanding amounts of the net asset value of investment funds

The majority of the data collected on investment funds is a time series of stock data, reflecting to the outstanding amounts (balance sheet data) of the reporting entities' data at the end of a period concerned. **In statistical terms, changes in outstanding amounts during a period are caused by transactions, which are accompanied by other stock changes**. In case of financial and non-financial instruments, transactions occur by mutual agreement between different market participants concerning the creation, termination, transfer (sale, purchase or non-reciprocal transfer) of assets. Transactions also include fees paid by the shareholders to the investment fund and income (dividends) paid by the investment fund. In addition to transactions, changes in outstanding amounts during a period are comprised of revaluations (price revaluations and exchange rate changes) and other changes in volume (reclassifications, extraordinary events).

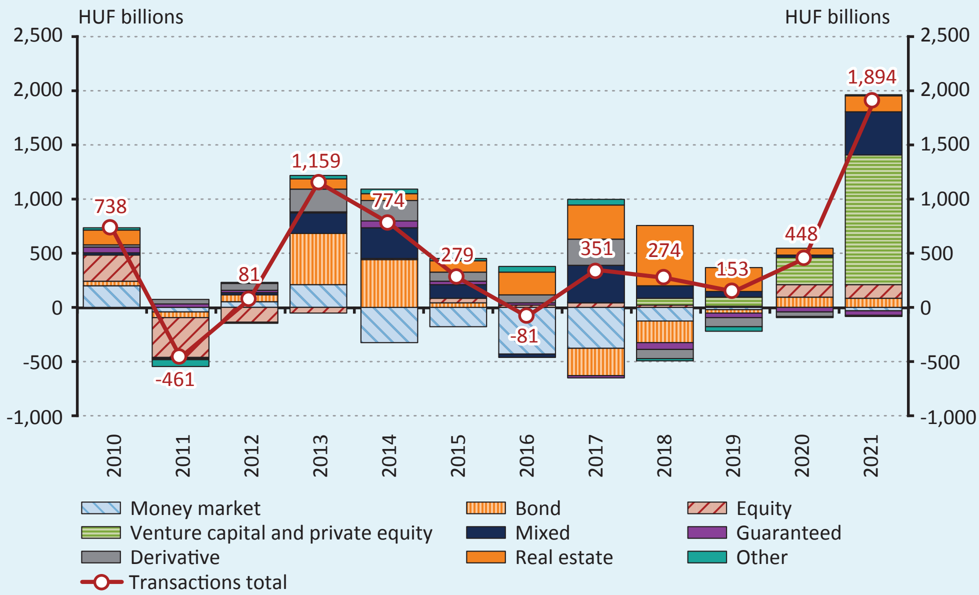
**Chart 15**
**Annual changes in the outstanding amount of investment fund shares issued by resident investment funds by component, 2010–2021**




Examining the annual change in the net asset value by components, it can be established that in most years in the period between 2010 and 2021, transactions were the major part of the changes in the stock data, followed by the effect of price revaluations, and then a minority of exchange rate changes. Reclassification appeared in the aggregated data only in 2017 with the value of HUF 371 billion, integrating the net asset value of venture capital and private equity funds into the data collection of investment fund statistics. Venture capital and private equity funds were included in the financial account statistics from the end of 2013 with HUF 83 billion worth of total assets, causing a reclassification of this amount in the time series. In other years, changes in the type of the funds can cause reclassifications in statistics. The most significant of these are the transformation of money market funds into other funds (HUF 185 billion in 2012, HUF 45 billion in 2013, HUF 295 billion in 2019, HUF 24 billion in 2020) and the transformation of other investment funds into money market funds (HUF 11 billion in 2010, HUF 8 billion in 2011, HUF 44 billion in 2013, HUF 111 billion in 2014, HUF 73 billion in 2015, HUF 66 billion in 2016, HUF 82 billion in 2017, and HUF 15 billion in 2019).

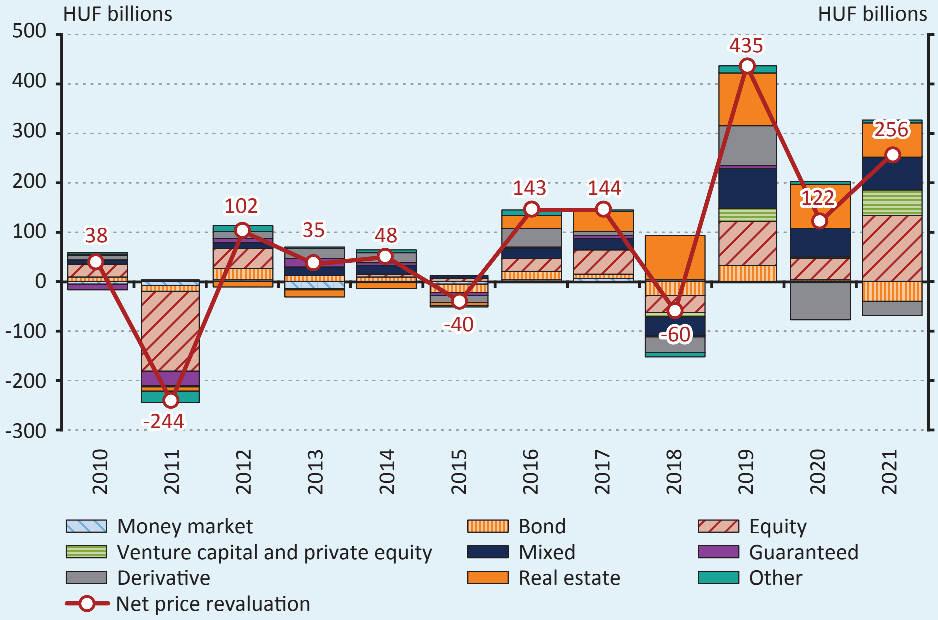
In terms of capital investments in investment funds, the largest annual positive net transaction was observed in 2021 with HUF 1,894 billion, in addition net capital inflows also exceeding HUF 1,000 billion in 2013. The decrease in net asset value due to transactions showed a significant value in 2011, with HUF –461 billion. The highest positive value of annual price revaluations was HUF 435 billion, which occurred in 2019. In that year, the rate of the price revaluations substantially exceeded the transactional value. In line with transactions, the largest decrease in the net asset value of investment funds due to price revaluations occurred in 2011, with HUF –244 billion. Unlike the former, exchange rate changes increased the net asset value to the greatest extent in 2011, by HUF 113 billion.

**Chart 16**
**Annual transactions in investment fund shares issued by investment funds by type of fund, 2010–2021**



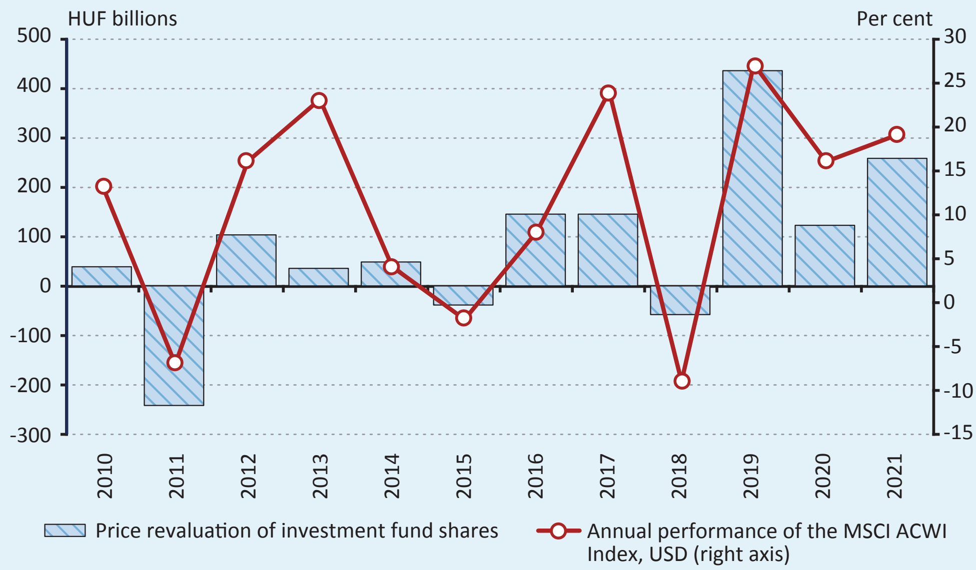

A variety of economic events and changes in the market environment may have different impacts on different types of funds. By examining the **annual net transactions (annual net capital investments) in investment fund shares issued** by investment funds, it is possible to identify the funds receiving capital inflows and those experiencing capital outflows over a specific period in time. 2010 was the only year in the period between 2010 and 2021 in which capital inflows occurred in all types of funds, amounting to HUF 738 billion in total. In 2011, when the result of capital flows reached the greatest negative value, guaranteed and derivative funds were able to increase their net assets by a total of HUF 79 billion. Overall, a significant positive transaction can be observed in 2013 (HUF 1,213 billion), which was reduced only by the HUF 53 billion capital outflow from equity funds. In 2014 and 2015, all types of funds, except money market funds, experienced capital inflows. Apart from 2011, the net capital flow in investment funds was also negative in 2016, which is mainly due to the HUF 430 billion capital outflow from money market funds. In that year, the net transaction was also negative for mixed funds, but its amount was only HUF 27 billion. 2017 had the largest negative annual transaction of the period with HUF 644 billion, which was generated by money market, bond and guaranteed funds. However, this was offset by the HUF 994 billion positive transactions of the other types of funds, therefore the combined result of capital flows was HUF 351 billion. In 2018, there was a capital outflow in five types of funds and an inflow in only four; however, in the case of real estate funds, it was so significant (HUF 556 billion) that net capital flow at the sector level was tilted in the positive direction. In the following year, 2019, the data was similar, with the difference that the volume of transactions were smaller. In 2020, there were negative transactions for four fund types, with the total value of HUF 95 billion, and the positive transactions were HUF 543 billion. In the last year, 2021, investment funds achieved the highest net capital inflow of HUF 1,894 billion, of which 63 per cent, HUF 1,193 billion, is due to venture capital and private equity funds. The transaction for mixed funds also peaked in that year at HUF 404 billion. Capital outflows were observed in money market, guaranteed and derivative funds with a total of HUF 67 billion.

**Chart 17**
**Annual price revaluation in investment fund shares issued by investment funds by type of fund, 2010–2021**




**Annual price revaluation in investment fund shares** issued by investment funds may also be examined by type of fund. Net asset value was negatively affected by price revaluation in three years: 2011, 2015 and 2018. In 2011, in addition to the positive price revaluation of HUF 1 billion in mixed funds, negative price revaluation were observed for the other types of funds in the total value of HUF 246 billion. 67 per cent of the net price revaluation is associated with equity funds. In 2015, the positive price revaluation in equity and mixed funds increased the outstanding amounts by HUF 11 billion, but this proved to be insufficient to offset the negative price revaluation of HUF 51 billion. In 2018, real estate funds achieved a significant increase of HUF 91 billion due to price revaluation, coupled with a slight positive price revaluation in money market funds. By contrast, the other fund types produced a negative price revaluation of HUF 152 billion. In the years 2016, 2017 and 2019, the price revaluation did not reduce the net asset value of investment funds. The greatest positive price revaluation occurred in 2019, amounting to HUF 435 billion. Out of this change, 25 per cent (HUF 109 billion) can be attributed to real estate funds, 21 per cent to equity funds and 18 per cent to mixed and derivative funds each. In the years not mentioned previously, typically one to three fund types experienced negative price revaluation, and in terms of frequency of occurrence, money market and real estate funds were the most affected. It is also important to point out that the greatest price revaluation within the period under review was achieved by equity funds in 2021, amounting to HUF 133 billion and representing 52 per cent of the annual net price revaluation.

**Chart 18**
**Annual price revaluation in investment fund shares issued by investment funds and annual performance of the MSCI ACWI Index, 2010–2021**




Annual price revaluation in investment fund shares issued by resident investment funds can be compared to the annual performance of the MSCI ACWI Index (Chart 18). MSCI ACWI (All Country World Index) is an equity index created to monitor global equity market changes. The index includes nearly 3,000 companies from 23 developed and 25 emerging markets. A correlation can be observed between the price revaluation and the Index. As mentioned above, the price revaluation of the net asset value of investment funds showed negative value for the same three years as MSCI ACWI.

## Shareholder structure of investment fund shares

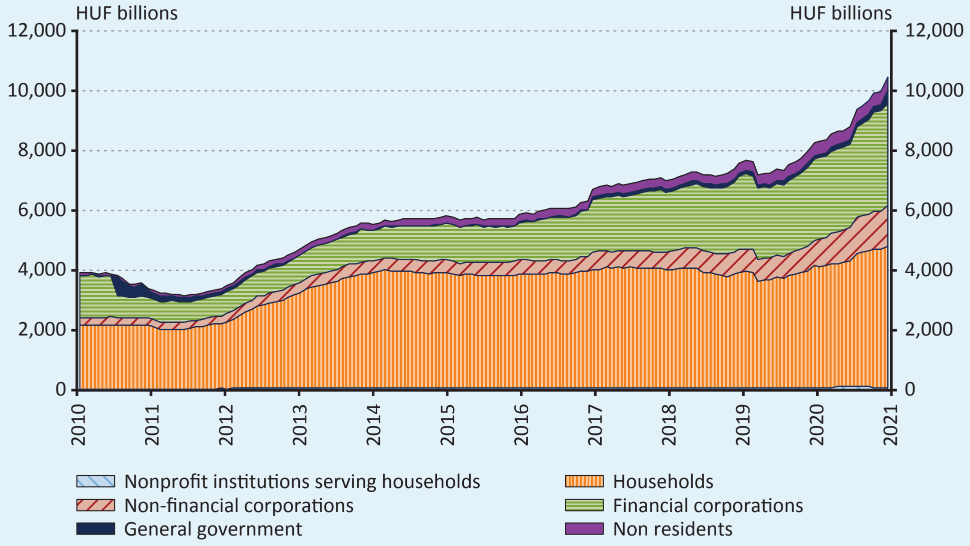
An investment fund is a collective investment form in which investors can acquire equity holding by purchasing investment fund shares. An understanding of the shareholder structure of investment fund shares in the investment funds resident in Hungary provides an insight into the exposure of the market participants to securities of specific types. As the outstanding amounts of assets under management in investment funds has increased considerably in recent years, it is appropriate to examine the transformations that have taken place in the ownership and investment structure.

Hungarian publications present **holders of investment fund shares** in a single sectoral breakdown defined in the national accounts and other related financial statistics, distinguishing between the sectors of resident non-financial corporations (S.11), financial corporations (S.12), general government (S.13), households (S.14) and non-profit institutions serving households (S.15) and the rest of the world (S.2)[4]. In some cases, the sector of non-profit institutions serving households is merged with the sector of households in order to provide a simpler presentation; in other cases, the sector of financial corporations and the general government are divided into further subsectors in a publication. The financial corporations sector comprises monetary institutions (central bank, credit institutions, money market funds) and non-monetary financial institutions (other investment funds, other financial intermediaries, financial auxiliaries, captive financial institutions, insurance corporations, pension funds). In Hungary the general government (public sector) is composed of subsectors of the central government, local governments and social security funds. In some publications, foreign counterparties are also represented in a sectoral breakdown similarly to resident ones, and sometimes the relevant foreign and resident sectors are combined together in pairs to form sectors. (This latter solution is indicated by the absence of non-residents from the list of sectors.) The statistical data collection system is capable of monitoring direct (primary) holders of the shares (as securities) representing the net asset value of resident investment funds, but not indirect or ultimate holders

[4] See Annex 2 to MNB Decree No 54/2021 (XI. 23.): General provisions concerning the supply of information, Sector definitions

or investors. This is applies in particular to foreign holders and investors, whereby any further sectoral breakdown of the non-resident 'sector' leads to inaccurate data.

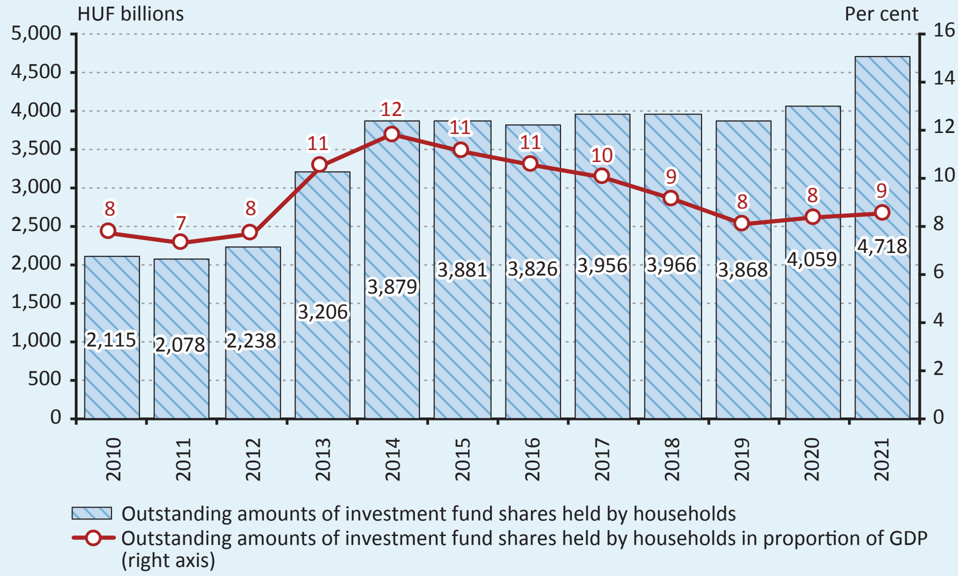
**Chart 19**
**Net asset value of investment funds by shareholder sector, 2010–2021**




The aggregate net asset value of resident investment funds increased more than threefold in the period 2010–2021, and the composition of the net asset value by shareholder sector also changed significantly during this period (Chart 19). In the period under review, households held the largest proportion of shares, and their weight of ownership varied between 45 per cent and 70 per cent. Throughout the period, the second largest sector of ownership was that of financial corporations. Together, these two shareholder sectors of the greatest weights held more than 90 per cent of the total net asset value at the beginning and 78 per cent at the end of the period.

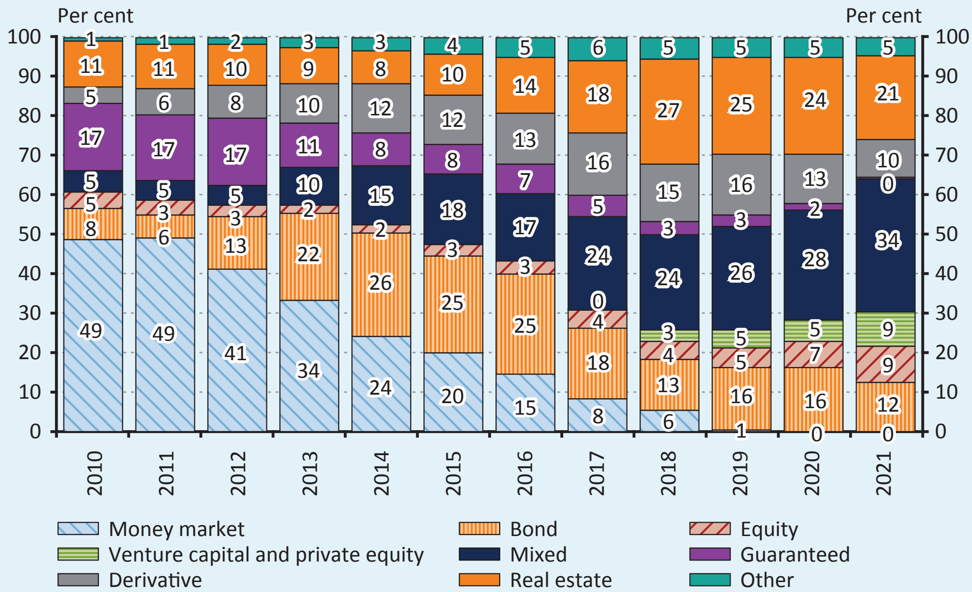
At the end of 2010, households held HUF 2,116 billion of the net asset value of HUF 3,895 billion of resident investment funds, while financial corporations held HUF 1,455 billion. In contrast, non-financial corporations held a total stock data of HUF 220 billion, and the general government a total of HUF 10 billion. However, from 2011 Q2 onwards, the stock data of investment fund shares in the general government sector increased sharply (to HUF 645 billion in June 2011), accompanied by a fall in the stock data of financial corporations. As a result of the takeover of the private pension fund assets by the state, some HUF 3,000 billion of financial assets were transferred from the pension fund subsector to the central government, as part of which HUF 645 billion worth of resident investment fund shares was added to the sector. (In the case of pension funds, the decrease in stock data was greater because, in order to facilitate settlement, some of the securities were exchanged for cash before the transfer of the assets.) The general government gradually sold the securities received, as a result of which the stock data of investment fund shares held by it fell to approximately HUF 50 billion by the end of 2013. In recent years, however, owed to investments in venture capital and private equity funds, the stock data of investment fund shares held by the general government has recovered to reach HUF 425 billion by the end of the period under review. In the case of financial corporations, following a sudden decline stock data recovered steadily, reaching HUF 3,428 billion by the end of 2021. Stock data held by households and non-financial corporations also grew steadily, and by the end of 2021 the stock data of households increased to HUF 4,718 billion and that of non-financial corporations to HUF 1,334 billion. The net asset value attributable to non-resident shareholders and non-profit institutions serving households increased slightly during the period under review; their holdings increased from HUF 77 billion to HUF 475 billion for the former and from HUF 18 billion to HUF 68 billion for the latter.

**Chart 20**
**Outstanding amounts of investment fund shares held by households at end of the year, 2010–2021**



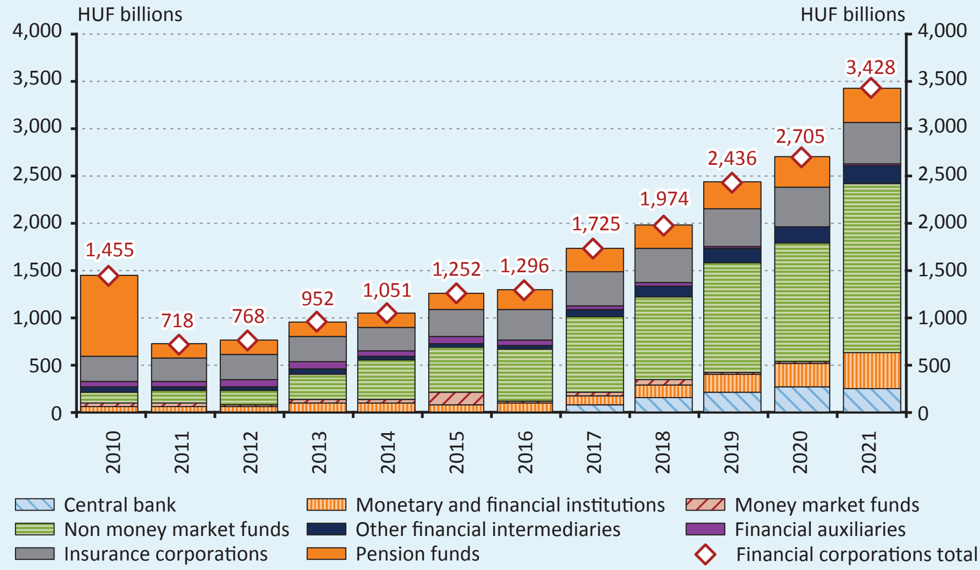

In case of investment fund shares, a significant decrease in stock data was observed in 2011, which mainly affected financial corporations among the shareholder sectors. Savings of households and other investor sectors hold in investment fund shares have not changed significantly, which is related to increasing investment fund returns and declining interests on deposits. At the time, households mostly invested their savings in bond funds. A significant decrease in investment fund shares was also observed in March 2020, when households withdrew their savings from the funds because of the uncertainty caused by the pandemic, but their stock data subsequently recovered to reach HUF 4,059 billion by the end of 2020.

**Chart 21**
**Distribution of resident investment fund shares held by households by type of fund**



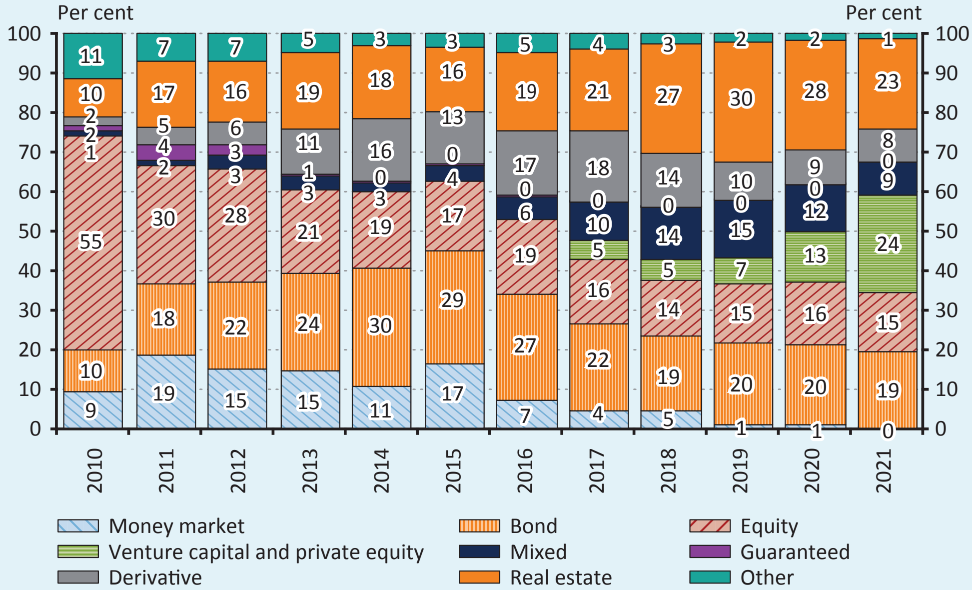
Examining the distribution of resident investment fund shares held by the household sector by issuer fund type, it can be observed that the weight of each fund type has changed fundamentally over the last 11 years (Chart 21). At the end of 2010, money market funds accounted for 49 per cent of the HUF 2,116 billion stock data of investment fund shares held by households, with the guaranteed funds ranking second at 17 per cent. A continuous decrease can be observed in the following years for both types of fund, and by the end of the period under review their weight decreased to approximately 0 per cent (to HUF 11 and 23 billion, respectively). The weight of mixed funds increased the most, followed by the stock data of real estate funds. The net asset value of mixed funds increased from 5 per cent to 34 per cent within households' stock data of investment fund shares, and the weight of real estate funds increased from 11 per cent to 21 per cent (HUF 995 billion). Investment fund shares of bond funds varied between 8 per cent and 26 per cent, and for households their net asset value peaked at HUF 1,015 billion in 2014. In 2017, households had HUF 7 billion worth of investments in venture capital and private equity funds, which increased to HUF 407 billion by the end of 2021, representing 9 per cent of household's total stock data of investment fund shares. During the period under review, among household investments holdings in equity funds and derivative funds remained broadly unchanged.

**Chart 22**
**Outstanding amounts of investment fund shares held by financial corporations by subsector at end of the year, 2010–2021**




At the end of 2010, **outstanding amounts of investment fund shares held by financial corporations** amounted to HUF 1,455 billion. By the end of the following year, this value was halved, subsequently recovering progressively to HUF 3,428 billion. Looking at the individual shareholder subsectors, it can be observed that at the end of 2010 the highest proportion of investment fund shares was held by pension funds (HUF 866 billion, 59.5 per cent of the stock data) and insurers (HUF 256 billion). In the following year, the stock data of investment fund shares held by financial corporations decreased to HUF 718 billion, of which the value of units held by pension funds fell to HUF 148 billion. Liabilities to non-monetary market funds, i.e. the value of investment fund shares held by investment funds, rose from an initial HUF 118 billion to HUF 1,772 billion by the end of 2021.

**Chart 23**
**Distribution of investment fund shares held by financial corporations by type of fund**

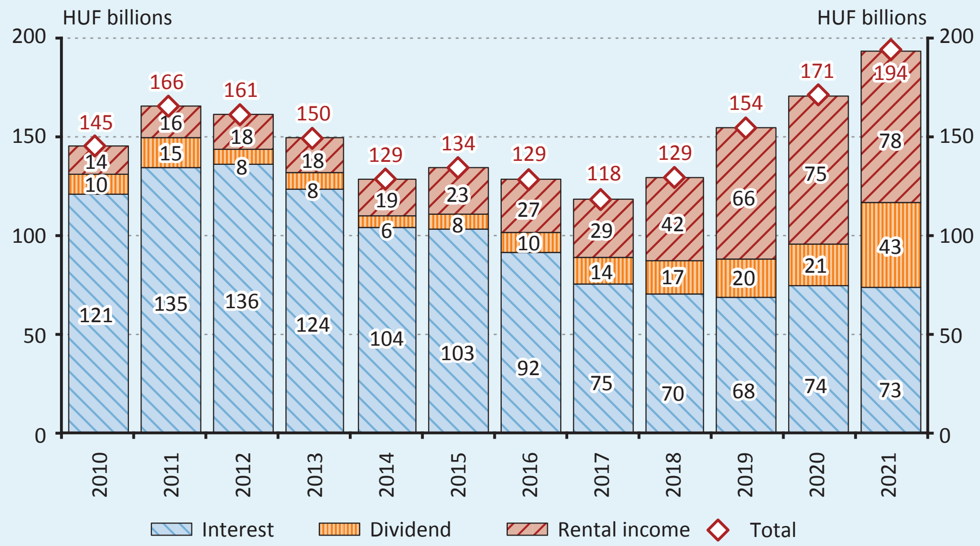



Examining the distribution of investment fund shares held by financial corporations by type of fund, it can be observed that, while in the case of households the highest proportion of the stock data in 2010 was held in money market funds (49 per cent), in the case of financial corporations it was held in equity funds (55 per cent, HUF 774 billion). The weight of equity funds decreased steadily, falling to 15 per cent by the end of the period under review. Between 2010 and 2021, the stock data of bond funds and real estate funds continuously increased, and their weight varied between 10 per cent and 30 per cent. From 2013, bond funds occupied the largest share in the investment fund portfolio of financial corporations, with real estate funds taking over from 2017, only to concede the lead to venture capital and private equity funds by 2021.

## 3.3 PROPERTY INCOME RECEIVED BY INVESTMENT FUNDS

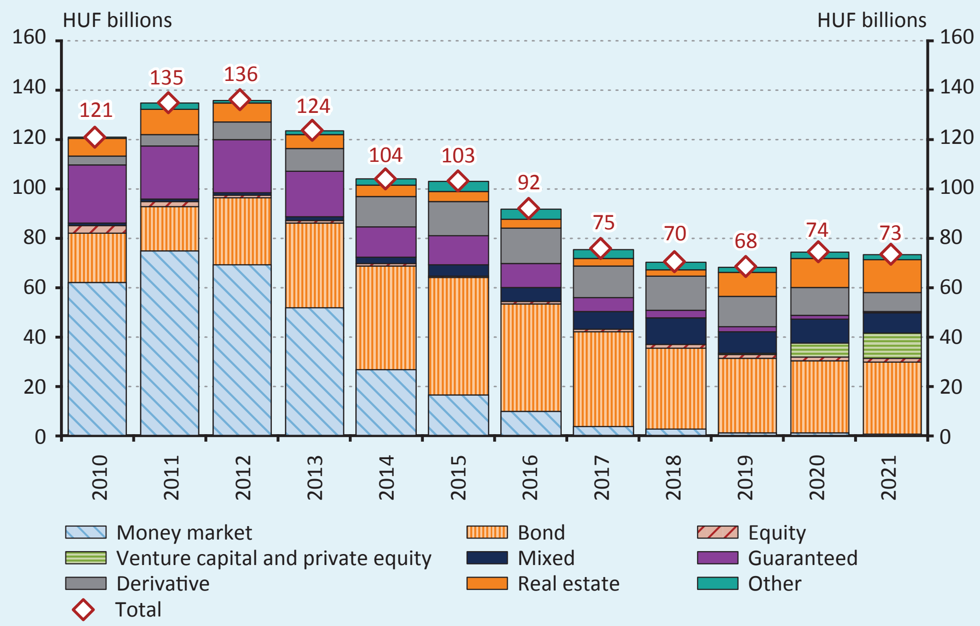
The holders of investment fund shares invest in funds with the aim of achieving a positive real return on the investment portfolio of choice. Investment funds may earn a return on the price change of the instruments in their portfolio and on the income of those instruments. Property income may arise from interest income, dividend income, other property income, and rent. Interest income is typically provided to shareholders in funds by debt securities and bank deposits. Dividend income may be derived from equity securities and other equity holdings. Rent is paid to holders of shares in real estate funds on a variety of real estate items, mostly industrial facilities and office buildings. Investment fund shares therefore generate a mixed income. In the case of investment funds investing in other funds, the return on the shares held that qualifies as mixed income is stated as interest income in statistical reporting.

**Chart 24**
**Annual statistical property income received by investment funds, 2010–2021**



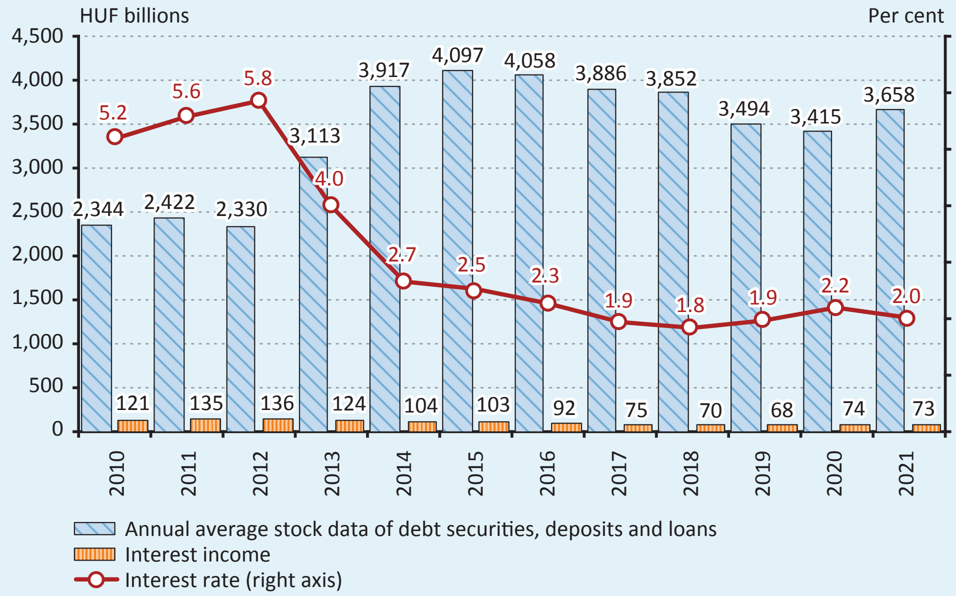

Between 2010 and 2021, the amount of property income received by investment funds amounted to an annual average of HUF 148 billion. The annual amount of property income peaked in 2021 at HUF 194 billion, and reached its lowest level at HUF 118 billion in 2017. Interest income accounted for 80 per cent of income between 2010 and 2014, after which the proportion of interest income declined steadily to 38 per cent in 2021. Between 2012 and 2017, the value of interest income fell from HUF 136 billion to HUF 75 billion, and stagnated afterwards. The phenomenon is closely related to the change in the interest rate environment, which allowed interest-bearing securities and deposits to generate less income for investment funds, while the proportion of these instruments in the portfolios also decreased. From 2014 onwards, the income from rent gradually increased and reached 40 per cent (HUF 78 billion) in 2021, owed to the growing prominence of real estate funds. The amount of dividend income also showed a significant increase in the period under review, generating revenues of HUF 10 billion in 2010 and HUF 43 billion in 2021.

**Chart 25**
**Evolution of the annual interest income of investment funds by type of fund, 2010–2021**



Between 2010 and 2015, 70–80 per cent of interest income was related to money market, bond and guaranteed funds. Such funds have historically undertaken significant exposure to interest-bearing securities. However, as a result of the drastic decline in the number of money market funds and guaranteed funds after 2015, the interest income of investment funds fell significantly, from a peak of HUF 136 billion in 2012 to a low of HUF 68 billion in 2019. Subsequently, the income stopped falling and remained level at HUF 70 billion until 2021. After 2019, despite major changes in the structure of interest income by type of fund, bond funds retained their prominent weight at 40 per cent.

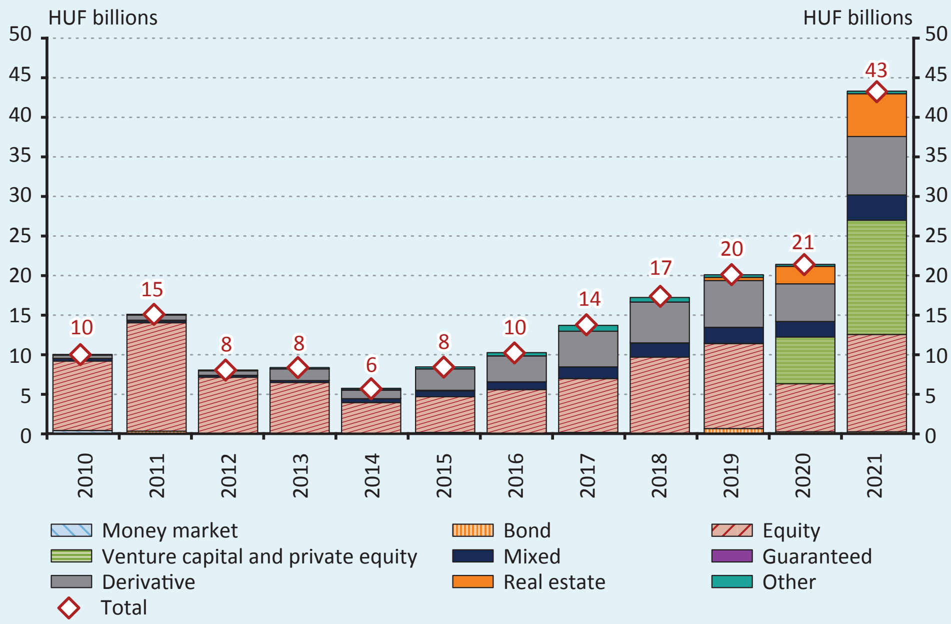
**Chart 26**
**Annual average stock data of debt securities, deposits and loans granted by investment funds and annual interest income received, 2010–2021**




*Note: The interest rate is the value of interest income over debt securities.*

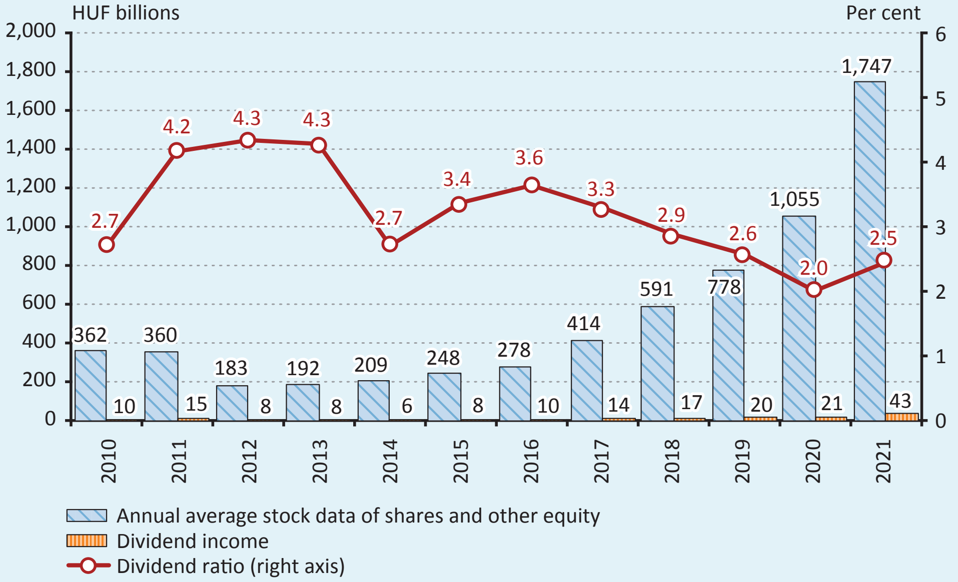
Examining the average annual stock of debt securities, deposits and loans granted by investment funds, it can be seen that a development opposite to the trend observed in interest income has taken place. The stock of securities increased significantly by nearly 80 per cent between 2012 and 2014, while interest income decreased by nearly 25 per cent over the same period. During that period, the average stock of debt securities rose from HUF 831 billion to HUF 1,761 billion, and that of deposits rose from HUF 1,678 billion to HUF 2,335 billion. Despite the fact that the interest rate environment did not support the holding of interest-bearing securities, buyers of shares invested their capital in these funds. After 2015, when the central bank policy rate decreased to approximate the historical minimum, the stock of interest-bearing securities also began to decrease, and the rate of interest income stagnated at around 2 per cent. In 2021, within the assets of investment funds, the average stock of debt securities, deposits and loans granted amounted to HUF 3,658 billion, including HUF 208 billion in loans granted, of which 80 per cent were linked to venture capital and private equity funds and 20 per cent to real estate funds. In the same year, interest income was HUF 73 billion, resulting in a 2 per cent interest rate on interest-bearing instruments.

**Chart 27**
**Development of the annual dividend income received by investment funds by type of fund, 2010–2021**




Between 2010 and 2014, 80–90 per cent of the dividend income of investment funds was linked to equity funds, but after 2014 the share of equity funds in total dividend income declined steadily to 28 per cent in 2021. Despite the decrease, the dividend income of the equity funds remained relatively stable over the period under review, at an annual average of HUF 8 billion. Between 2010 and 2014, the dividend income of all investment funds amounted to an annual average of HUF 9 billion, with income from dividends increasing continuously after 2014, to reach HUF 43 billion in 2021. In growth, a major role was occupied by derivative funds from 2015, then by venture capital and private equity funds from 2020.

**Chart 28**
**Annual average stock data of shares and other equity of investment funds, with the amount and share of annual dividend income received, 2010–2021**

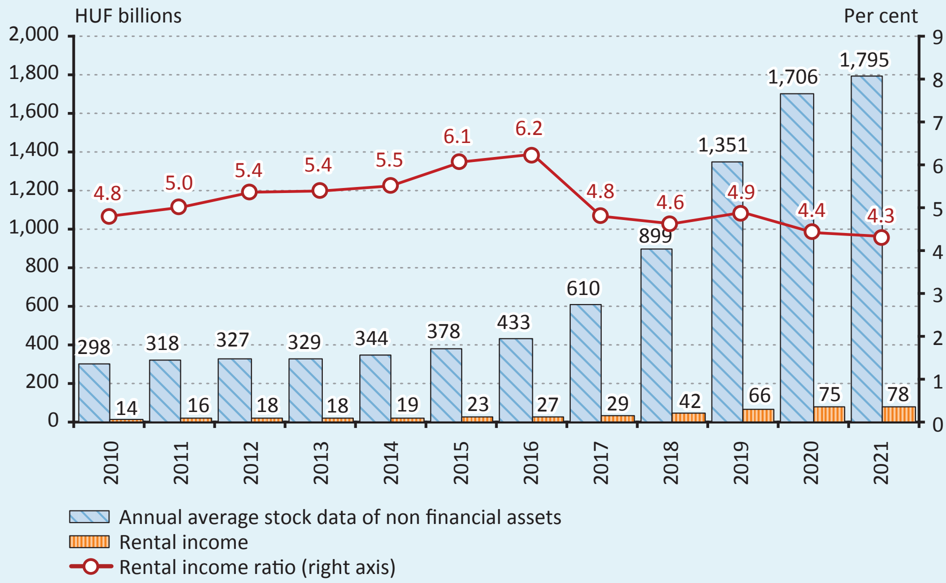



*Note: Including venture capital and private equity funds from 2017 and other equity from 2019; prior to that the stock data is exclusively composed of shares. The dividend rate is the value of dividend income over shares and other equity.*

Investment funds may receive dividend income on shares and other equity in their portfolios. Dividends are not distributed automatically every year, and are heavily dependent on the profitability of the companies owned and their dividend strategies; this may explain why, despite the significant increase in the stock data of shares and other equity, the dividend income of the funds did not increase at the same rate each year.

Between 2010 and 2016, the stock data of shares varied in the range of HUF 180–360 billion, and the dividend income in the range of HUF 8–15 billion. From 2017 onwards, a significant increase is seen in both stock and dividend income, marking the introduction of data on venture capital and private equity funds in investment fund statistics. A major increase can be seen again in 2019, when the statement was expanded to incorporate data on other equity, which accounted for 23 per cent of the stock data in 2019, and 35 per cent in 2021. (Prior to that, only the stock data of shares could be identified separately, while other equity were shown among other assets in the balance sheet of investment funds.) In 2021, the stock data of shares and other equity reached HUF 1,747 billion, and dividend income HUF 43 billion.

**Chart 29**
**Annual average stock data of non financial assets of investment funds and annual rental income, 2010–2021**




*Note: The rental income ratio is the value of the rent over non-financial assets.*

Investment funds may derive an income from rents received on their non-financial assets in addition to dividend and interest income. Non-financial assets owned by funds are typically items of real estate, and in accordance with legal requirements, only real estate funds are licensed to hold real estate. Between 2010 and 2014, the stock data of non-financial assets owned by real estate funds varied in the range of HUF 300–350 billion, and since 2015 the stock data has increased sharply to approximately HUF 1,800 billion by the end of 2021. Some of the non-financial assets held in portfolios are income-generating real estate, typically office buildings and commercial real estate. On these assets, the fund collects a rental fee, which is a predictable source of income for the fund. Between 2010 and 2014, the annual rent received by investment funds on non-financial assets varied in the range of HUF 14–19 billion. From 2015 onwards, as a result of the increase in the stock, rental income also increased dynamically, reaching HUF 78 billion by 2021.

## 3.4 BREAKDOWN OF ASSETS AND LIABILITIES OF INVESTMENT FUNDS BY INSTRUMENT

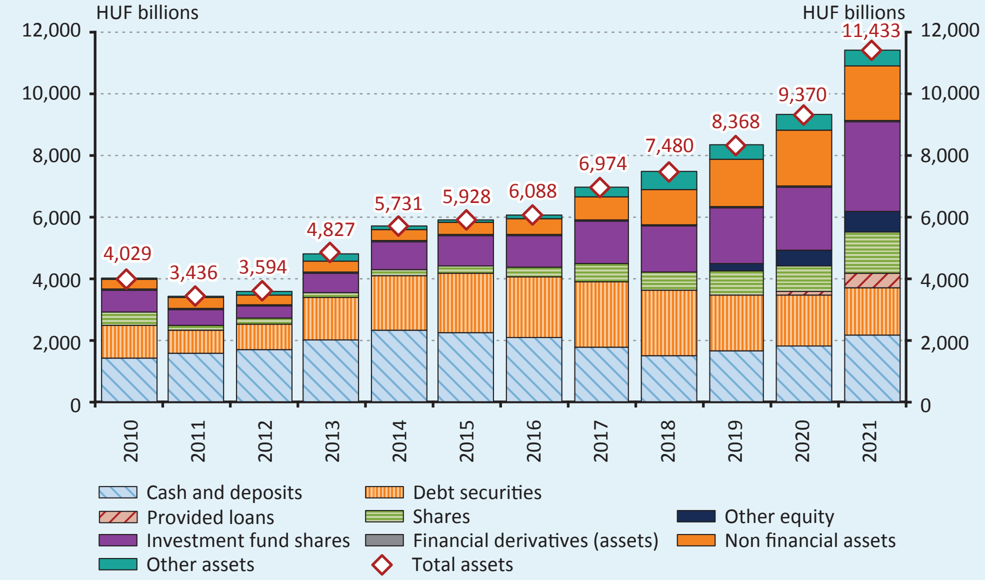
*This chapter presents the assets and liabilities of domestic (resident) investment funds broken down by assets type and fund type. These detailed data are only available in the statistical balance sheets reported by investment funds and therefore the asset categories used there are shown below. A brief description of the asset classes helps to understand the different classification and valuation approaches used in the various statistics.*

In the statistical balance sheet reported to the MNB, the **assets of investment funds** include cash and deposits, debt securities, loans granted, shares, other equity, investment fund shares, financial derivatives, non-financial assets and other assets. The value of other equity (participations and holdings other than shares, stock of other equity) can be separated in the reporting from the beginning of 2019 and the value of the loans granted from the beginning of 2020, before which these instruments were included in other assets. Debt securities are shown in assets at gross market value including accrued interest, while loans and deposits without accrued interest, which, in such cases, is shown under other assets. This presentation approach is in line with the international and Hungarian methodological standards for monetary statistics but differs from the data disclosures of national accounts (financial accounts) and the balance of payments, where accrued interest is always added to the value of the interest-bearing instrument. Other assets and other liabilities may include items of a technical nature which may not appear in other statistics.

The net asset value, i.e. the value of the investment fund shares issued (the equity of the fund), the loans, financial derivatives and other liabilities are shown on the **liability side of the investment fund balance sheet**. Other liabilities may include accrued interest, accrued operating expenses, or technical items such as temporary liabilities related to the issue, redemption or distribution of securities.

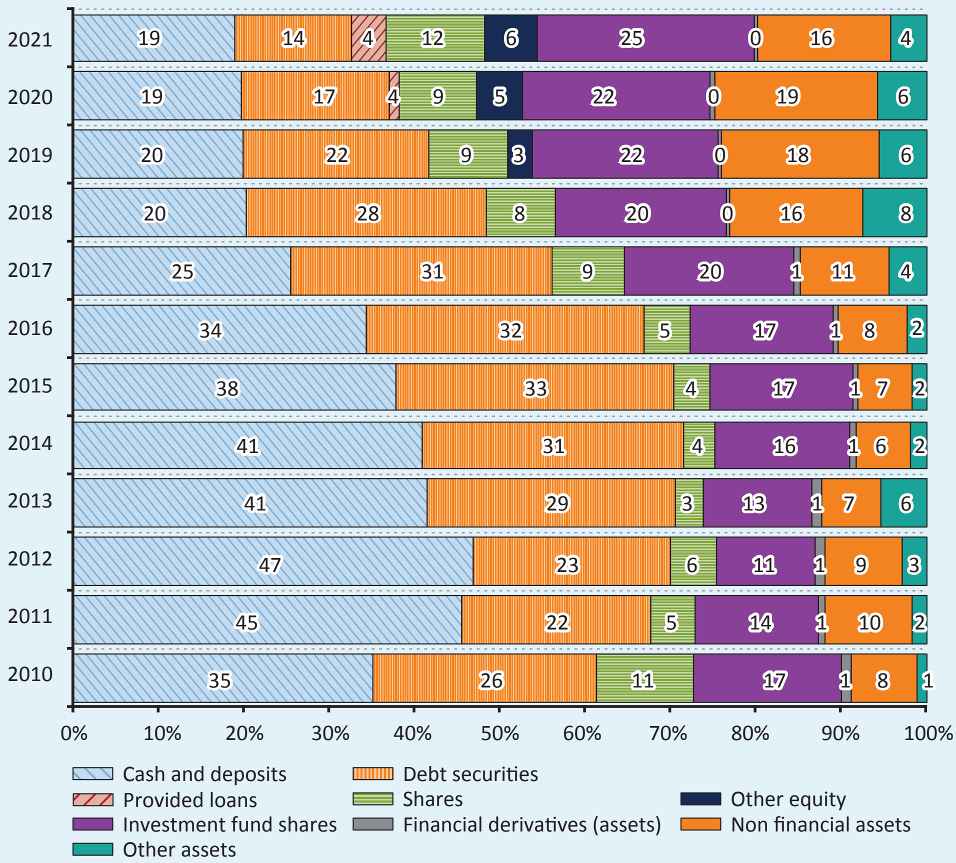
An examination of the asset- and liability-side instruments included in the statistical balance sheet of investment funds reveals the assets in which the different funds invest their available resources and the sources from which they raise capital.

**Chart 30**
**Assets of investment funds by instrument at end of the year, 2010–2021**



The value of investment fund assets rose from HUF 4,029 billion at the end of 2010 to HUF 11,443 billion at the end of 2021. Assets stagnated between 2010–2012 and started to grow dynamically from 2013 onwards. From 2011 onwards, the balance sheet total of investment funds increased by an average 11 per cent per year. The allocation of assets between instruments also changed significantly over the period. From 2013 onwards, in line with the increase in the stock data of assets under management and as a result of the change in the interest rate environment, the proportion of higher-risk instruments within the portfolios started to increase.

**Chart 31**
**Assets of investment funds by instrument, 2010–2021**

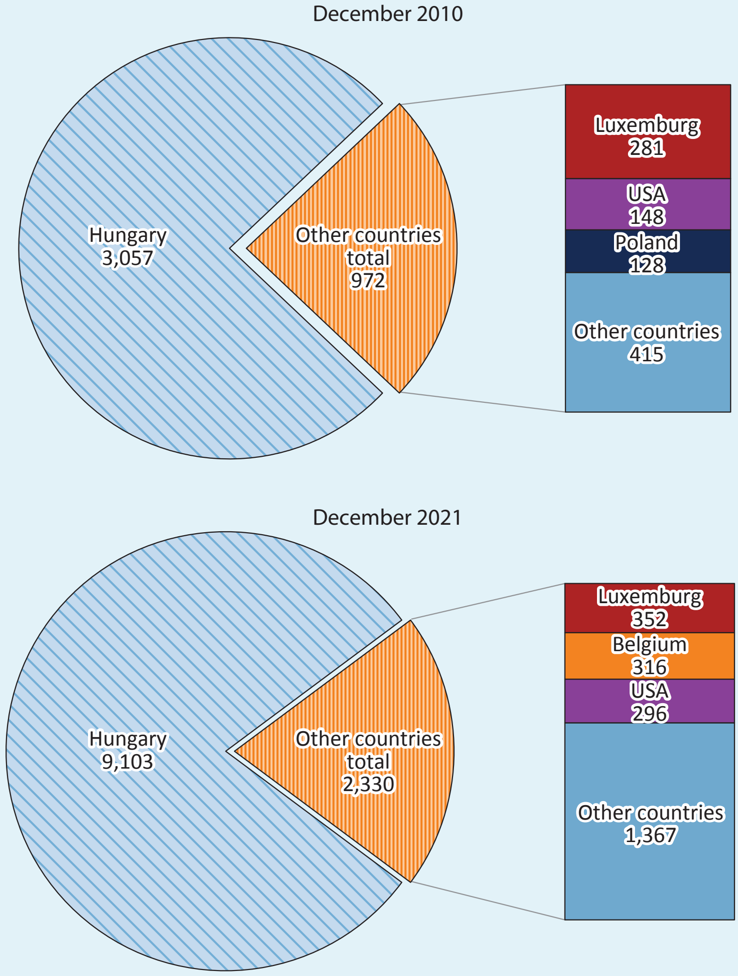



While at the end of 2010, 61 per cent of all assets were invested in lower-risk deposit-type products and debt securities, the share of these assets fallen to 33 per cent by the end of 2021. The share of the two types of instruments was highest in 2014 at 72 per cent, and then declined year by year (reaching HUF 3,713 billion at the end of 2021). The lower risk instruments were gradually replaced by higher risk instruments with higher return potential. The holdings of equity instruments, investment fund shares, non-financial assets and other assets increased significantly, from 37 per cent at the end of 2010 to 67 per cent at the end of 2021. The highest rate of growth was seen in the stock of investment fund shares held, which from HUF 698 billion at the end of 2010 to HUF 2,914 billion at the end of the period under review, representing the highest proportion (25 per cent) of all asset-side instruments. (At the end of 2021, mixed funds held HUF 1,618 billion worth of investment fund shares in other funds, which accounted for 76 per cent of their HUF 2,115 billion assets.) On the other hand, financial derivatives have always had the smallest weight, of around 1 per cent.

**Table 12**
**Breakdown of the asset-side instruments of investment funds by type of fund, at the end of 2021**

| | Money market | | Bond | | Equity | | Venture capital and private equity | | Mixed | | Guaranteed | | Derivative | | Real estate | | Other | | Total assets | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HUF billions | per cent | HUF billions | per cent | HUF billions | per cent | HUF billions | per cent | HUF billions | per cent | HUF billions | per cent | HUF billions | per cent | HUF billions | per cent | HUF billions | per cent | HUF billions | per cent |
| Cash and deposits | 13 | 43 | 745 | 45 | 118 | 12 | 336 | 16 | 145 | 7 | 12 | 50 | 201 | 23 | 554 | 17 | 26 | 9 | 2,151 | 19 |
| Debt securities | 17 | 57 | 766 | 47 | 23 | 2 | 52 | 3 | 254 | 12 | 10 | 43 | 255 | 29 | 160 | 5 | 24 | 8 | 1562 | 14 |
| Provided loans | – | – | 0 | 0 | 0 | 0 | 430 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 1 | 0 | 0 | 473 | 4 |
| Shares | – | – | 5 | 0 | 497 | 49 | 527 | 25 | 75 | 4 | 0 | 0 | 196 | 22 | 1 | 0 | 17 | 6 | 1,318 | 12 |
| Other equity | – | – | 0 | 0 | 0 | 0 | 441 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 257 | 8 | 0 | 0 | 698 | 6 |
| Investment fund shares | 0 | 0 | 62 | 4 | 365 | 36 | 227 | 11 | 1618 | 76 | 0 | 0 | 164 | 19 | 250 | 7 | 228 | 75 | 2,914 | 25 |
| Financial derivatives (assets) | 0 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 7 | 0 | 2 | 7 | 18 | 2 | 2 | 0 | 7 | 2 | 41 | 0 |
| Non-financial assets | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 1791 | 54 | – | – | 1,791 | 16 |
| Other assets | 0 | 0 | 63 | 4 | 12 | 1 | 57 | 3 | 16 | 1 | 0 | 1 | 53 | 6 | 283 | 8 | 1 | 0 | 485 | 4 |
| Total assets | 30 | 100 | 1644 | 100 | 1017 | 100 | 2071 | 100 | 2115 | 100 | 24 | 100 | 889 | 100 | 3340 | 100 | 303 | 100 | 11,433 | 100 |

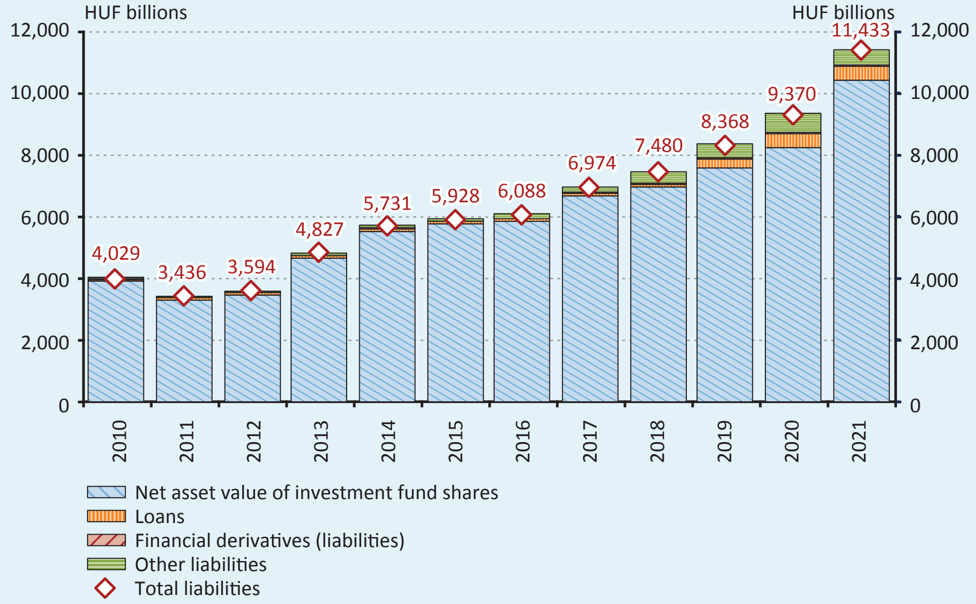
**Chart 32**
**Distribution of investment fund assets by issuing country at the end of 2010 and 2021 (HUF billions)**




At the end of 2010, the value of **assets issued by Hungarian residents and held by investment funds** represented 76 per cent of the total assets. The largest part of this HUF 3,057 billion domestic assets was held in debt securities (HUF 1,006 billion), with HUF 147 billion held in domestic investment fund shares and HUF 129 billion held in equities. In addition, the value of deposits with resident credit institutions was outstanding at HUF 1,405 billion. By the end of 2021, the value of domestic assets held by investment funds increased to HUF 9,103 billion, representing 80 per cent of their total assets. The value of resident deposits increased to HUF 2,105 billion, and the value of debt securities held remained almost unchanged (HUF 1,003 billion). The value of domestically issued investment fund shares and equities increased significantly, at the end of the year stocks was HUF 1,790 billion (of which HUF 1,001 billion was held by mixed funds) and HUF 727 billion (of which HUF 527 billion was held by venture capital and private equity funds).

At the end of 2010, the value of **foreign assets held by investment funds** amounted to HUF 972 billion, of which the value of investment fund shares amounted to HUF 551 billion and that of equities to HUF 330 billion. By the end of 2021, the value of foreign assets increased to HUF 2,330 billion, including HUF 1,124 billion in investment fund shares, HUF 591 billion in equities and HUF 559 billion in debt securities. In terms of the country breakdown of foreign assets, the value of assets issued in Luxembourg remained the highest throughout the period. At the end of 2010, the claims of investment funds on Luxembourg entities amounted to HUF 281 billion (of which HUF 263 billion were in investment fund shares), and at the end of 2021 to HUF 352 billion (including HUF 319 billion in investment fund shares). Beside Luxembourg, other prominent investment destinations were the United States (HUF 148 billion at the end of 2010 and HUF 296 billion at the end of 2021), Poland (HUF 128 billion at the end of 2010) and Belgium (HUF 316 billion at the end of 2021).

**Chart 33**
**Liabilities of investment funds by instrument at end of the year, 2010–2021**




The liability side of investment funds' balance sheet is less fragmented than the asset side and comprises a total of four instruments. Liabilities are dominated by net asset value, i.e. the value of the investment fund shares issued, with a ratio above 90 per cent throughout the period under review, except in 2020. All other instruments play secondary roles in financing the investment funds and are only shown in the balance sheet to the extent necessary. The value of loans rose from HUF 75 billion at the end of 2010 to HUF 425 billion at the end of 2021, and the value of other liabilities rose from HUF 52 billion to HUF 498 billion. The stock of financial derivatives on the liability side barely changed between 2010 and 2021, declining from HUF 6 billion to HUF 3 billion in 2013, then recovering to HUF 61 billion by the end of 2021. Their proportion remained insignificant throughout the period under review, varying below 1 per cent.

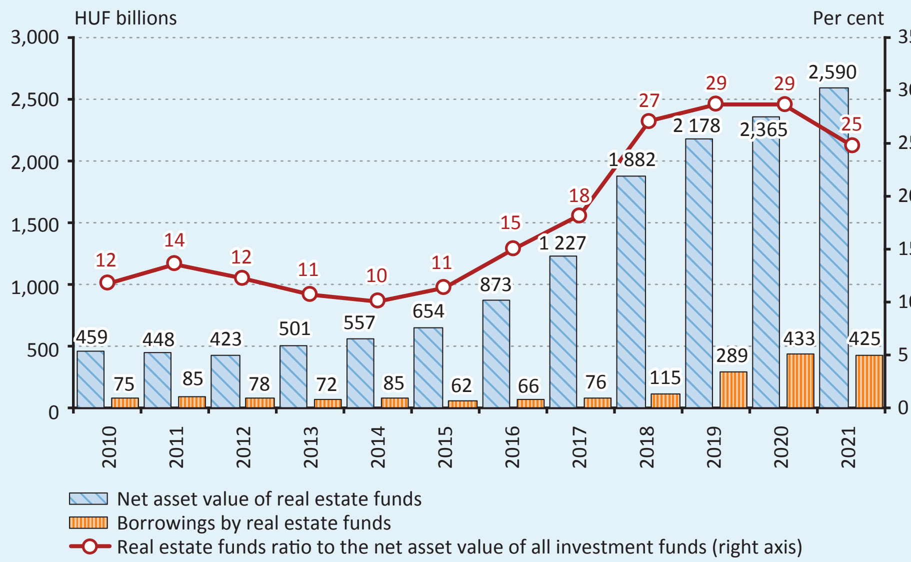
## 3.5 INVESTMENT FUND DATA BY TYPE OF FUND

*This section highlights details on the most specific types of funds: real estate funds as well as venture capital and private equity funds. Real estate funds have always been one of the main types of investment funds apart from securities funds. Venture capital funds appeared later in the 2000s as one of the subtypes of securities funds. The most recent type of fund is the private equity fund, which has shown spectacular development in terms of both the number and the assets of the funds since 2015. That is why it is appropriate to present their data and characteristics separately.*

### Real estate investment funds

Real estate funds are special investment funds and are different from securities funds in a number of ways. The most significant difference is that real estate funds invest a significant part of their capital in non-financial assets. These non-financial assets may include office buildings, residential property, industrial parks, and commercial property. The funds are required to invest the rest of their capital as provided for in Government Decree No 78/2014. (III. 14.) on the investment and borrowing policies of collective investment trusts. The Regulation specifies that at the time of acquisition, no property in the portfolio of a public open-end real estate fund may exceed 20 per cent of the assets of the real estate fund, or 30 per cent for a public closed-end real estate fund, and that the total value of real estate under construction may not exceed 75 per cent of the assets of the fund. According to the Regulation, a public real estate fund may not invest in property rights related to real estate. An exception to this is granted where such rights are necessary for the normal use and utilisation of the real estate owned by the real estate fund. Furthermore, a public real estate fund may only enter into derivative contracts for hedging (risk mitigation) purposes. The real estate fund is licensed to invest up to 20 per cent of its assets in another investment fund which pursues, either directly or indirectly, an investment policy of making investments in the real estate market, or an investment policy of investing exclusively in liquid assets. The Regulation also requires that the public open-end real estate fund hold at least 15 per cent of its assets in liquid assets.

**Chart 34**
**Net asset value of real estate funds, ratio to the net asset value of all investment funds, and borrowings by real estate funds, 2010–2021**



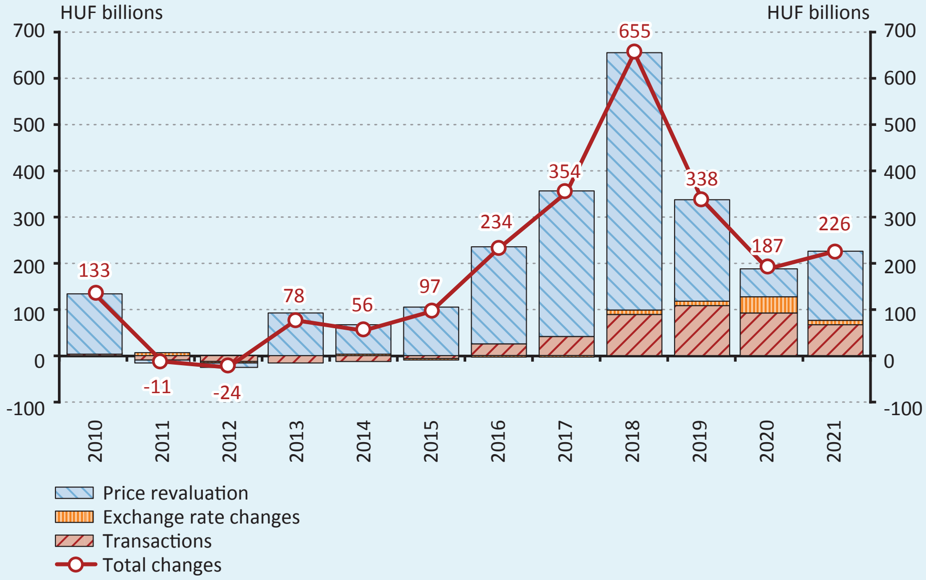

In recent years, real estate funds have seen unprecedented volumes of capital inflow, which has increased their prominence within the market of investment funds. Between 2010 and 2016, the value of shares issued by real estate funds varied between 10 per cent and 15 per cent of the shares issued by all investment funds. However, from 2016, the volume of assets under management in real estate funds started to grow significantly, in line with the dynamic development of the Hungarian real estate market; the stock amounted to nearly HUF 1,900 billion in 2018, representing a ratio of 27 per cent of the total shares issued. From 2018, the volume of assets under management in real estate funds was the largest among all fund types, exceeding HUF 2,500 billion by 2021, which represented a 25 per cent share of the net assets of all investment funds. The other significant liability-side instrument of real estate funds is debt, which is most characteristic of this type of fund. Until 2017, the volume of borrowings remained below HUF 100 billion, but started to increase from 2018. At the end of 2021, the balance sheets of 70 real estate funds included credit debt in total amount of HUF 425 billion, and 60 percent of that stock was linked to 5 real estate development funds.

**Table 13**
**Number and net asset value of real estate funds by publicity and liquidity at end of the year, 2010–2021**

| Year | Public | | | | | | | Private | | | | | | | Real estate funds (total) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Open-end | Closed-end | Open-end | Closed-end | Total | Total | Average assets | Open-end | Closed-end | Open-end | Closed-end | Total | Total | Average assets | | |
| | Pcs | Pcs | HUF billions | HUF billions | Pcs | HUF billions | HUF billions | Pcs | Pcs | HUF billions | HUF billions | Pcs | HUF billions | HUF billions | Pcs | HUF billions |
| 2010 | 14 | 5 | 325 | 80 | 19 | 404 | 21 | 12 | 1 | 45 | 10 | 13 | 54 | 4 | 32 | 459 |
| 2011 | 14 | 4 | 312 | 82 | 18 | 395 | 22 | 13 | 1 | 43 | 10 | 14 | 53 | 4 | 32 | 448 |
| 2012 | 15 | 2 | 317 | 45 | 17 | 362 | 21 | 15 | 1 | 52 | 9 | 16 | 61 | 4 | 33 | 423 |
| 2013 | 16 | 1 | 427 | 8 | 17 | 435 | 26 | 16 | 1 | 59 | 7 | 17 | 66 | 4 | 34 | 501 |
| 2014 | 16 | 0 | 476 | 0 | 16 | 476 | 30 | 18 | 1 | 78 | 4 | 19 | 81 | 4 | 35 | 557 |
| 2015 | 16 | 0 | 558 | 0 | 16 | 558 | 35 | 17 | 2 | 91 | 5 | 19 | 96 | 5 | 35 | 654 |
| 2016 | 15 | 0 | 743 | 0 | 15 | 743 | 50 | 29 | 9 | 115 | 14 | 38 | 129 | 3 | 53 | 873 |
| 2017 | 11 | 0 | 1,012 | 0 | 11 | 1,012 | 92 | 39 | 19 | 142 | 73 | 58 | 215 | 4 | 69 | 1,227 |
| 2018 | 12 | 0 | 1,443 | 0 | 12 | 1,443 | 120 | 64 | 29 | 278 | 161 | 93 | 439 | 5 | 105 | 1,882 |
| 2019 | 10 | 0 | 1,422 | 0 | 10 | 1,422 | 142 | 90 | 38 | 522 | 233 | 128 | 756 | 6 | 138 | 2,178 |
| 2020 | 12 | 2 | 1,528 | 5 | 14 | 1,533 | 110 | 102 | 52 | 597 | 234 | 154 | 832 | 5 | 168 | 2,365 |
| 2021 | 14 | 2 | 1,540 | 12 | 16 | 1,552 | 97 | 125 | 53 | 780 | 258 | 178 | 1038 | 6 | 194 | 2,590 |

**Classified by publicity and liquidity**, real estate funds are present in each category. Until 2015, the number of private funds moved together with that of public funds, but after 2015, the former started to increase faster, while the latter tended to decrease. The ratio of the number of private real estate funds to public ones was 2.5 in 2016, and 11 in 2021. The phenomenon can be explained by intensifying activity in the real estate market, which was also reflected in the data of the commercial real estate market from 2016. The vast majority of the 178 private funds in circulation at the end of 2021 were real estate development funds, which are typically set up for a single real estate development project. At a certain point in time, fund managers with such a profile may have managed tens of other real estate funds with lower net asset values, as opposed to open-end real estate funds, which tend to build large portfolios of up to several hundred billion forints. The stock figures show that the assets in the real estate funds are concentrated in the few open-end funds; while in 2021 the 178 closed-end real estate funds had a combined stock of issued shares worth HUF 1,038 billion, the 16 open-end funds had a combined net asset value of HUF 1,552 billion.

**Chart 35**
**Annual stock data changes in the net asset value of real estate funds by component, 2010–2021**




Disaggregating the effects of transactions, market price movements and exchange rate movements from the **annual change in the net asset value (i.e. the value of shares issued) of real estate funds**, the period between 2010 and 2021 can be divided into two different stages of development. Between 2011 and 2015, there was a negative price change on investment fund shares (and accordingly on assets) every year, with a total depreciation of HUF 52 billion over five years. During this period, the large price increases typical of the later period had not yet begun in the real estate market. The transaction data show a modest but overall positive capital inflow, with HUF 372 billion flowing into real estate funds between 2010 and 2015. The significant wave of capital inflows started in 2016, and was coupled with appreciation in the real estate market. Between 2016 and 2021, more than HUF 1,500 billion of capital flowed into real estate funds, and at the same time they appreciated by HUF 425 billion due to the price movements of their shares. During this period, the impact of exchange rate movements on the shares (and assets) of real estate funds was also significant, and increased the net asset value of real estate funds by HUF 60 billion. It is typical for the portfolio of a real estate fund to record a significant volume of assets in euro, and a part of their income is also generated in euro (rentals are set in euro). Between 2010 and 2021, an average 48 per cent of real estate fund assets were denominated in euro and another approximately 2 per cent in other foreign currencies.

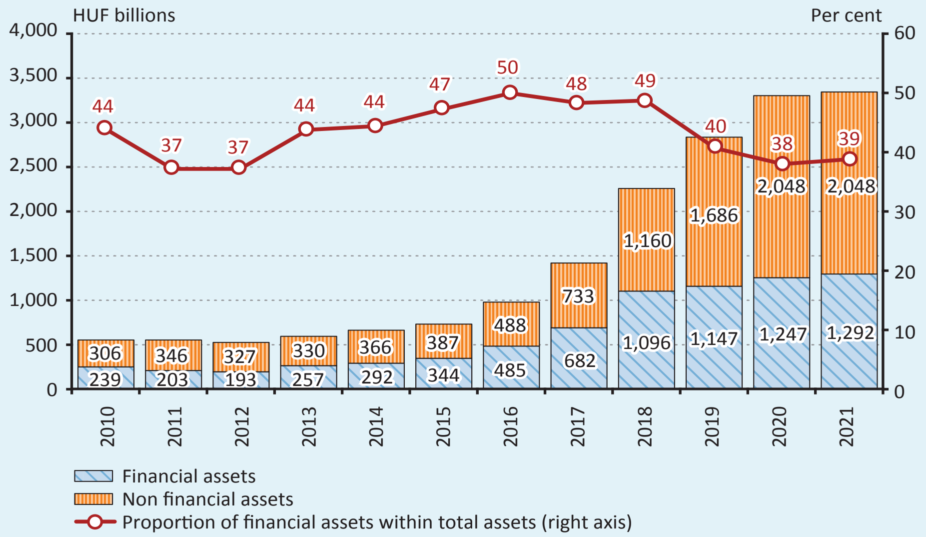
**Table 14**
**Developments in the assets of real estate funds by component, 2010–2021 (HUF billions)**

| Year | Cash and deposits | Debt securities | Provided loans | Shares | Other equity | Investment fund shares | Financial derivatives (assets) | Non financial assets | Other assets | Total assets |
|---|---|---|---|---|---|---|---|---|---|---|
| 2010 | 108 | 71 | – | 0 | – | 50 | 0 | 306 | 9 | 545 |
| 2011 | 124 | 19 | – | 0 | – | 46 | 0 | 346 | 14 | 549 |
| 2012 | 113 | 29 | – | 0 | – | 42 | 0 | 327 | 9 | 520 |
| 2013 | 173 | 23 | – | 0 | – | 39 | 2 | 330 | 20 | 587 |
| 2014 | 230 | 12 | – | 0 | – | 42 | 0 | 366 | 8 | 658 |
| 2015 | 225 | 54 | – | 0 | – | 42 | 0 | 387 | 23 | 731 |
| 2016 | 341 | 79 | – | 0 | – | 30 | 3 | 488 | 32 | 973 |
| 2017 | 333 | 209 | – | 0 | – | 47 | 2 | 733 | 89 | 1,414 |
| 2018 | 382 | 330 | – | 5 | – | 76 | 6 | 1,160 | 296 | 2,255 |
| 2019 | 542 | 159 | – | 4 | 145 | 130 | 3 | 1,541 | 310 | 2,834 |
| 2020 | 617 | 102 | 32 | 1 | 245 | 134 | 3 | 1,803 | 359 | 3,296 |
| 2021 | 554 | 160 | 43 | 1 | 257 | 250 | 2 | 1,791 | 283 | 3,340 |

Non-financial assets had the highest weight among the assets in the portfolio of real estate funds, and at the end of 2021, 54 per cent of all assets were real estate, in the value of HUF 1,791 billion. Asset-side instruments also include a less liquid type of asset, other equity, which are mainly shares in real estate distribution and real estate operating subsidiaries. These data have been included separately in investment fund statistics since 2019. By the end of 2021, the stock data of corporate business shares held by real estate funds reached HUF 257 billion, representing 8 per cent of total assets. (From 2022 onwards, a major part of the subsidiaries will be consolidated in real estate funds for inclusion in the statistical balance sheet.)

One of the main characteristics of non-financial assets and other equity holdings is that they are illiquid, which requires real estate fund managers to pay particular attention to ensuring that their portfolios are sufficiently diversified and that there is always an adequate level of liquidity buffer available. On the one hand, the funds should be prepared to have a sufficient level of liquidity to pay redeemed shares even in the event of a major wave of capital outflows. On the other hand, real estate investment and development are slow processes, and the project may take several years from start to finish, which also requires a sufficient level of liquidity to cover the costs incurred over time. To ensure liquidity, real estate funds hold a high proportion of bank deposits, debt securities and investment fund shares in their portfolios. At the end of 2021, 29 per cent of their total assets were held in these liquid instruments.

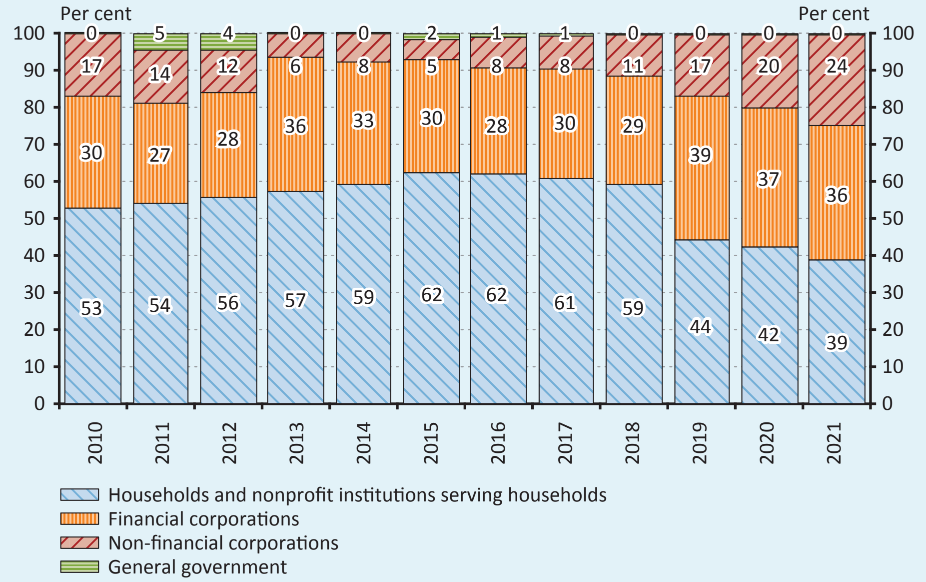
**Chart 36**
**Financial and non-financial assets of real estate funds and the proportion of financial assets within total assets at end of the year, 2010–2021**




The share of financial assets in the portfolio of real estate funds varied in the range of 37–50 per cent between 2010 and 2021 and reached the highest rate of 50 per cent in the period under review in 2016. Subsequently, the ratio decreased steadily to 39 per cent by the end of 2021.

One of the most important features of real estate funds is that they can receive rental fees on some of their real estate investments. This source of revenue represents a continuous cash flow for the funds, and also adds to the value of investment fund shares. This also applies in a negative economic environment. This was the case in 2012–2013, when rental income was able to offset the negative price movements of non-financial assets in the portfolios of real estate funds. Here, too, a major positive shift was seen from 2016 onwards, whereby both the price movements of non-financial assets and the value of the rental fees collected on them started to increase. In 2021, rental income amounted to HUF 78 billion, and the price movements of non-financial assets to HUF 80 billion, together amounting to 6 per cent of the annual average stock of issued investment fund shares.

**Chart 37**
**Changes in the shareholder structure of real estate funds by main shareholder sector at end of the year, 2010–2021**




*Note: Sectoral breakdown by aggregating data for the corresponding resident and non-resident sectors.*

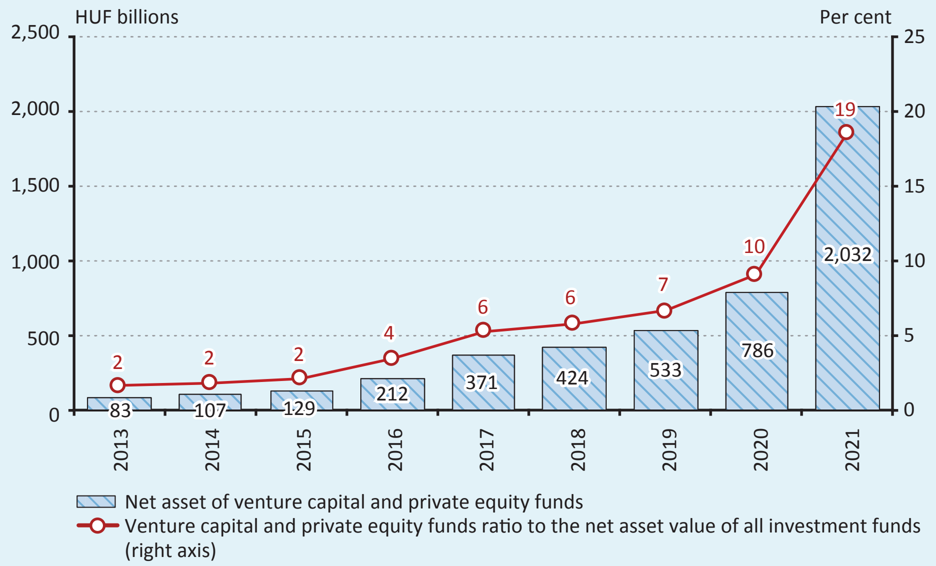
Throughout the period under review, the largest shareholders of real estate funds were households and non-profit institutions serving households; their share amounted to 53 per cent at the end of 2010 and 39 per cent at the end of 2021 (their holdings increased from HUF 242 billion to more than HUF 1,000 billion in value). The second largest sector investing in real estate funds is the sector of foreign and resident financial corporations, with a share varying between 27 per cent and 39 per cent in the period under review (the value of the investment fund shares held by financial corporations increased from HUF 139 billion to HUF 937 billion). In terms of proportions, the greatest increase was seen in the stock data of investment fund shares issued by real estate funds and owned by non-financial corporations, from HUF 78 billion at the end of 2010 to HUF 631 billion at the end of 2021.

## Venture capital and private equity funds

Based on their investment objectives, venture capital funds and private equity funds can adequately be distinguished both from each other and from other forms of investment. While venture capital funds finance start-ups facing high growth, private equity funds effect changes in the ownership structure of mature companies. Venture capital funds typically acquire (for the most part, minority) interest in companies that seek to enter the market with new, innovative products and have high growth potential. By contrast, private equity funds acquire majority interest in mature, prosperous companies, which enables them to restructure the companies they acquire. Both forms of equity investment are characterised by fund managers using their expertise and experience to achieve the objective of making partly or fully owned companies profitable and thereby earning returns on their investments.

Venture capital funds and private equity funds also differ as regards the way in which their investments are financed. In Hungary, venture capital funds tend to take a mixed approach to raising the capital required for their launch, where usually 30 per cent of the initial capital of the fund is covered by private sources and 70 per cent by state funds. By contrast, private equity funds use some combination of equity and debt to supply capital for their funds.

**Chart 38**
**Net asset value of venture capital and private equity funds, and ratio to the net asset value of all investment funds at end of the year, 2010–2021**




For a long time, venture capital and private equity funds had a marginal weight within the net asset value of all resident investment funds. Their ratio was 2 per cent between 2013 and 2015, reaching 4 per cent in 2016. Subsequently, a higher increase in the net asset value of the funds can be observed, which remained until the end of the period under review. From 2017, the composition of the funds by subtype also showed a significant change.

**Table 15**
**Number of venture capital and private equity funds and outstanding amounts of investment fund shares issued**

| Year | Venture capital funds | | Private equity funds | | Venture capital and private equity funds (total) | |
|---|---|---|---|---|---|---|
| | Number | HUF billions | Number | HUF billions | Number | HUF billions |
| 2013 | 34 | 83 | 0 | 0 | 34 | 83 |
| 2014 | 42 | 107 | 0 | 0 | 42 | 107 |
| 2015 | 42 | 126 | 1 | 3 | 43 | 129 |
| 2016 | 41 | 140 | 5 | 72 | 46 | 212 |
| 2017 | 39 | 181 | 10 | 191 | 49 | 371 |
| 2018 | 49 | 197 | 18 | 226 | 67 | 424 |
| 2019 | 53 | 231 | 31 | 302 | 84 | 533 |
| 2020 | 56 | 263 | 57 | 523 | 113 | 786 |
| 2021 | 62 | 405 | 89 | 1,627 | 151 | 2032 |

Until 2017, the venture capital funds clearly dominated the fund type. Although the first private equity funds already emerged in 2015–2016, they were not significant players in terms of net asset value. However, by the end of 2017, the volume of assets under management in private equity funds already exceeded that of venture capital funds. Regarding the number of funds, 2020 marked a turning point with 57 private equity funds and 56 venture capital funds operating in Hungary. The trend continued in 2021, when the amount of assets under management in private equity funds exceeded HUF 1,600 billion, ranking it as the third largest type of investment fund in terms of net asset value after real estate and mixed funds.

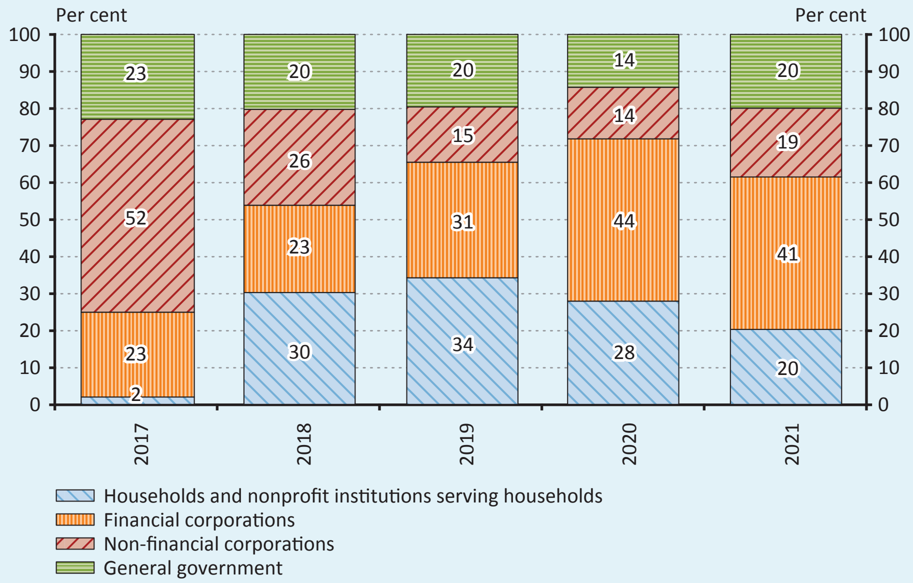
Even when considered on its own, the assets under management in venture capital funds increased significantly between 2013 and 2021, largely due to various public and EU programmes, which also sought to support business development in Hungary through venture capital investments. The amount of assets under management in venture capital funds rose from HUF 83 billion at the end of 2013 to more than HUF 400 billion at the end of 2021.

**Table 16**
**Developments in the assets of venture capital funds and private equity funds by component, 2017–2021 (HUF billions)**

| Year | Cash and deposits | Debt securities | Provided loans | Shares | Other equity | Investment fund shares | Other assets | Total assets |
|---|---|---|---|---|---|---|---|---|
| 2017 | 92 | 0 | – | 155 | – | 0 | 132 | 379 |
| 2018 | 95 | 0 | – | 174 | – | 0 | 159 | 428 |
| 2019 | 113 | 56 | – | 203 | 88 | 4 | 88 | 552 |
| 2020 | 129 | 74 | 71 | 216 | 260 | 11 | 61 | 822 |
| 2021 | 336 | 52 | 430 | 527 | 441 | 227 | 57 | 2,071 |

Among the assets of venture capital and private equity funds, the capital of companies wholly or partly owned by the funds is represented by shares and other equity. These assets showed dynamic development during the period under review: the value of the shares held increased from HUF 155 billion at the end of 2017 to HUF 527 billion at the end of 2021, while the value of other participation increased from HUF 88 billion at the end of 2019 to HUF 441 billion at the end of 2021. Funds can typically finance the companies they own not only by means of equity investments but also by granting loans. Separate statistical data on these loans have been available since 2020. On the assets side, the balance sheet of the funds had loans of HUF 71 billion at the end of 2020, amounting to HUF 430 billion a year later. While the funds hold a significant amount of capital in bank deposits, the proportion of the deposit base within total assets decreased steadily to reach 16 per cent at the end of 2021. The balance sheet of venture capital and private equity funds for 2021 also showed a surge in the amount held in investment fund shares. This form of investment is not typical of these funds, which tend to hold this type of asset when funds with the same shareholder background acquire shares in each other.

**Chart 39**
**Changes in the shareholder structure of venture capital and private equity funds by main shareholder sector at end of the year, 2010–2021**



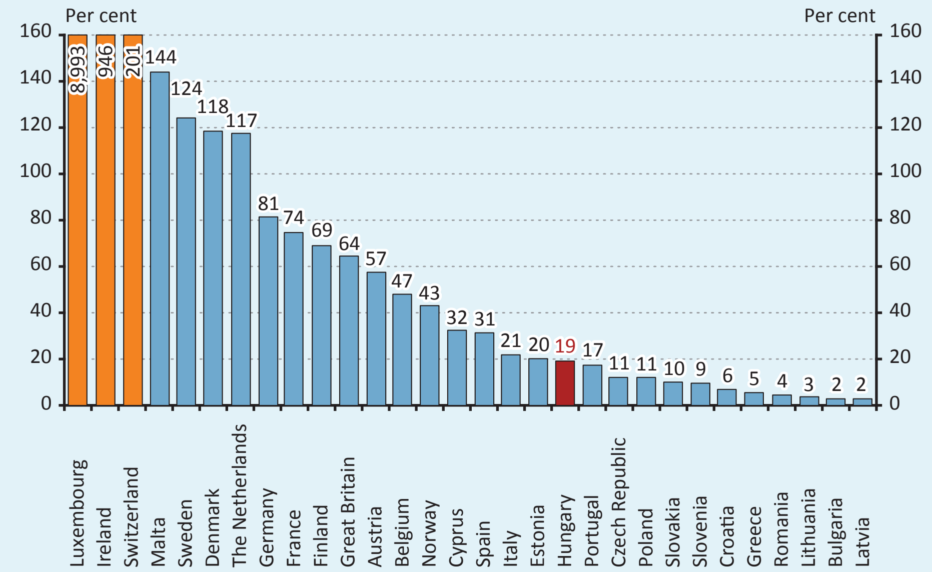

*Note: Sectoral breakdown by aggregating data for the corresponding resident and non-resident sectors.*

In recent years, venture capital and private equity funds have seen major changes in the shareholder structures. At the end of 2017, households owned only 2 per cent of the net asset value of the funds, and that ratio varied around 30 per cent from 2018 to 2020 before falling to 20 per cent by the end of 2021. A significant proportion of shareholders is comprised of financial and non-financial corporations, of which the weight of financial corporations increased during the period under review. During the period under review, the General government ownership remained stable at around 20 per cent.

# 4 International comparison

Looking at the net asset value of investment funds as a percentage of GDP, it can be seen overall that massive wealth is concentrated in these funds, but resident and foreign investors use this form of investment to varying degrees across European countries.

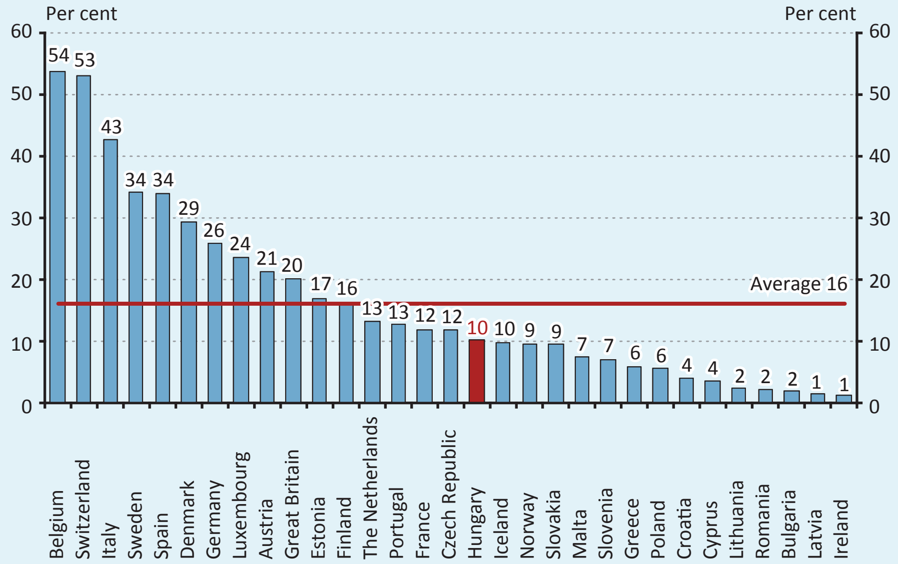
**Chart 40**
**Net asset value of investment funds as a percentage of GDP in individual European countries at the end of 2021**




*Source: Eurostat*

When European countries are ranked according to the net asset value of the investment funds resident there in proportion to their GDP, the highest-ranking countries will be those in which investment funds can be created and operated under favourable regulatory and tax conditions. In the top six countries, the net asset value of investment funds is above 100 per cent of GDP, and in some cases investment funds manage assets equivalent to multiples of GDP. The middle of the list is occupied by the countries of Northern and Western Europe, where the net asset value of resident investment funds is equivalent to 30–80 per cent of GDP. In the last ten countries on the list, the net asset value of investment funds does not exceed 10 per cent of GDP. Except for Greece, all of these countries are Central and Eastern European countries. In two Central and Eastern European countries, Hungary and Estonia, the net asset value of investment funds is equivalent to around 20 per cent of GDP.

**Chart 41**
**Outstanding amounts of investment fund shares held by households as a percentage of GDP in individual European countries at the end of 2021**

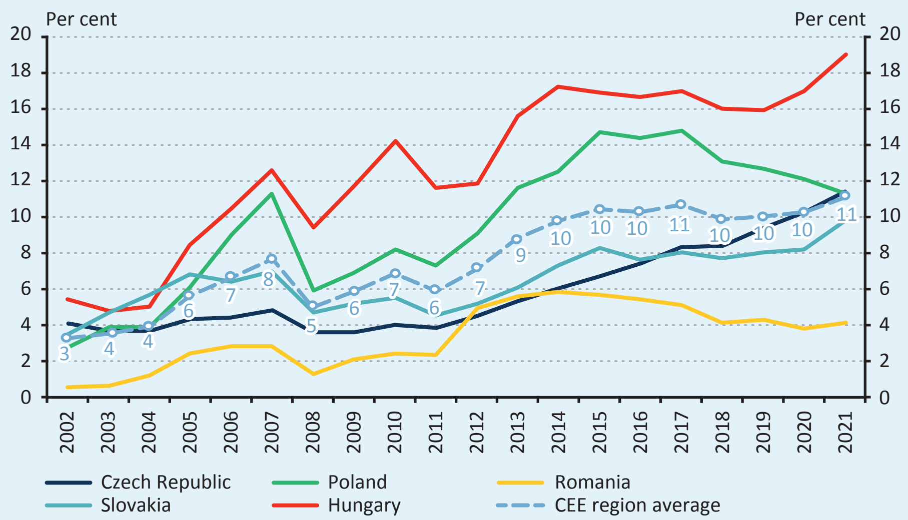



*Source: Eurostat*

In individual countries of Europe, the average stocks of investment fund shares held by households in 2021 was equivalent to 16 per cent of GDP. Hungary's ratio is 10 per cent, which ranks it in the middle of the range among EU countries. With a few exceptions, ratios below 10 per cent were measured in Central and Eastern European countries. Belgium and Switzerland have ratios above 50 per cent, which are outstanding even compared to the rest of Western European countries.

Looking at Charts 40 and 41 in conjunction, it deserves to be noted that in Ireland and Malta, where the net asset value of investment funds as a percentage of GDP was 946 per cent and 144 per cent at the end of 2021 respectively, for shares held by households the same ratio was significantly below the European average, 7 per cent for Malta and a mere 1 per cent for Ireland. These two countries in particular are characterised by the pronounced benefits offered to fund managers for the setup and operation of funds, and attract meaningful volumes of foreign capital to the country.

**Chart 42**
**Net asset value of investment funds as a percentage of GDP in individual countries of the CEE region**




*Source: Eurostat*

Examining the net asset value of resident investment funds as a percentage of GDP in each Central and Eastern European country, it can be seen that at the beginning of the 2000s, the ratio was below 10 per cent in all of those countries. Subsequently, significant increases were observed in Hungary and Poland until 2007, when the indicator had already exceeded 10 per cent in both countries, with values well above the regional average. Then, in the aftermath of the economic crisis starting in 2008, there were major decreases in all of the countries concerned, followed by stagnation in the investment fund market until the end of the European debt crisis in 2012. From 2013, with the exception of Romania, the sector resumed its growth path in all countries. By this time, with Hungary significantly outperforming, the regional average was already around 10 per cent, where it subsequently stagnated until 2021. In terms of developments in the assets of investment funds, since 2020 Hungary has fundamentally steered a different path from the other countries in the region, which is mainly explained by the significant increase in the net asset value of private equity funds.

# References

Act LXIII of 1991 on Investment Funds

Act CXX of 2001 on the Capital Market

Act XVI of 2014 on Collective Investment Trusts and Their Managers, and on the Amendment of Financial Regulations

Antonio Matas Mir, Jani Matilainen, Paolo Poloni, Rafael Quevedo, Barbara Zupancic (2010): Broadening the institutional coverage of financial statistics in the euro area. Bank for International Settlements, Switzerland

Baranyai, Eszter (2020): Mennyire ingatlanalapok az ingatlanalapok? (How real estate funds are real estate funds?). https://economaniablog.hu/2020/01/08/mennyire-ingatlanalapok-az-ingatlanalapok/ (Last update: 28 October 2022)

ECB (2007): Regulation (EC) No 958/2007 of the European Central Bank of 27 July 2007 concerning statistics on the assets and liabilities of investment funds (ECB/2007/8).

ECB (2013): Regulation (EC) No 1073/2013 of the European Central Bank of 18 October 2013 concerning statistics on the assets and liabilities of investment funds (recast) (ECB/2013/38).

ECB (2014): Guideline of the European Central Bank of 4 April 2014 on monetary and financial statistics (ECB/2014/15) (recast).

Karsai, Judit (2020): A kockázati- és magántőke-ágazat szerepe a gazdaságban (The role of the venture capital and private equity sector in the economy). KRTK-KTI Műhelytanulmányok. Közgazdaság- és Regionális Tudományi Kutatóközpont Közgazdaság-tudományi Intézet, Budapest.

Kerekes, György: Magyar pénzügyi és tőzsdei almanach (sorozat) (Hungarian financial and stock market almanac (series)). Tas-11 Kft., Budapest.

MNB (2009): A garantált alapok szektorának értékelése (Evaluation of the guaranteed funds sector). Magyar Nemzeti Bank, Budapest.

MNB (2012): Monetáris statisztikai kézikönyv (Handbook on Monetary Statistics). Magyar Nemzeti Bank, Budapest.

MNB (2013): Módszertani megjegyzések a tőkepiaci szereplők felügyeleti célú adatszolgáltatásán alapuló idősorhoz és tájékoztatóhoz (Methodological specifications for the time series and notes based on the data reporting of capital market participants for supervisory purposes). https://www.mnb.hu/letoltes/modszertani-megjegyzesek-tokepiac-201309.pdf (Last update: 28 October 2022)

MNB (2017): A háztartási szektor pénzügyi megtakarításai mikro- és makrostatisztikai adatok alapján (Financial savings of households based on micro- and macro-statistical data). Magyar Nemzeti Bank, Budapest.

MNB (2022): Decree No 54/2021. (XI. 23.) of the Governor of the Magyar Nemzeti Bank on the reporting obligations for the central bank information system to be fulfilled primarily in the relation to carry out the basic tasks of the Magyar Nemzeti Bank. Annex 2 on general provisions concerning the supply of information.

MNB (2022): Decree No 54/2021. (XI. 23.) of the Governor of the Magyar Nemzeti Bank on the reporting obligations for the central bank information system to be fulfilled primarily in the relation to carry out the basic tasks of the Magyar Nemzeti Bank. Completion instructions for the report ’Statistical balance sheet of investment funds’ (MNB identification number: F07).

MNB (2022): Módszertani leírás „A rezidens kibocsátású értékpapírok adatai kibocsátói és tulajdonosi bontásban” megnevezésű havi, továbbá a „Hitelviszonyt megtestesítő értékpapírok összefoglaló állománya tulajdonosi és kibocsátói bontásban” megnevezésű negyedéves jegybanki adatközlésekhez (Methodological specifications for the monthly reporting ‘The data of securities issued by residents in a breakdown by issuers and holders’ and the quarterly reporting ‘Summary stocks of debt securities in a breakdown by holders and issuers’). https://statisztika.mnb.hu/sw/static/file/ertekpapir-modszertan-hu-202201.pdf (Last update: 28 October 2022)

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2022

Print: Prospektus Kft.

H-8200 Veszprém, Tartu u. 6.

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