

# The Role of Cash in Household Savings\*

Ildikó Ritzl<sup>ID</sup> – Anikó Száraz<sup>ID</sup> – Anikó Bódi-Schubert<sup>ID</sup>

*According to both domestic and international analyses, the stable behaviour of household cash holdings in developed countries is primarily attributable to cash holdings for accumulation purposes. In our study, we review the factors that characterised the holding of forint cash for accumulation purposes between 2022 and 2025 and examine the motives behind individual cash-holding decisions, based on the results of a survey conducted among the adult Hungarian population. Our findings suggest that households' savings practices can be organised into a savings needs pyramid, in which cash plays a significant role in the safety reserve category, and individuals make what they perceive to be a rational decision regarding its holding in light of the foregone return. The mobilisation of funds held in liquid form as a safety reserve towards investment can be achieved by increasing institutional trust and reducing economic and social uncertainty.*

**Journal of Economic Literature (JEL) codes:** G41, G51, E21

**Keywords:** savings, cash, savings needs pyramid

## 1. Introduction

With the spread of electronic payments, the role of cash has changed significantly in recent decades. At the start of the millennium, in conjunction with a decline in transactional cash demand, many predicted that cash would soon disappear from everyday life (Rogoff 2016). By contrast, nominal demand for cash – aside from the Scandinavian countries – has increased on the whole over the past decade and a half (Ashworth – Goodhart 2020). Several studies confirm that this phenomenon is driven by cash holding for accumulation purposes, which is also evident in the case of demand for the euro (Zamora-Pérez 2021).

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\* The papers in this issue contain the views of the authors which are not necessarily the same as the official views of the Magyar Nemzeti Bank.

Ildikó Ritzl: Magyar Nemzeti Bank, Senior Cash Policy Expert. Email: ritzl@mnk.hu

Anikó Száraz: Magyar Nemzeti Bank, Senior Cash Policy Expert. Email: szaraz@mnk.hu

Anikó Bódi-Schubert: Magyar Nemzeti Bank, Head of Department. Email: schuberta@mnk.hu

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During periods of high inflation, it is even more economically justified for households to significantly reduce their cash holdings and invest accumulated cash in interest-bearing instruments to preserve stability of value. In Hungary, however, during the period of rising inflation in 2022–2023, the amount of cash held by households fell only to a relatively moderate extent, even as inflation reached 25.7 per cent in early 2023, and the nominal value of cash in circulation remained stable even in the volatile economic environment that followed. Examining the relationship between inflation and households' cash holdings is also justified because, according to economic logic, it is not rational to hold cash even in a low-inflation environment; the losses are simply smaller in such circumstances.

Our research was motivated by a desire to understand how households structure the composition of their savings and asset accumulation, with particular regard to the role of cash. What might explain why such a seemingly irrational trend has been observed in Hungary in recent years, despite the progress in financial education (*Educational Authority 2024*)?

*Bódi-Schubert – Ritzlné Kazimir (2023)* conducted a macro-focused analysis covering the period 2004–2022. According to their findings, over the long-term cash holdings are shaped by households' net wealth, long-term and short-term yields, uncertainty, the real effective exchange rate, the cost of financial services and the institutional environment. Over the short term, only uncertainty and short-term yields were found to be explanatory factors. Building on this earlier analysis, the present study complements the investigation by mapping the factors influencing individual decision-making, demonstrating how cash holdings are shaped by various factors at the individual level, and how uncertainty and trust in the institutional system are reflected in individual savings decisions.

The first part of the study presents the macroeconomic trends observed since 2022, thereby complementing the analysis by *Bódi-Schubert – Ritzlné Kazimir (2023)*; this is followed by an examination of individual attitudes on savings decisions based on the results of focus group discussions and a representative sample survey of households.

## **2. Trends in cash demand and accumulation**

In the period 2022–2025, nominal cash demand was on the rise, apart from the period of rising inflation in 2022–2023. Cash demand can be for transactional or accumulation purposes. In line with previous trends, transactional cash demand showed a downward trend, whereas non-transactional cash holdings continued

to expand in nominal terms during this period. The increase in households' cash holdings for accumulation purposes was driven by the persistently high uncertainty characteristic of this period, which was mitigated by relatively high yields. Finally, *Subsection 2.3* confirms that activity in the hidden economy still does not represent the main driver of growth in cash demand.

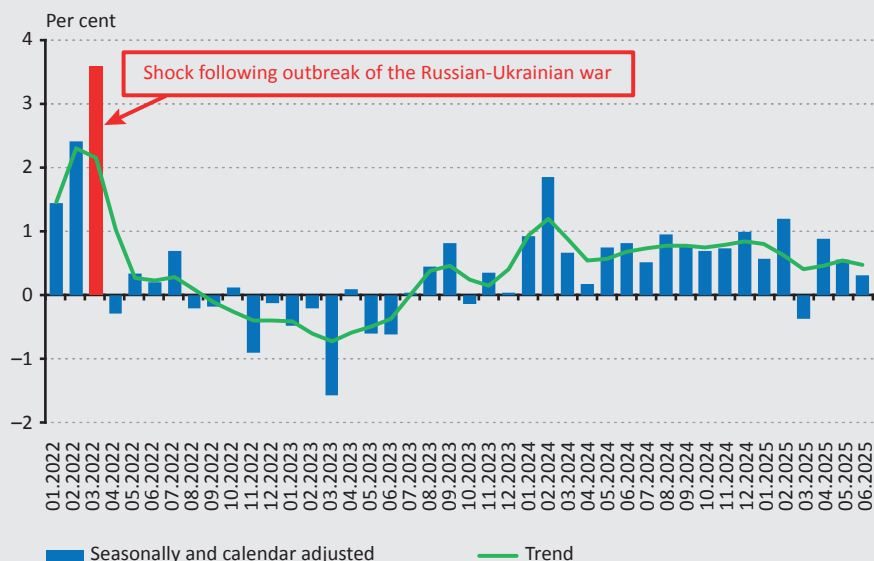
## 2.1. Changes in cash demand

This study examines the development of cash demand between January 2022 and 2025 Q1. In March 2022, the panic caused by the outbreak of the Russia–Ukraine war led to a surge in demand for cash. In the two weeks following the start of the war, the amount of cash in circulation increased by nearly HUF 500 billion, representing a rise of more than 6 per cent in three weeks. The cash demand shock following the outbreak of the Russia–Ukraine war also occurred in countries across the region and in the euro area, although its magnitude decreased with increasing geographical distance from the conflict (*Faella – Zamora-Pérez 2025*).

Following the cash demand shock, the adjustment process lasted until October 2022, during which time households gradually reduced the cash holdings accumulated in March. This was reflected in the fact that, although a monthly increase in nominal cash holdings was observed at the start of the process, the rate of this increase fell short of previous levels. At the same time, weakening of the correction process coincided with a drop in cash demand caused by inflation, which had been rising dynamically since 2022 Q2. As a result, a decline occurred on a monthly basis from August 2022 to July 2023: during this period, the amount of cash in circulation fell by 4.2 per cent, or HUF 353.4 billion. Despite this decline, at the end of July 2023, the amount of cash in circulation was 2.6 per cent higher than at the end of 2021. Starting from August 2023, in line with the moderation of inflation, cash holdings have once again moved on an upward trend, although the monthly growth rate has lagged behind the rate seen between 2013 and 2020. Nominal cash in circulation increased by 18.4 per cent from HUF 7,788.3 billion at the end of 2021 to HUF 9,218.6 billion by the end of June 2025 (*Figure 1*).

Examining the amount of cash in circulation in terms of its real value or in relation to household wealth or GDP, it is clear that the period between 2022 and 2025 differed significantly from the economic boom period between 2013 and 2019 (*Table 1*).

**Figure 1**  
Changes in cash demand based on seasonally and calendar-adjusted data



Note: Previous month = 100; the value marked in red in the figure indicates an outlier detected by the JDemetra+ seasonal adjustment software.

Source: Calculations based on Magyar Nemzeti Bank (MNB) data

**Table 1**  
Key data for periods relevant to cash demand

|                                                                                                 | 2013–2019 | 2022 – June 2025 |
|-------------------------------------------------------------------------------------------------|-----------|------------------|
| Annual average change in households' real net financial wealth (%)                              | +10.1     | +4.3             |
| Average 3-month government bond market reference interest rates (%)                             | +1.1      | +7.9             |
| Average annual change in real GDP (%)                                                           | +4.2      | +1.0             |
| Annual average inflation (%)                                                                    | +1.4      | +9.1             |
| Monthly relative standard deviation of changes in cash demand during the period in question (%) | 1.1       | 2.7              |
| Annual average change in the nominal value of cash holdings (%)                                 | +13.4     | +3.9             |
| Annual average change in the real value of cash holdings (%)                                    | +10.9     | –5.9             |

Source: Based on MNB Preliminary financial accounts of the general government and households: <https://statiztika.mnb.hu/statistical-topics/financial-accounts/statistical-releases/preliminary-financial-accounts-of-general-government-and-households>, Government securities market reference interest rates: [https://statiztika.mnb.hu/statistical-topics/interest-rates\\_-money-and-capital-market-data/benchmark-yields-on-government-debt-securities/benchmark-yields-on-government-debt-securities](https://statiztika.mnb.hu/statistical-topics/interest-rates_-money-and-capital-market-data/benchmark-yields-on-government-debt-securities/benchmark-yields-on-government-debt-securities) and Hungarian Central Statistical Office (HCSO) data (1.2.1.1. Key price indices, by month [same period of the previous year = 100.0 per cent], [https://www.ksh.hu/stadat\\_files/ara/en/ara0039.html](https://www.ksh.hu/stadat_files/ara/en/ara0039.html) and 21.2.1.8. Gross domestic product (GDP) output at 2021 average prices, by economic sector, seasonally and calendar-adjusted and balanced quarterly data [HUF million], [https://www.ksh.hu/stadat\\_files/gdp/en/gdp0092.html](https://www.ksh.hu/stadat_files/gdp/en/gdp0092.html)), calculation by authors, preliminary estimate for 2025

Following the 2008–2011 economic crisis, the amount of cash in circulation grew dynamically in both real and nominal terms starting from January 2013 to the end of 2019, with this expansion characterised by moderate volatility. The cash-to-GDP ratio rose from 10.6 per cent in 2013 to 13.8 per cent in 2019. This steady growth was attributable to low inflation, a moderating interest rate environment, dynamic economic growth and rising household wealth.

By contrast, from 2022 onwards, growth in household financial wealth moderated, with yields significantly exceeding the levels seen between 2013 and 2019. Cash holdings as a percentage of GDP declined from 2020 and stabilised at around 10.8 per cent from 2023. Overall, the macroeconomic environment was unfavourable during this period, with GDP growth averaging 1 per cent annually and average annual inflation at 9.1 per cent. The turbulent economic environment was also reflected in the high relative standard deviation of cash demand. As a result, the real value of cash in circulation declined by an average of 5.9 per cent annually (*Table 1*). The trends for both nominal and real values of the amount of cash proved to be inelastic relative to the rise in the price level.

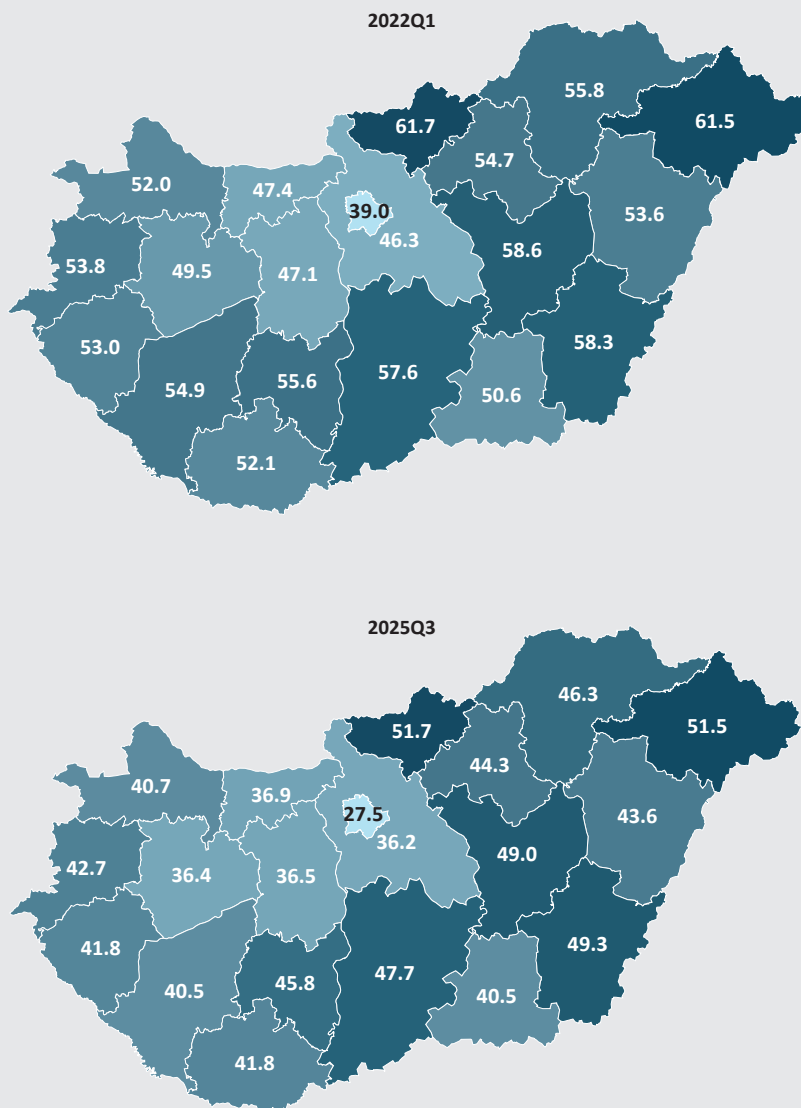
These trends suggest that, following the decline in previous years, cash holdings as a proportion of GDP have stabilised since 2023, meaning that cash holdings for accumulation purposes have stabilised at a lower level in real terms.

## 2.2. Cash demand of Hungarian households

Electronic payment methods expanded strongly between 2022 and 2025, according to data from online cash registers (OPG). A year-on-year decline in the number of cash transactions became characteristic from June 2022, and from November 2023, the value of cash transactions has also been falling continuously compared to the same prior-year period, leading us to conclude that demand for cash for transactional purposes is dropping. In January 2022, cash transactions accounted for 50.7 per cent of the value of transactions recorded in the OPG system; by the end of June 2025, this proportion had fallen to 39.4 per cent.

At the same time, cash use exhibits significantly different patterns across regions, which can be explained by regional differences in both income and preferences for cash use. It is characteristic of the country as a whole that as gross real average earnings rise, the proportion of cash transactions falls; however, the rate of change in this indicator affects the change in the proportion of cash transactions to varying degrees across the counties in Hungary (*Figure 2*).

**Figure 2**  
**Total value of cash transactions to total transactions (%)**



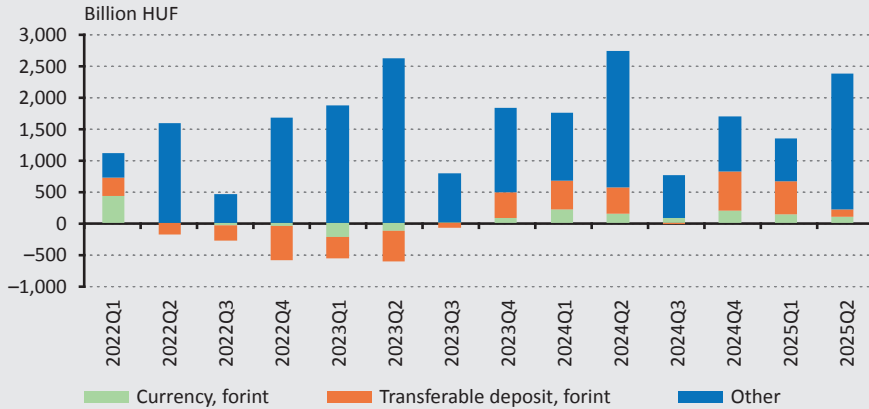
Based on OPG data, alongside a clear decline in demand for cash for transactional purposes, the accumulation of cash for savings purposes has become the dominant driver of household demand for cash.

Examining savings behaviour as a proportion of GDP, the Hungarian household sector has seen net financial savings (also known as net lending, calculated as the difference between gross financial asset growth and liability growth) of around 6 per cent of GDP, which is higher than the figures recorded in other countries in the region or across the EU as a whole, according to data from the MNB's 2025 Savings Report (*MNB 2025*). In general, although household net financial savings show an upward trend relative to GDP, the proportion of cash within gross savings has been steadily declining since 2011. The proportion of savings held in cash fell from 9.3 per cent in 2022 to 7.7 per cent in 2025 H1.

Given the rise in inflation in the summer of 2022, it may have seemed a rational decision to tie up cash that was losing value and thus preserve its value. However, data from detailed quarterly household financial accounts show that, although the amount of cash held by households fell during the period of high inflation between 2022 Q2 and 2023 Q2, the decline in current account deposits was several times larger (*Figure 3*). Compared to the holdings data at end-2022 Q1, cash held by households had fallen by 6.8 per cent by end-2023 Q2, while deposits held with credit institutions had dropped 16.1 per cent. During the same period, holdings of other financial assets (households' financial assets excluding forint cash and deposits held with credit institutions, such as government securities, bonds and shares) expanded by 17.8 per cent. From this, we conclude that deposits held with credit institutions reacted more flexibly to changes in inflation, while cash holdings can be regarded as rather inelastic in response to rising price levels. In other words, even under unfavourable conditions, households only moderately reallocate their available cash into yield-generating assets, whereas they are much more likely to do so with deposits.

As inflation fell from the end of 2023, the nominal stock of cash holdings and current account deposits held with credit institutions rose again, as households "replenished" funds in these forms of saving. From the end of 2023 Q2 to the same period in 2025, cash holdings increased by 16.5 per cent, deposit holdings by 25.8 per cent and holdings of other financial assets by 26.6 per cent. Thus, even during a period of falling inflation, the trend in nominal cash holdings by households proved to be more inelastic compared to deposit holdings. The inelasticity of cash relative to deposit holdings implies that substitutability between cash and other financial assets, such as government securities, bonds and shares, is considerably lower than between amounts held in current accounts and other financial assets.

**Figure 3**  
**Changes in household financial assets compared to the previous quarter**

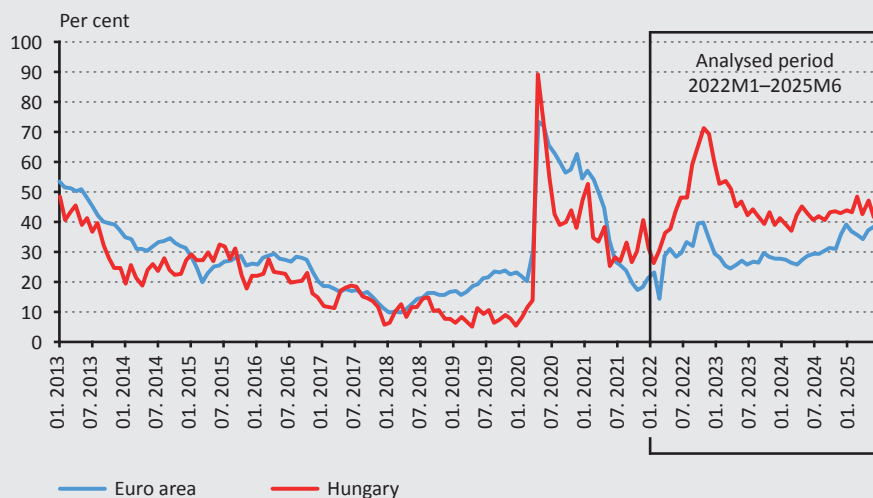


Source: MNB (preliminary financial accounts of the general government and households: <https://statistika.mnb.hu/statistical-topics/financial-accounts/statistical-releases/preliminary-financial-accounts-of-general-government-and-households>)

Bódi-Schubert – Ritzlné Kazimir (2023) demonstrated that rising uncertainty increases demand for cash both in the short term and long term. Uncertainty was approximated using the ESI index, which measures perceptions of unemployment prospects, as the fear of job loss poses a serious existential threat. A higher index value indicates that a larger proportion of the population expects to lose their job in the next twelve months (Figure 4). The Russian–Ukrainian war that broke out in March 2022 significantly increased this uncertainty in Hungary, but the peak reached at that time did not match the levels recorded at the onset of the 2008 crisis or at the start of the COVID-19 pandemic. The difference compared to these local peaks is that the index level has not fallen permanently. The indicator ranges at values between 30 and 40, despite the fact that the unemployment rate has not risen significantly since then, reaching 4.3 per cent in June 2025, which is 0.7 percentage point higher than the figure for June 2022. By way of comparison, the ESI index, which measures unemployment prospects, ranged between 0 and 20 in the period between 2013 and 2019. The persistently high level of uncertainty has been fuelled by the rapid, unexpected economic, political, social and other changes that have characterised the turbulent period continuing to the present day, which (may) directly or indirectly impact individuals' lives significantly and (could) thus lead to growing uncertainty.

Uncertainty regarding unemployment prospects in Hungary has consistently exceeded the euro area average since the COVID-19 pandemic. This pattern was previously observed only during periods of economic crisis. Between 2013 and 2016, the Hungarian and euro area indicators were at similar levels, while between 2016 and 2019, domestic uncertainty lagged significantly behind that of the euro area. The data suggest that uncertainty may continue to contribute to the high level of household cash holdings in Hungary.

**Figure 4**  
**Assessment of unemployment prospects for the next twelve months**

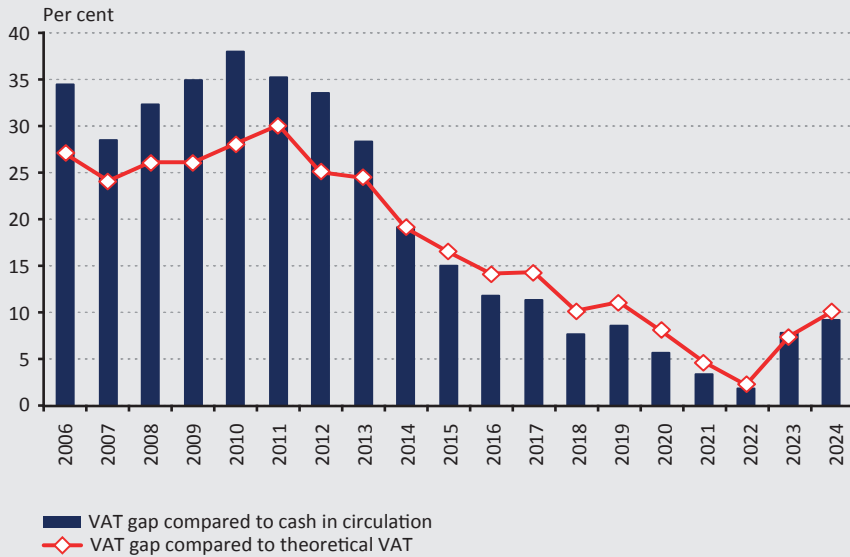


Source: European Commission (Economic Sentiment Indicators: [https://ec.europa.eu/economy\\_finance/db\\_indicators/surveys/documents/series/nace2\\_ecfin\\_2510/consumer\\_total\\_sa\\_nace2.zip](https://ec.europa.eu/economy_finance/db_indicators/surveys/documents/series/nace2_ecfin_2510/consumer_total_sa_nace2.zip), downloaded: 7 November 2025)

### 2.3. Impact of the hidden economy on cash demand

In public discourse regarding the expansion of the cash in circulation, it is often suggested that the growth of the hidden economy explains the increase in demand for cash. It is clear that, in addition to transaction and savings factors, the cash requirements of the hidden economy also have an impact on cash demand to a certain extent. The most significant measurable factor in the hidden economy is VAT evasion, which declined steadily between 2011 and 2022 based on VAT gap estimates (Ritzlné Kazimir – Máténé Bella 2020); however, a trend reversal occurred from 2023 onwards, with the VAT gap returning to a growth trajectory. The long-term trend in cash demand is explained not only by the usual variables but also by the hidden economy; it is therefore likely that the rising rate of VAT fraud over the past three years has also contributed to the expansion of cash demand (Figure 5).

**Figure 5**  
Hungarian VAT gap as a ratio of theoretical VAT and of cash in circulation



Note: The VAT gap shows the proportion of unpaid VAT relative to theoretical VAT.

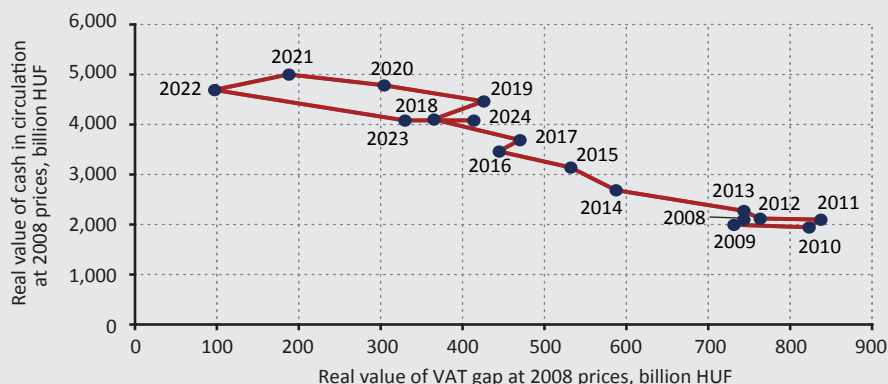
Source: European Commission (VAT Gap in the EU: <https://op.europa.eu/en/publication-detail/-/publication/298d43e2-bd28-11ef-91ed-01aa75ed71a1/language-en>, downloaded: 6 June 2025, as well as VAT Gap in the EU Report 2025: <https://op.europa.eu/en/publication-detail/-/publication/b5c7403b-d67f-11f0-8da2-01aa75ed71a1/language-en>, the 2024 data were calculated from the table containing the underlying data: [https://taxation-customs.ec.europa.eu/document/download/c4ce2e13-0a9b-4a26-8f49-7238a8b4dc7a\\_en](https://taxation-customs.ec.europa.eu/document/download/c4ce2e13-0a9b-4a26-8f49-7238a8b4dc7a_en), downloaded: 7 January 2026)

Figure 5 shows that the hidden economy may have played a more significant role in the development of cash in circulation between 2006 and 2013 than in the period from 2014 to 2022. The trend reversal that occurred after 2022 may have increased the share of the hidden economy in cash demand once again, but this role cannot be compared to that of the period prior to 2014. This supports the view that, while the significance of the hidden economy cannot be overlooked in terms of cash demand, it was not the main driving force behind the nominal growth in cash demand during the period of intense expansion between 2014 and 2022.

If, instead of the nominal value of cash in circulation and the VAT gap, we focus on their real values, it is clear that there is a strong negative relationship between the two variables, with a correlation coefficient of  $-0.959$ ; i.e. a decrease in the real value of the VAT gap is accompanied by an increase in the real value of cash in circulation. An examination of this phenomenon, as well as an analysis of cash demand in the hidden economy, goes beyond the scope of this study for reasons of

length, but based on *Figure 6*, it can be stated that, *ceteris paribus*, an increase in the VAT gap is not accompanied by an increase in the amount of cash in circulation.

**Figure 6**  
Real value of cash in circulation and real value of VAT gap at 2008 prices



Source: European Commission (VAT Gap in the EU: <https://op.europa.eu/en/publication-detail/-/publication/298d43e2-bd28-11ef-91ed-01aa75ed71a1/language-en>, downloaded: 6 June 2025, as well as VAT Gap in the EU Report 2025: <https://op.europa.eu/en/publication-detail/-/publication/b5c7403b-d67f-11f0-8da2-01aa75ed71a1/language-en>, the 2024 data were calculated from the table containing the underlying data: [https://taxation-customs.ec.europa.eu/document/download/c4ce2e13-0a9b-4a26-8f49-7238a8b4dc7a\\_en](https://taxation-customs.ec.europa.eu/document/download/c4ce2e13-0a9b-4a26-8f49-7238a8b4dc7a_en), downloaded: 7 January 2026) and Hungarian State Treasury (Budget balance of the central sub-sector, Archive: [https://www.allamkincstar.gov.hu/Koltsegetes/Kozponti\\_alrendszer\\_-\\_Merlegek/a-kozponti-alrendszer-koltsegetesi-merlege/Archivum](https://www.allamkincstar.gov.hu/Koltsegetes/Kozponti_alrendszer_-_Merlegek/a-kozponti-alrendszer-koltsegetesi-merlege/Archivum), downloaded: 6 June 2025)

### 3. Individual incentives for accumulation in cash – research findings

The aim of the research was to explore the motivations behind the prevalence of cash accumulation among the adult Hungarian population. To this end, in 2025 Q1, the Magyar Nemzeti Bank conducted a comprehensive survey of households' cash use habits, mapping household cash use habits and attitudes through a questionnaire survey and focus group interviews.<sup>1</sup> The questionnaire data was collected from a representative sample of 1,500 adults using a hybrid method, comprising 1,000 online respondents and 500 telephone respondents. The survey data was grossed up to the entire adult population based on variables such as gender, educational attainment, type of residence and age, using data from the 2022 census.

A total of six focus group interviews were held, two in Budapest and one each in Debrecen, Győr, Keszthely and Tiszaöldvár. Each focus group consisted of ten participants; in selecting the participants, the composition of the adult population was taken into account in terms of gender, age and educational attainment.

<sup>1</sup> The public opinion survey was conducted by Századvég Konjunktúrakutató Zrt.

The focus group interviews were recorded, and the transcripts were produced using Alrite software. In the analysis of the text (Nyumba *et al.* 2018; Rabiee 2004), passages relating to accumulation were subjected to multi-round categorisation (Lochmiller 2021), which identified forms of accumulation, perspectives, emotions, life situations and cognitive distortions. The detailed methodology for analysing the focus group interviews and the results of this analysis are described in Ritzl *et al.* (2026).

By exploring the role of cash in accumulation through the focus group interviews, it becomes clear why households hold a proportion of their accumulation – which is decreasing in relative terms, but remains significant at the macroeconomic level – in cash, a decision that appears irrational. A key element in explaining cash holdings is the categorisation of savings according to the savings needs pyramid. This aspect, along with the findings on savings from the representative household survey, is covered in *Subsection 3.1*. In *Subsection 3.2*, we analyse the factors determining individual-level decisions that shape cash holdings and the categories of the savings needs pyramid.

### **3.1. Savings needs pyramid**

Although in economic terminology “savings” is a clear-cut category identified as the unspent portion of income, in everyday language the term “savings” cannot be regarded as a comprehensive concept for the same thing from a semantic perspective. Additionally, our household survey confirms that the term “savings” may denote both stock and flow values. Another important finding is that the research revealed that synonyms for “savings”, such as money set aside, investment, safety reserve, emergency fund, reserve and wealth, have different layers of meaning in the individual’s cognitive assessment: they have different purposes and functions, and different emotional attitudes are associated with them. Due to these differing emotional associations and purposes, these categories are in a hierarchical relationship with one another. The formation of these different categories has two main implications for our research.

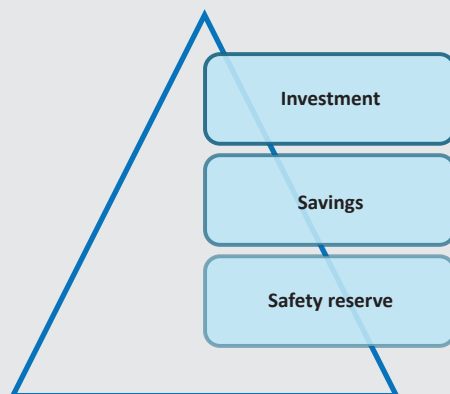
Consequently, in the case of the household survey, we had to take into account that, due to the non-comprehensive and semantically ambiguous meaning of the term “savings”, responses to questions containing this word would cover only part of the information set and could even lead to misleading results. For this reason, it was necessary to treat the stock of accumulated funds and the process of accumulation separately, a point we kept in mind when formulating both the questionnaire and the focus group discussion guidelines. Cash plays a role both in the stock of savings available to the individual and in the accumulation process, but these two are distinct.

Furthermore, due to the hierarchical relationship between the categories “safety reserve”, “savings” and “investment”, which are all used to describe accumulation, it was necessary to map out the discernible hierarchical structure between them in detail. Given the nature of the problem, we were mainly able to carry this out during the focus group interviews, where we examined the attitudes associated with each term, the decision-making mechanisms, the factors influencing the relative weight of the different layers and the process of change in such.

The hierarchical structure of accumulation needs explains why sums of money not intended for spending in a given month, and the various components of financial wealth, are distinct, serve different functions and are generally associated with different attitudes. This hierarchical relationship also contributes to the fact that households hold part of their savings in cash or other liquid forms. This hierarchical structure is similar to *Maslow’s (1954)* hierarchy of needs. The delineation of categories related to accumulation was already formulated by *Fisher (1930)* and *Keynes (1936)*, but the hierarchical structure of the categories was later confirmed (*Lindqvist 1981; Xiao – Noring 1994; DeVaney et al. 2007*), with assets of varying liquidity and risk (*Xiao and Anderson 1997*) and different planning time horizons being assigned to the levels (*DeVaney et al. 2007*).

Generally speaking, in the focus group interviews, the concept of accumulation was broken down into the well-defined categories of safety reserves, savings and investment for the majority of participants (*Figure 7*). This categorisation is considerably simpler than that defined in the literature, containing fewer levels. At the same time, it should be noted that those multi-level classifications are based on questionnaire-based data surveys, where the levels were determined as a function of income.

**Figure 7**  
**Levels of the savings needs pyramid**



Based on the results of the focus group interviews, the three categories are arranged in a hierarchical relationship: the most important is the creation of a safety reserve, followed by savings for a specific long-term purpose, while investment comes on top of this, with the sole aim of generating income.

The stratification of accumulation levels also clearly emerged in the analysis of the focus group interview transcripts. However, for some participants, a safety reserve and savings were one and the same concept, because “they are used to it, they treat them as one”, or in many cases, their low disposable income does not make it possible for them to distinguish between the two. These are the persons who distinguish, at most, between current expenditure and money set aside. In the following, we briefly outline the characteristics of the three savings categories as identified through focus group interviews.

### *3.1.1. Safety reserves*

Participants defined the safety reserve as the amount needed for unexpected expenses, which they must have available at all times. Liquidity is a key feature of safety reserves: when accumulating them, yields and, in parallel, stability of value play absolutely no role, which is why it is typical for participants to hold at least part of their safety reserve in cash.

Of the attitudes associated with the safety reserve, the pursuit of security is the most significant. In this case, this refers to the individual’s security: should they need money due to some sudden event, it should be immediately available to them. In other words, liquidity itself contributes to the individual’s security. Of all the forms of saving, the safety reserve is associated with the most intense emotions. The safety reserve alleviates anxiety caused by uncertainty and fear arising from perceived reality; its existence brings peace of mind and stability. The safety reserve is to be used in the event of “disasters”; participants spoke of it with much greater intensity and significant emotional charge.

Its accumulation depends less on the individual’s circumstances, knowledge or expertise, as the main motivation is that “it is necessary” and “it must be available”. The safety reserve is of a size determined by the individual; its absence causes tension and negative feelings, which are alleviated once the specified amount level is reached, while use of the reserve rekindles these feelings. This may be linked to the fact that regularity was not mentioned in relation to the accumulation of the safety reserve; it “must be available”.

Regarding the safety reserve, participants also specified amounts ranging from a few hundred thousand forints to HUF 2–3 million or defined it as an amount sufficient to cover three to twelve months of living expenses. Nearly one-half of the participants emphasised that they keep the safety reserves they have accumulated

at home in cash. Taking the above into account, and based on the HCSO's earnings statistics, the initial amount of safety reserves is around HUF 1 million for those with a median income (*Table 2*).

| <b>Table 2</b>                                                                             |                                                                 |
|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <b>Hypothetical development of the value of safety reserves held by households in 2024</b> |                                                                 |
| <b>Time horizon</b>                                                                        | <b>Safety reserve calculated from net median earnings (HUF)</b> |
| Three months                                                                               | 1,067,203                                                       |
| Six months                                                                                 | 2,134,406                                                       |
| Twelve months                                                                              | 4,268,812                                                       |

*Note: Gross median earnings = HUF 516,994/month/person; calculated using the net/gross average earnings ratio (68.8 per cent) to derive the net median earnings (HUF 355,734/month/person).*

*Source: HCSO (20.2.1.41. Main earnings data – for all employers, monthly and monthly/quarterly cumulative. STADAT table: [https://www.ksh.hu/stadat\\_files/mun/en/mun0143.html](https://www.ksh.hu/stadat_files/mun/en/mun0143.html), downloaded: 30 September 2025)*

Another characteristic theme was that focus group participants were aware of the loss of value of cash holdings due to inflation; in other words, holding cash in this context represents a consciously accepted loss, and thus cannot be attributed to a lack of financial education. As economic or livelihood uncertainty increases, the value of safety reserves rises. Therefore, there is little chance that, in the event of inflation, these sums will be channelled into less liquid forms.

Accumulation in foreign currency is a specific form of safety reserve, as it alleviates internal anxiety linked to inflation and the devaluation of the forint; consequently, participants value the security it provides and regard the currency as a store of value. They primarily mentioned the euro, and also the US dollar, which some keep at home.

### 3.1.2. Savings

Unlike safety reserves, savings generally serve to achieve a specific goal. In this context, participants frequently mentioned savings for retirement or buying property as well as increasing their standard of living. These goals are not linked to day-to-day, everyday needs, and savings for anticipated healthcare costs also feature. When it comes to savings, regularity is valued highly, and factors such as stability of value, yields and costs are also important. Generally, people set aside a specific amount or a certain proportion of their income on a regular basis or with the aim of doing so regularly.

From an emotional perspective, accumulating savings is seen as beneficial, and many mentioned it as a means of achieving happiness.

In the case of savings, cost, yields and security were mentioned most frequently, but here, security relates less to the individual themselves and more to the

individual's desire to know that their money is safe; security and stability of value were identified as the primary decision-making criteria. When discussing savings, participants frequently mentioned government bonds as a safe form of saving.

As yields and costs are important considerations when saving, and participants generally do not trust banks to have their best interests at heart, distrust of banks and a general lack of confidence are strongest here, resulting in a shorter planning time horizon.

The role of cash in savings is far less dominant compared to safety reserves, but it is also a common practice for many to accumulate their savings in cash up to a certain threshold before turning to a financial institution.

Furthermore, saving in cash was mentioned in the interviews as a way of avoiding bank charges, and even in this case, liquidity and accessibility play a significant role. In relation to savings, cash was mentioned alongside attitudes of fear, trust and uncertainty; many also identified cash as a means of alleviating general uncertainty and distrust of banks.

### *3.1.3. Investment*

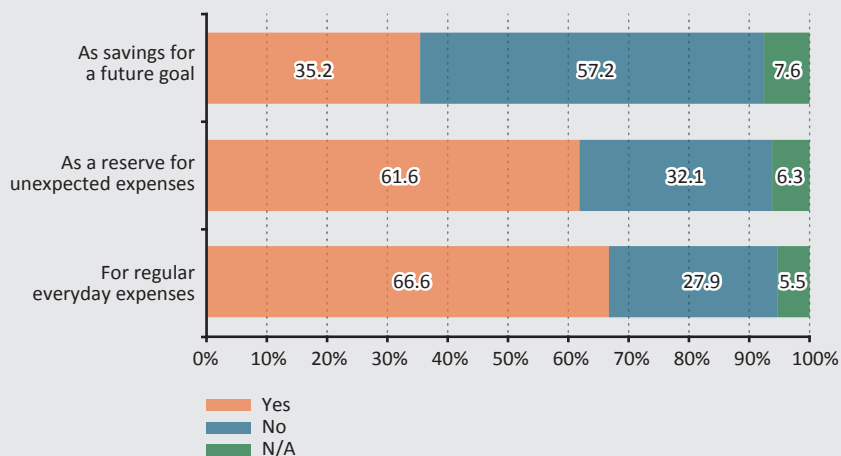
According to the reasoning of the majority of respondents, investment can take place when a larger sum of money is available to the individual and they do not plan to use it in the near future. In this category, the available yields and costs become the key considerations. In several cases, it was suggested that rather than financial products, property is considered the safest and most stable form of investment. Investment is clearly long-term and is less associated with deep, personal emotions. This is the "extra money" that people wish to use to generate income and is therefore seen as more distant than the sums used to meet immediate day-to-day needs. In the case of investments, cash plays no role at all.

### *3.1.4. Results of the questionnaire survey*

The results of the focus group interviews are exploratory in nature and do not provide representative information on the frequency of specific behaviours. However, based on the survey data, we can get a sense of the role cash plays in the savings behaviour of the adult population at each level of the savings needs pyramid. However, as focus group findings indicated that cash played no role whatsoever in investment, we asked specifically about holding cash for transactional purposes, as a safety reserve and for savings purposes. 66.7 per cent of respondents keep cash at home for regular day-to-day expenses, and 61.6 per cent also keep it as a safety reserve for unexpected, sudden expenses. Cash categorised as savings was identified by only 35.2 per cent of respondents (*Figure 8*).

**Figure 8**

**Does your household keep cash in forints for the following reasons?**



Note: N=1,500

When examining the driving forces behind keeping cash at home, the most important motivation proved to be building a safety reserve, with 82 per cent of respondents stating that “it is good to have cash at home in case of any unexpected events”. This held true for respondents regardless of educational attainment, income or place of residence (*Figure 9*).

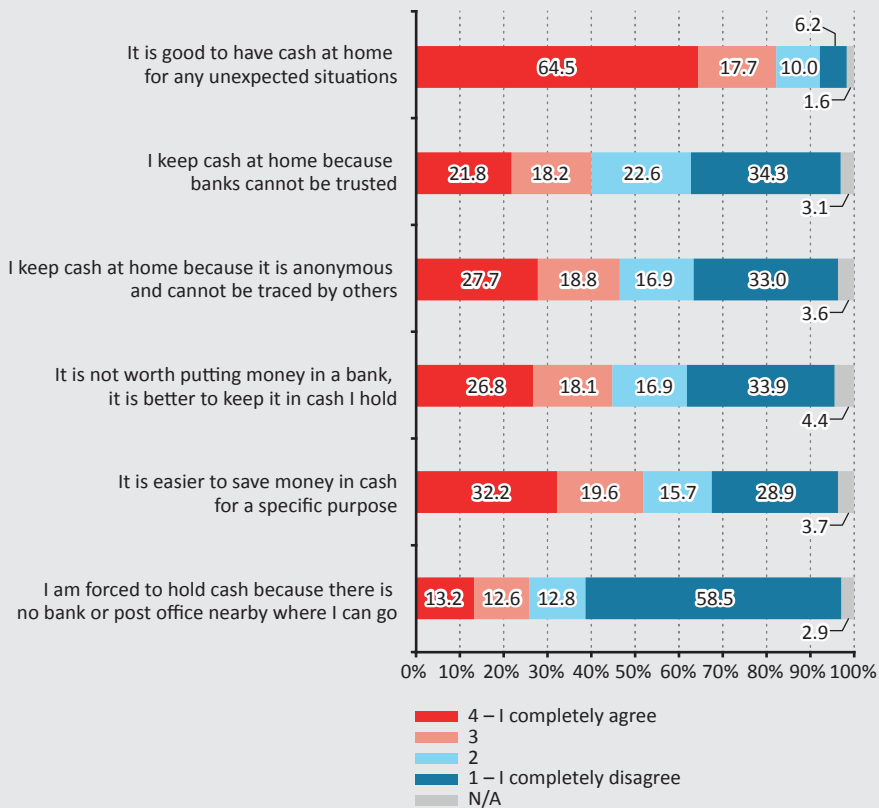
More than half of the respondents (52 per cent) believed that it is easier to set aside cash for a specific purpose; this response points to the prevalence of mental accounting. This simple technique is aimed at maintaining self-control, with the goal of fostering consistent behaviour towards long-term goals (*Thaler – Shefrin 1981*). Cash can be a good tool for this because, as it is physically tangible, spending it feels like a greater loss compared to electronic payments, particularly when large banknote denominations are involved (*Raghubir – Srivastava 2008, 2009*).

In the focus group interviews, several layers of distrust towards credit institutions emerged. The argument that banks’ pricing practices are unfair or excessive, and that it is therefore not worth putting money in the bank, seemed fairly widespread. More serious, yet still quite common, was the view that it is not worth putting money in the bank because ultimately the individual does not get back what was promised to them. Fear of bank failure also emerged during the interviews, but extremely rarely. Finally, the highest level of distrust is distrust of the entire institutional system, which may encourage individuals to seek anonymity. Based on this, distrust of financial institutions may stem from the following sources:

(i) a lack of knowledge or competence, i.e. the individual does not possess the financial knowledge required to realistically assess the costs and yields of alternatives to holding cash; (ii) reputation, i.e. social attitudes regarding the assessment of financial institutions; (iii) the unequal balance of power and ability to assert interests between the individual and the financial institution. A lack of trust in banks and the financial system motivates 40–50 per cent of respondents to hold cash.

Finally, it is worth noting that a quarter of respondents (25.8 per cent) keep cash at home because there is no bank or post office branch nearby.

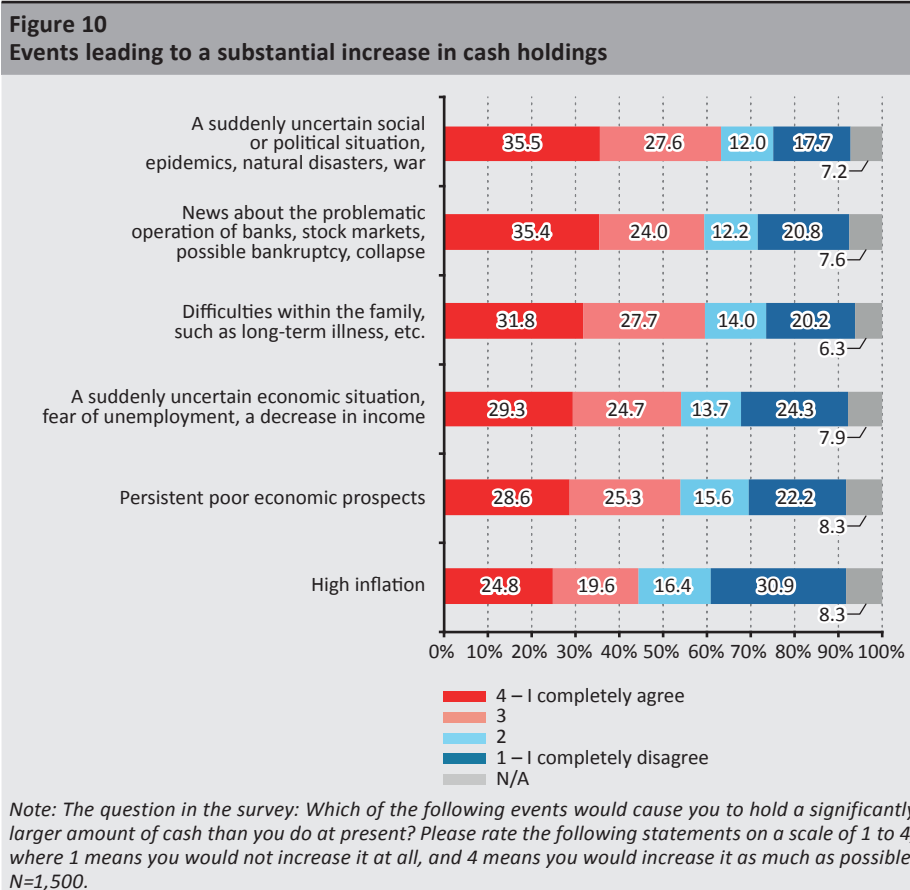
**Figure 9**  
**Reasons for keeping cash**



*Note: The question in the survey: Please rate the following statements on a scale of 1 to 4, where 1 means you completely disagree and 4 means you completely agree. N=1,500.*

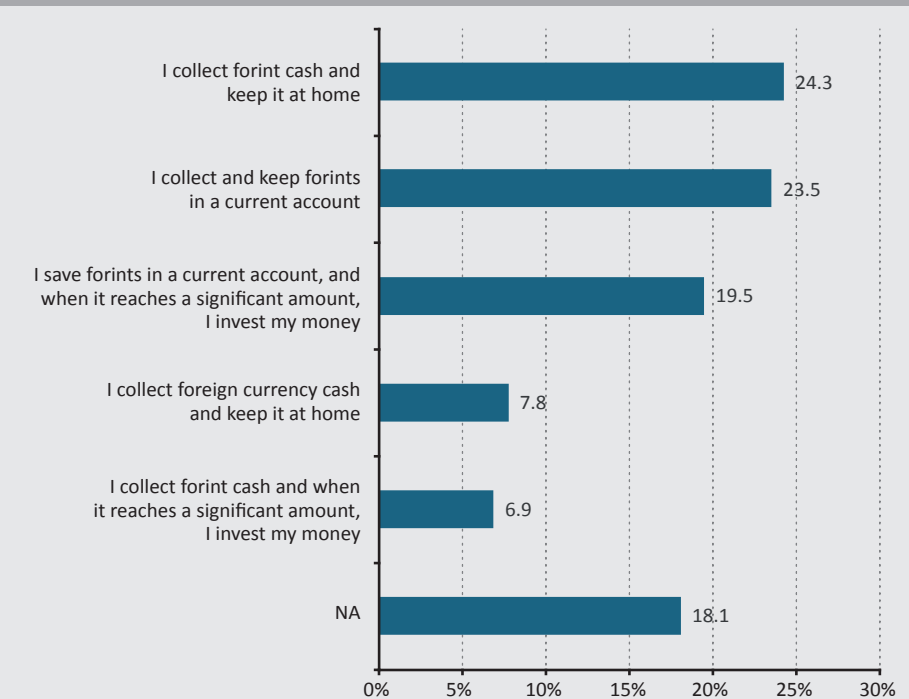
In the focus group interviews, it also became clear that when determining the levels of the savings needs pyramid, the lowest level – the safety reserve – expands in the event of increased uncertainty, either by topping up from income or by reallocating from other levels. Increased uncertainty can arise in the event of any economic, financial or health-related problems. Our questionnaire survey confirmed that, in the event of increased uncertainty, the majority of households would opt to increase their cash holdings (Figure 10). The adult population would be most likely to increase their cash holdings in the event of a sudden deterioration in the social or political situation, epidemics, natural disasters or armed conflicts; in such cases, 63.1 per cent of the adult population would increase their cash holdings to some extent.

Surprisingly, 44.4 per cent of the adult population stated that they would increase their cash reserves even in the event of high inflation. This seemingly profoundly irrational decision is presumably due to the fact that high inflation also increases uncertainty, owing to the greater standard deviation caused by a high inflation trajectory, the volatility of relative prices and the increasing unpredictability of economic policy (Ball – Cecchetti 1990).



The questionnaire survey also included an examination of the accumulation process. The most common forms of saving are keeping cash and accumulating funds in a current account without a fixed-term deposit. These are used by 24.3 per cent and 23.5 per cent of households, respectively. 19.5 per cent of households save for investment purposes in a current account, 6.9 per cent in cash, and 7.8 per cent keep foreign currency at home (Figure 11).

**Figure 11**  
**Savings techniques**



*Note: The question in the survey: How do you usually save? Please select the option that best describes you from the following. N=1,500*

### 3.2. Evaluation of results

#### 3.2.1. Forms of accumulation and their allocation

The focus group discussions confirmed that the primary goal in the accumulation process is to build up a safety reserve, with any amounts exceeding this being referred to as savings. Investment takes place when a larger sum has been accumulated from savings and consumption goals have already been met. Attitudes also vary across these categories: while the aim of a safety reserve is to enhance personal security and reduce anxiety and fear regarding potential unexpected events, with savings, goals and feelings aimed at increasing welfare take precedence.

The aim of investment is clearly to secure supplementary income over the longer term.

Within the categories of accumulation, cash clearly plays the most important role in building up a safety reserve, and the focus group participants agreed that a certain portion of the safety reserve should be kept at home in cash. Keeping cash at home can also play a role in saving through mental accounting.

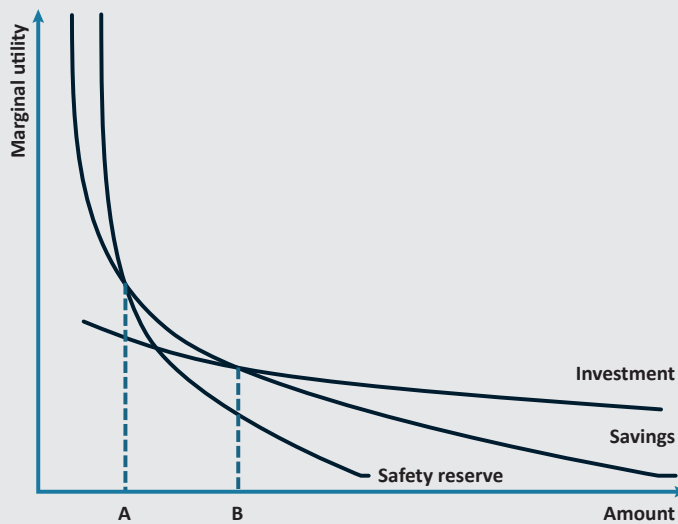
Focus group participants mentioned on several occasions that the safety reserve is a clearly definable, specific amount for them, which they must have at their disposal; however, this also represents the upper limit of the safety reserve, which is only adjusted in the event of changes in internal and external circumstances. Savings, on the other hand, are characterised by regular accumulation and the continuous growth of money set aside; thus, there is no upper limit, and the larger the amount, the greater the individual's satisfaction. Based on the focus groups, emotional attitudes also vary across the accumulation categories; people feel the strongest emotional attachment to the safety reserve, and as they move up the hierarchy of needs, the intensity of their emotions decreases, and they become emotionally more detached from the higher categories. Risk tolerance is lowest in the case of the safety reserve. The need for liquidity and immediate, unhindered access overrides any potentially attractive yield offers that would involve the funds being tied up. When it comes to savings, the majority of participants expect a combination of low risk and stability of value. In the case of savings, the concept of security is re-evaluated and focuses on the individual's desire to know that their money is safe.

The questionnaire survey also confirms that respondents follow different savings strategies. 48 per cent of those with savings accumulate funds in liquid form and did not mention wanting to tie them up, while 38 per cent plan to tie up the funds after accumulating them in liquid form. This is linked to the time horizon over which the savings are planned.

According to common stereotypes, a lack of financial education prevents the majority of people from making more informed use of their savings, which is likely to be true in many cases. However, the research also reveals a more nuanced situation, in which, thanks to its quick and easy accessibility, money held in liquid form offers individuals such utility that they are willing to forego any potential extra income. The importance of this was particularly emphasised in the focus group interviews by respondents who, by their own admission, do not distinguish between savings and a safety reserve, as their savings opportunities are limited due to their low income. Based on the transcripts of the focus group interviews, participants treat the amounts corresponding to the levels of the savings needs pyramid as distinct goods, with an additional unit of accumulation in each category

increasing their utility to different extents. *Figure 12* illustrates how the amounts of money belonging to the accumulation categories treated as distinct goods may evolve based on an individual's preferences. At low levels of accumulation, the marginal utility of the safety reserve is highest; up to amount *A*, topping up the safety reserve yields the greatest increase in utility for the individual; at amount *A*, the individual already feels existentially secure and increasing their welfare comes to the forefront of their thinking. Between amounts *A* and *B*, the marginal utility of savings is highest; at this point, savings are topped up until immediate welfare goals are met. Once amount *B* is exceeded, they identify sums that can be considered "currently unnecessary", which can be invested and from which financial gain is expected.

**Figure 12**  
Formation of accumulation category levels

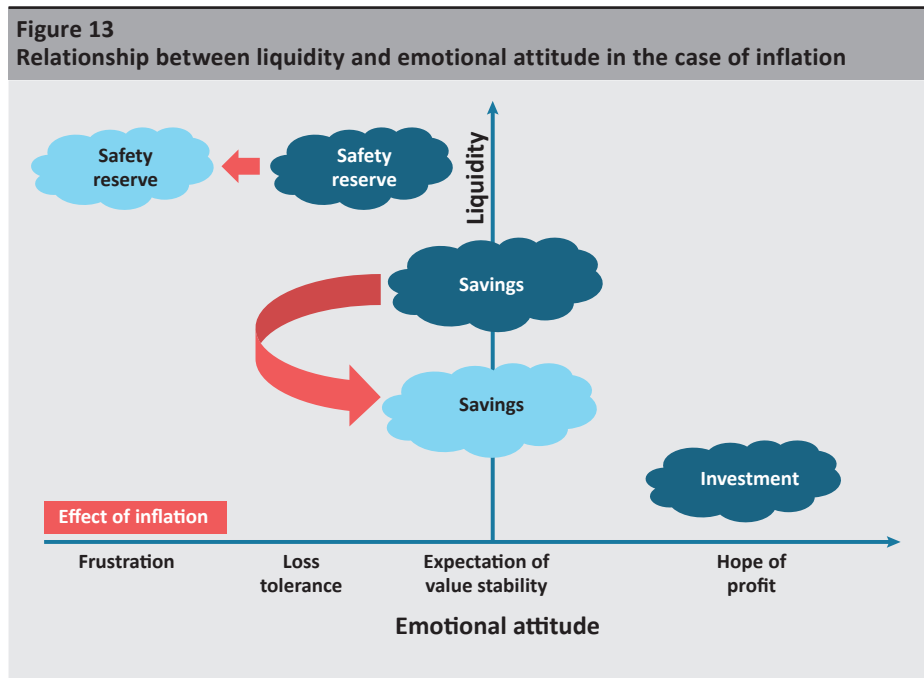


### 3.2.2. Recategorisation of accumulation

Examining the relationship between liquidity and emotional attitudes, individuals are willing to tolerate the loss associated with keeping their money in a current account or as cash without any restrictions, in exchange for high liquidity in the case of a safety reserve. In the case of savings, they seek the optimal combination of stability of value and liquidity, while in the case of investment, the expectation of high yields compensates for low liquidity.

If inflation rises, individuals are willing to sacrifice a further portion of liquidity in their savings in order to gain stability of value. By contrast, when it comes to

their safety reserve, they do not compromise on their high liquidity requirements. Indeed, in an uncertain environment, they even increase its nominal amount, which causes them frustration as their money is worth less and less (Figure 13).

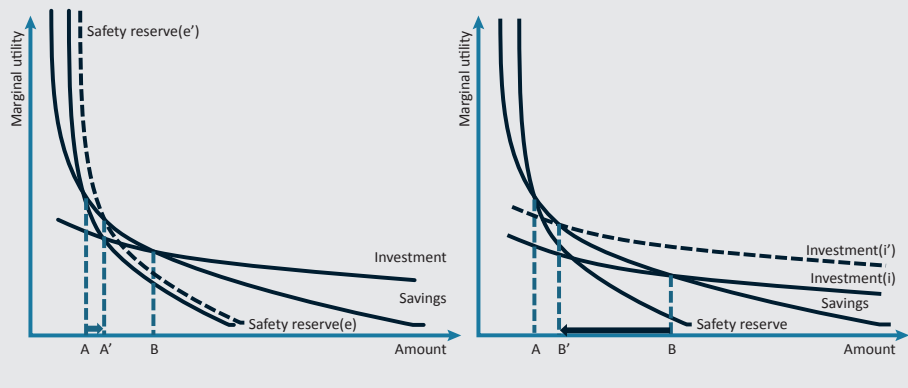


Uncertainty, distrust, rising stress and the perception that the pool of information is becoming more limited lead to simplified, and in some cases sub-optimal, decisions. Tension is alleviated and decisions are made through the use of appropriate narratives (“we have always done it this way”, “what I have is what I can be sure of”, etc.) and, alongside this, the pursuit of liquidity. The mechanism of mental accounting differs somewhat from this, as this technique is primarily used to enhance self-control; apart from family traditions, low income can be a strong incentive for its use. Due to these mechanisms of action, it is possible that situations of limited choice or scarcity – whether of time, income or information – tend to drive an increase in control and the accumulation of liquidity, thereby increasing an individual’s cash holdings, generally through the expansion of the safety reserve.

The process of re-categorising forms of accumulation can also be understood using the theory of marginal utility (Figure 14, left-hand panel). An increase in uncertainty ( $e < e'$ ) makes the safety reserve more valuable. The marginal utility function shifts upwards, causing its optimal level to rise to  $A'$  ( $A' - A$ ) by reallocating savings to the safety reserve, and in parallel with this, savings decrease to  $(B - A')$ , while the level

of investment remains unchanged. However, in the event of extreme uncertainty, some of the investment may even be reallocated.

**Figure 14**  
Changes in the marginal utility of the safety reserve in the event of increased uncertainty (left) and rising yields (right)



Similarly, a reallocation occurs at the expense of savings when yields rise ( $i < i'$ ) (Figure 14, right-hand panel). As the yield rises, investment becomes more valuable, its marginal utility shifts upwards, the optimal level of savings falls to  $B'$ , and the amount of investment increases by the value  $(B - B')$ . The level of the safety reserve does not change.

#### 4. Conclusion

Between 2022 and 2025, cash holdings in Hungary increased despite the unfavourable macroeconomic environment and declining transaction-related demand for cash. Between 2022 and 2023, during a period of rising inflation, the value of cash in circulation fell, but the extent of the decline was less than the drop in cash holdings in current accounts. However, as inflation moderated, a correction, or “replenishment”, of cash holdings became apparent. Thus, at the end of June 2025, the amount of cash in circulation was 18.4 per cent higher than the figure recorded on 31 December 2021. All of this suggests that cash holdings for accumulation purposes dominated the trend in cash holdings during the period.

Based on the focus group interviews, we concluded that households organise their savings into a hierarchical structure based on their future needs. In this context, a savings needs pyramid emerged, similar to Maslow’s hierarchy of needs, with the safety reserve at its lowest level. The main purpose of this reserve is to ensure the individual’s existential security and alleviate their anxiety. At least part of the

safety reserve is held in cash, as its liquidity is of paramount importance. Based on the results of the questionnaire survey, this accumulation category is present in the case of over 80 per cent of households.

The next level of the savings needs pyramid is savings, which serve to achieve some form of future well-being or goal. Compared to the safety reserve, the stability of value of savings is more pronounced. Cash plays a role in this category because of perceived banking costs and as a means of reducing distrust. Moreover, cash simplifies the accumulation process, as mental accounting is one of the most straightforward tools for strengthening self-control. At the top of the pyramid are investments, where cash is of no significance.

The amounts allocated to each level depend on external circumstances and the individual's life situation and personality, but it can generally be stated that increasing uncertainty and declining trust in the institutional system lead to an increase in the amount of the safety reserve, even through the "reclassification" of savings. Due to the pursuit of stability of value, rising yields lead to the conversion of savings into investments, but this has no effect on the level of the safety reserve. Another research question arises: given that the liquidity of current accounts is as high as that of cash, to what extent is the development of their stock influenced by the consumer attitude of seeking to accumulate a safety margin, which is an attitude also identified in relation to cash. Namely, whether it can be demonstrated that households specifically set aside a certain amount in their current account as a safety reserve for precautionary purposes, even though they are aware of the loss of interest incurred as a result. A further question that may arise is whether a difference in perception and attitude between the liquidity of cash and current account deposits can be verified.

The results of our survey confirm that individuals are aware that inflation causes their safety reserves to lose value, but an internal compulsion for liquidity prevents them from tying up these sums, while the loss of value causes some frustration. The inelasticity of safety reserves was confirmed by the questionnaire survey, as the vast majority of households believe it is wise to keep cash at home in case of unexpected events. Therefore, Hungarian households' accumulation of cash is not simply a "lack of financial knowledge" but a response perceived as rational to uncertainty, distrust and a heightened need for liquidity.

The mobilisation of funds held as a safety reserve towards investment can be achieved by strengthening institutional trust and reducing economic and social uncertainty.

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