

# The Recent History of Hungarian Monetary Policy and Future Challenges for Central Banks\*

András Balogh  – Zsolt Kuti  – Annamária Sipos-Madarász 

*The role of central banks in shaping economic processes has been a key issue since their existence. This has typically always been related to the challenges faced by monetary policy decision makers at the time, and from the 2000s onwards even more so in the decade in question. In our essay, we focus primarily on the challenges facing Hungarian monetary policy, briefly outlining the developments in the past decades and elaborating on the challenges ahead. In the longer term, as a small, open economy, Hungary must respond to the prevailing and often interconnected international megatrends of the decade, assessing which of these developments represent challenges and which of these provide opportunities for the Magyar Nemzeti Bank to solve the challenges. In an era of geopolitical change, the green transition, demographic change, high debt levels and digitalisation, one thing is certain: central banks cannot lose sight of their primary objective of ensuring price stability.*

**Journal of Economic Literature (JEL) codes:** E31, E43, E52

**Keywords:** monetary policy, interest rate cutting cycle, price stability, inflation, financial stability, megatrends, geopolitics, green transition, demography, competitiveness

## 1. Introduction

*Since the first central banks appeared (in the 17th century), economists have been concerned with the question of the role of monetary policy in shaping economic processes and achieving related goals (Tatay 2015). To summarise the theories broadly, the function of central banks was initially limited to issuing banknotes and conducting banking transactions, but as economic processes intensified, the range of tasks and objectives expanded. At the beginning of the 20th century, Keynes concluded that the only goal of monetary policy could be to steer the economy towards a state of full employment by setting interest rates (Dickens 2011). With the advance of monetarism in the 1970s, the theory already prevailed that because*

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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.

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inflation was a monetary phenomenon, the central bank could control inflation by controlling money supply (*Friedman 1968*).

*In the early 1990s, the forward-looking, expectation-based behaviour of financial markets led central banks to recognise that a rule-based strategy would give them a better chance of achieving their objectives, and thus inflation targeting (IT) came to the fore. Svensson (1997) argues that the IT regime reduces the volatility of inflation and, if the system is sufficiently flexible, it can even support output stabilisation. As a result of the 2008 crisis, the role of central banks has been redefined: central banks have recognised that, in addition to keeping price stability as a primary objective and the promotion of growth in mind, financial stability considerations must also be taken into account in monetary policy decisions (Ábel et al. 2014).*

*The 2010s and 2020s have also brought new challenges for central banks, and the signs of future challenges are already visible. In the centenary year of the Magyar Nemzeti Bank (the central bank of Hungary, MNB), it may be worth pausing for a moment to reflect on the challenges that the central bank may face, if not in the next 100 years, then looking ahead, as these may fundamentally change the role of monetary policy. This essay examines these issues with a Hungarian focus, briefly touching on the challenges of the recent past and presenting the challenges of the next decade for the central bank.*

*As a small, open country, the room for manoeuvre of Hungarian monetary policy is fundamentally influenced by international developments. Therefore, the analysis also focuses on international megatrends, in particular issues related to high levels of public debt, geopolitical tensions, the green transition of economies, digitalisation and demographic challenges.*

## **2. The 2010s: a time of low interest rates and price stability**

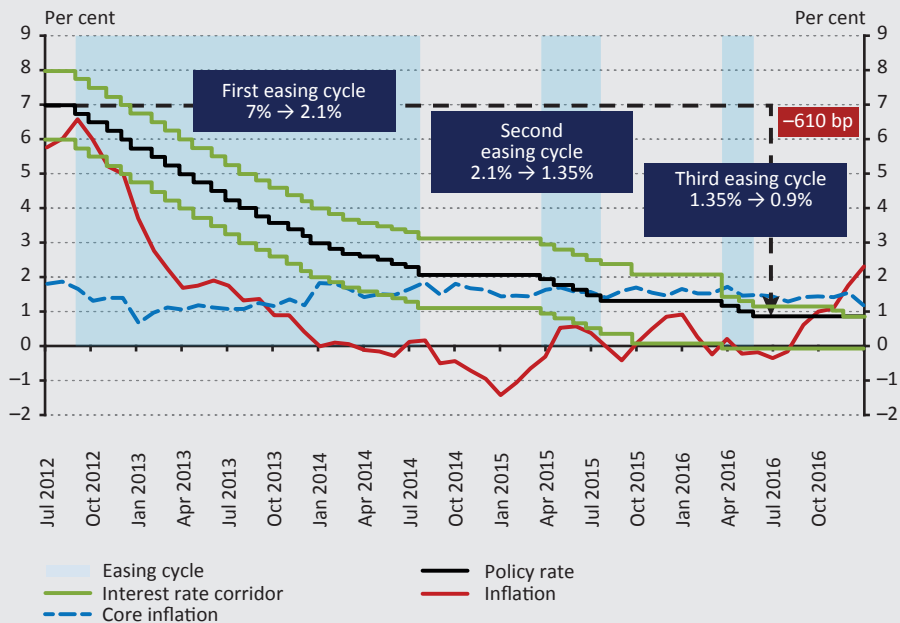
*Hungary entered the decade of 2010 carrying a heavy burden of consequences from the 2008 global financial crisis, with all its country-specific elements. The crisis placed Hungary among the world's riskiest economies, put severe constraints on the market financing of public debt, while developments in macroeconomic indicators highlighted the structural problems in the economy. Consequently, neither balance nor growth could be achieved in the Hungarian economy (*Matolcsy 2020*). It was under these circumstances that an economic policy turnaround had to be implemented from the beginning of the decade, accompanied by a monetary policy turnaround from 2013 onwards.*

### **2.1. The interest rate cutting cycle of the 2010s**

*Thanks to the economic policy turnaround, a sustained loose international interest rate environment and moderating underlying inflation, the gradual improvement in the country's risk assessment made it possible for the central bank to lower*

interest rates by the summer of 2012 (Figure 1). At the start of the interest rate cutting cycle, the MNB lowered the base rate from an initial 7 per cent to 4 per cent by July 2013. The higher-than-target inflation at the beginning of the period was mostly due to one-off, transitory effects, which, as they faded out from the end of 2012, made the central bank face the challenge of a strong disinflationary process that kept inflation below the target of 3 per cent from the beginning of 2013. In the second half of the first phase, the strong disinflationary environment made it possible to continue monetary easing, while the stimulation of economic growth made it necessary, and thus the base rate continued to be lowered to 2.1 per cent until July 2014. The second interest rate cutting cycle from March 2015 was justified by underlying inflation rates falling below levels consistent with the price stability target, inflation expectations stabilising below the target and a persistent negative output gap. Achieving the inflation target in a sustainable manner required a further interest rate cut in the spring of 2016 in the third cycle, and the base rate was reduced to 0.9 per cent, the lowest level in the central bank's history. In this cycle, the central bank made the interest rate corridor asymmetric and narrower in several steps, in addition to lowering the base rate (MNB 2019a). The asymmetric interest rate corridor supported the use of the main policy instrument and thus the enforcement of the base rate, i.e. it served to improve monetary transmission.

**Figure 1**  
Interest rate cutting cycles and inflation developments in the 2010s



Source: Based on Figure 3.2 (p. 18) of MNB (2019a), HCSO

## 2.2. Achieving permanent price stability

*The interest rate cutting cycle set the stage for the period between 2017–2020, when the MNB reached its primary objective of ensuring price stability on a sustained basis for the first time since the change of regime.* It was an exceptional result, also by international standards, that between the beginning of 2017 and the end of 2020, average inflation was just around 3 per cent, i.e. in line with the central bank's target, and in 44 out of 48 months of this period inflation was within a tolerance band of  $\pm 1$  per cent around the 3 per cent level (Matolcsy 2022).

*In addition to achieving and steadily maintaining price stability, the monetary policy turnaround also served to fulfil the central bank's other mandates, which included financial stability following the financial crisis.* The MNB also took a number of non-traditional measures, which, together with the interest rate cutting cycle, supported not only the primary mandate of the central bank, but also financial stability and the economic policies of the Government. These include the Funding for Growth Scheme (FGS), which was launched to address the protracted credit crunch and to encourage long-term lending to SMEs, and the Bond Funding for Growth Scheme (BFGS), which aimed to increase liquidity in the corporate bond market, the Self-Financing Programme to support self-financing and strengthen financial sovereignty, the integration of the central bank and financial supervision, the strengthening of macro-prudential policy and the central bank's resolution activities, and the forint conversion of foreign currency loans.

## 3. Return of inflation in the 2020s

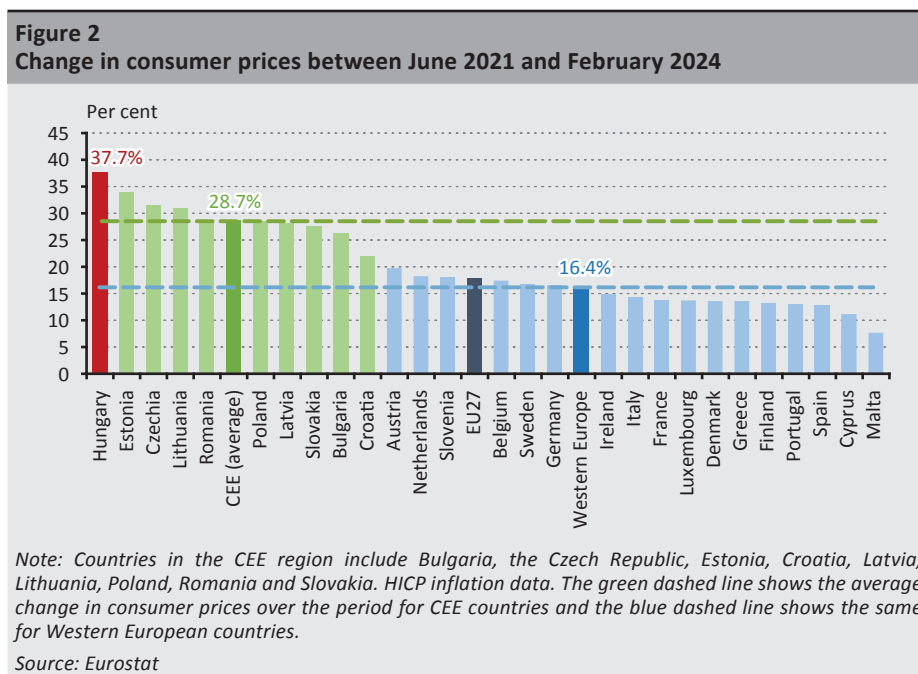
*As we entered the 2020s, the world faced a coronavirus pandemic, with unprecedented health, social and, not least, economic impacts.* To mitigate the negative economic effects and support growth, governments significantly increased their budget deficits, while central banks injected sufficient liquidity into the economies. In Hungary, between 2020 and 2021, economic policy coordination between the MNB and the Government resulted in appropriate crisis management: fiscal policy helped the central bank to efficiently allocate liquidity in the economy. The central bank provided more than HUF 11,000 billion (equivalent to nearly 20 per cent of GDP in 2021) in funding to economic operators until the end of 2021 to help them overcome the economic difficulties caused by the pandemic.

*Hungary was one of the first countries to return to its pre-pandemic economic performance, but the recovery brought new challenges around the world.* Global inflation rose to levels not seen since the 1970s, and fears of a stalled recovery and recession intensified.

### 3.1. The nature of inflation in the 2020s

The challenges of the new decade resulted in inflation around the world starting to rise again after a long period. In the period following the coronavirus crisis, a dual economic process began: the recovery in the economies was followed by a rapid increase in demand, while the fragmented supply side recovered at a much slower pace. Against this backdrop, energy and commodity prices, as well as global food prices, rose sharply in 2021, followed by the outbreak of the Russia-Ukraine war in early 2022, which gave a further boost to price increase for energy and commodities. As a result, inflation rates started to rise strongly and persistently.

The successive waves of inflation in 2021 and 2022 had the strongest impact on the economies of Central and Eastern Europe, and particularly Hungary. Due to the proximity of the Russia-Ukraine war and energy dependence, the Central and Eastern European region was more exposed to a deteriorating external inflation environment. As a result, consumer prices in the region as a whole increased by an average of 28.7 per cent between June 2021 and February 2024 (Figure 2), which was 12.3 percentage points more the price increases in Western European developed countries during the same period. Overall, prices in Hungary rose by 37.7 per cent, more than double the rate in Western Europe.



*In addition to the general inflationary effects in the region, other country-specific factors besides higher energy exposure contributed to higher inflation in Hungary. Food and fuel price hikes accounted for 80 per cent of the rise in domestic price inflation, which was significant compared to the Western European average and also substantial compared to the region. Hungary's productivity in the food industry is the second lowest in the European Union, making the sector more vulnerable to cost shocks, and the contribution of fuel to the inflation surplus increased following the government's lifting of the fuel price cap. Moreover, the lack of competition allowed domestic companies to raise prices much more than their costs, leading to the strongest profit-led inflation in Europe (MNB 2024).*

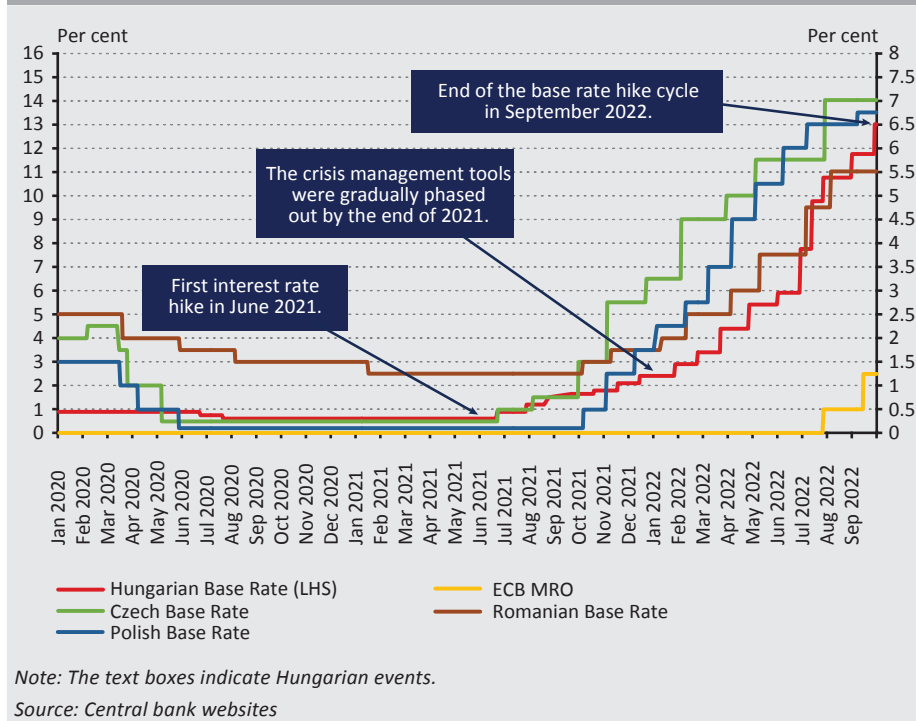
### **3.2. The fight against inflation and successful disinflation**

*The MNB was one of the first to recognise the change in inflation trends and actively communicated this. This is also supported by the results of a study by Nagy Mohácsi et al. (2024), which found that the Hungarian central bank was one of the best worldwide at formulating messages about the re-emergence of inflation.*

*The MNB gave a strong response to the rise in inflation. While some argue (Botos 2023) that the central bank started raising interest rates too late, the facts nevertheless show that the MNB was the first in the European Union to start its rate hike cycle in June 2021 (Figure 3). Tightening by the central bank continued until September 2022, with the base rate increasing by 1,240 basis points over a span of 16 consecutive months. At the September 2022 interest rate meeting, the Monetary Council set the base rate at a level (13 per cent) that adequately addressed the fundamental inflation risks. In parallel with the tightening of interest rate conditions, central bank instruments dealing with the coronavirus crisis were also phased out by the end of 2021.*

*In the early weeks of October 2022, international financial markets experienced an extraordinary deterioration in sentiment, and the MNB took strong action on 14 October to address the need to protect financial market stability. In the weeks following the September interest rate decision, the forint weakened steadily against the euro and the dollar, reaching a historic low; the forint purchases of the domestic sector were increasingly unable to offset the significant rise in foreign speculative holdings against the forint, and euroisation risks intensified substantially (for details, see Kuti 2023). Overall, the forint reached the limit of nonlinear depreciation. Taking into account the risks in the financial markets, the Monetary Council of the central bank significantly raised short-term yields by using two targeted instruments announced on a daily basis, and, in order to preserve the balance in the foreign exchange market, the MNB temporarily provided the foreign exchange liquidity directly that was required to meet the greater demand for net energy imports.*

**Figure 3**  
Hungarian cycle of interest rate hikes and interest rate hikes by the ECB and central banks in the region



By taking these exceptional measures, the MNB was able to stabilise domestic financial markets, buying time for economic policy to rebalance. By taking targeted measures, the central bank successfully ensured the stability of financial markets, which is both a necessary condition for the functioning of the economy and a necessary condition for achieving sustainable price stability.

Learning from the patterns of economic history, the MNB took a cautious approach and maintained tight monetary conditions over a sustained period, thus succeeding in curbing inflation. From its peak of 25.7 per cent in January 2023, Hungarian inflation dropped back to the central bank's tolerance band by 2024 Q1, making Hungary the country with the largest decline in inflation in the EU in 2023, which is a significant achievement by historical standards (MNB 2023a).

#### 4. Maintaining price stability as a challenge for the near future

The first major monetary policy challenge for the near future will be to maintain price stability. The MNB may be able to achieve its 3-per cent target in a sustainable manner during 2025. At the same time, geopolitical tensions, as well as new

disruptions in commodity and energy markets and global supply chains are creating risks to financial market stability and disinflation, not only in Hungary but also around the world. Given the risky environment, a disciplined, cautious and data-driven approach will guide central bank strategies in the period ahead.

*Keeping inflation expectations anchored remains key.* This requires central banks to use their extensive data and information base to continuously monitor the spillover effects of their actions into the real economy and the development of inflation expectations of economic actors. While monitoring the interest rate and inflation expectations of financial market participants is an obvious task for central banks through the evaluation of market prices and analysts' opinions, the inflation expectations of companies as price-setters and households as consumers can be mapped through questionnaires and sometimes through sectoral information. Companies, whose pricing practices play a key role in inflation developments, base their inflation expectations on price dynamics in their supply chains and industry information, rather than on current monetary policy or the expected evolution of the consumer price index (Coibion et al. 2018; Albagli et al. 2022). Some evidence suggests that actors in the household sector place a high weight on observed past price changes in formulating their inflation expectations, overweighting price increases and attaching particular importance to food price changes (D'Acunto et al. 2021). The latter result is particularly important in the Hungarian context, as food is a particularly large component in the Hungarian consumer basket compared to the EU (Bareith – Fertő 2023). In the context of the above, anchoring expectations also requires central banks to identify anomalies in corporate pricing, especially when they are found in key sectors such as the food industry. According to MNB calculations, between 2019 and 2022, net operating cost and mixed income in the food industry in Hungary showed the fourth highest growth in the EU, at nearly 65 per cent, while the top performer France recorded increases of nearly 250 per cent and Bulgaria 200 per cent, respectively (MNB 2024). These results indicate a much higher increase in corporate prices than cost increases in the sector. Inflation of price-profit origin can be a major impediment to anchoring inflation expectations to the inflation target through perceived price dynamics that are higher than fundamentally justified. In addition to presenting these processes to the public, central banks can make proposals to stimulate sectoral competition and work together with competition authorities to support pricing that better reflects real economic fundamentals, while anchoring expectations to inflation targets.

*Particular attention should also be paid to inflation items that are mainly shaped by domestic pricing mechanisms, such as market services inflation.* The disinflation occurring at the global level is clear, but price dynamics in the services sector are slowing down this process for several reasons: the higher degree of labour intensity of the sector means that wage dynamics are more dominant in pricing



than in more capital-intensive sectors, and accordingly the deceleration in price dynamics may be more moderate and protracted. It is important to highlight that the inherently more persistent services inflation is now proving to be more durable internationally compared to previous periods of high inflation, partly due to the evolution of demand for goods and services and their relative prices during and after the coronavirus crisis, and partly due to lower exposure to the energy market, as a consequence of which, falling energy prices are not contributing to services disinflation (Amatyakul et al. 2024). However, this also means that, compared to the past, price developments in the services sector are an increasingly strong driver of the incoming inflation data. Alongside slowing disinflation, these developments may justify a more sustained restrictive monetary stance worldwide in order to achieve and maintain price stability.

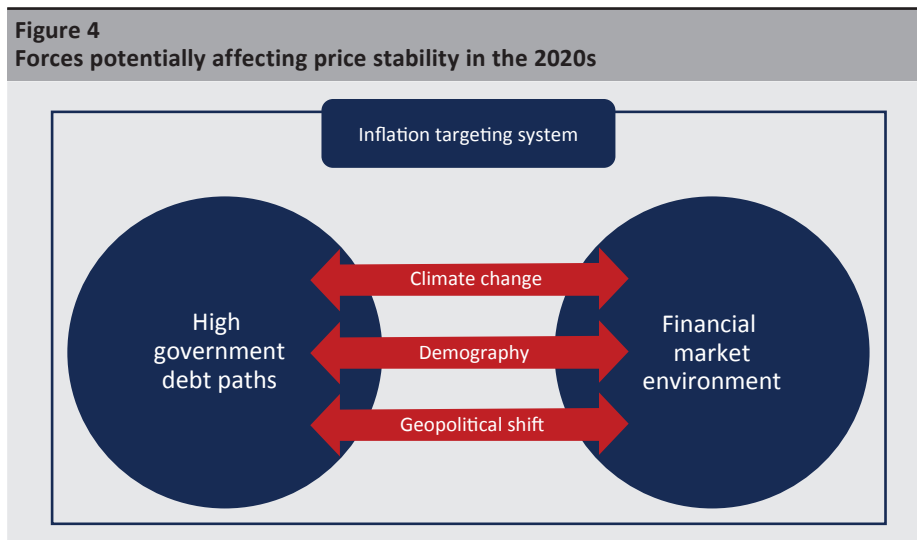
*Financial market stability should also remain a priority in the MNB's monetary policy.* Indeed, as a small, open economy, increasing geopolitical tensions, possible new energy shocks, news of tighter future interest rate policies by major central banks or deteriorating risk assessments due to other factors could threaten price stability from the financial market side. This is a particularly important aspect, since, compared to the 2010s, in the early 2020s the central bank estimated that a 1-per cent weakening of the exchange rate could have a double inflationary impact, i.e. the inflationary impact of the exchange rate in Hungary has increased (Balatoni – Soós 2023). Although exchange rate developments are influenced by many factors other than monetary policy, if a central bank pursues a predictable, credible monetary policy, it can contribute to the stability of the financial market environment, thus reducing the risk of exchange rate volatility and the resulting price effects from uncertainty. The relatively large size of Hungarian financial markets further increases the importance of financial market stability considerations: in 2022, the daily turnover of foreign exchange instruments as a share of annual GDP averaged nearly 15 per cent in Hungary, nearly 10 per cent in the Czech Republic, nearly 8 per cent in Poland and 3 per cent in Romania.

## **5. Medium-term challenges: megatrends affecting central bank policies**

*Looking ahead, like all others, central banks must face up to the medium- and long-term developments that require a transformation of the economic structure, which may also pose challenges in the maintenance of price stability.* It is important to underline that these challenges also offer development opportunities for economies to become more competitive, flexible and resilient. On the central bank side, while price stability is a priority, today's monetary policy frameworks provide scope for flexible adjustment (Gillitzer – Simon 2015).

*A focus on the price stability objective of central banks highlights the monetary policy-relevant structural effects that most central banks must anticipate during the decade: high public debt ratios and the likely further increase in fiscal pressures stemming from various structural factors, geopolitical tensions, the green transition, aging societies and, in parallel, a declining working-age population will all challenge the monetary policies of central banks.*

*For an inflation targeting, independent central bank, one important feature of the operating environment is the current and expected fiscal policy stance and, especially in small open economies, the evolution of the financial market environment. In this context, climate change, demographic challenges and the current shift towards a bipolar world order all have a lasting impact on these characteristics: they imply potential fiscal pressures in the future and create persistent uncertainty and increased volatility in financial markets. In such a situation, the independent central bank must be both inward and outward looking, because while a different fiscal stance than monetary policy can lead to a conflict of interest between economic policy branches and can also affect inflation expectations, an uncertain financial market environment in an open economy can cause disturbances in the flow of capital, which can also affect inflation through exchange rate developments (Figure 4).*

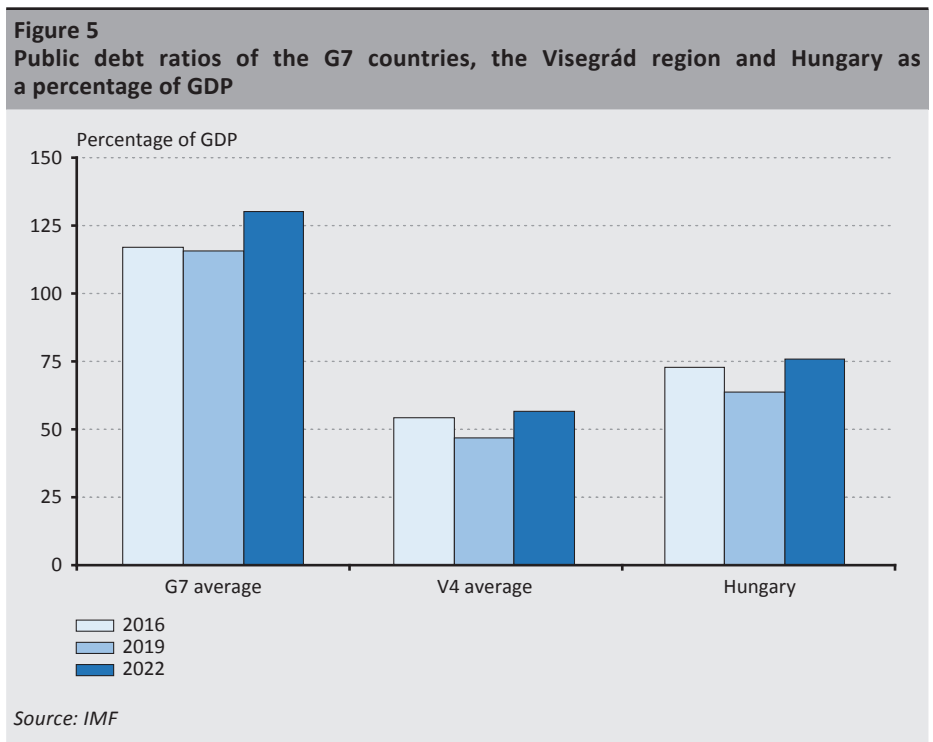


*In the next section of this paper, we examine the central bank dimensions of these forces, and since these effects are broadly global, moving away from the domestic focus, we assess these developments from a general monetary policy perspective. However, where a distinction is justified, we also refer to the challenges that a given process poses for a central bank in a small, open economy.*

### 5.1. The problem of high debt – monetary policy with shrinking fiscal space

In the coming years, the fiscal space is expected to be determined by high and only slowly declining public debt ratios. Globally, one of the main causes of the slow decline in the high debt ratios is the lingering effects of the coronavirus crisis, as it is in the case of the causes of elevated inflation. The extraordinary crisis was followed by decisive action around the world, with central banks and governments working together to channel huge amounts of liquidity into the real economy. A rapid recovery of the global economy did take place, but we were then faced with post-Covid symptoms like enormously high inflation developments resembling the 1970s along with high and fiscal space-constricting public debt ratios. The inflationary symptom has been easing steadily thanks to firm central bank actions, but resolving the debt problem seems to be a protracted challenge.

The coronavirus crisis slowed the reduction of high debt levels (Figure 5). Between 2019 and 2022, the debt ratios of advanced economies rose from 104 to 113 per cent of GDP, while those of emerging economies from 55 to 65 per cent (Brandao-Marques et al. 2023).



*Higher debt levels are also accompanied by a subdued macroeconomic outlook, while the megatrends of our times may be putting increasing pressure on budgets. Weak productivity, demographic trends, low investment activity and the after-effects of the coronavirus crisis are all slowing debt reduction (Adrian et al. 2024). Among these, demographic trends pose a significant threat, including the fact that the sustainability of pension systems may become uncertain in the future. In addition, from a budgetary point of view, the fiscal space in the future may be limited by the endeavour to mitigate the effects of climate change and to achieve a green transition to ensure the long-term management of such effects. The social, economic and trading consequences of geopolitical tensions will certainly add to the budgetary challenges, to varying degrees depending on the geographical location. The OECD calculates that, based on the median projection for the G7 countries, the net public debt ratio may increase by around 70 percentage points by 2040. The OECD's further findings suggest that for a median OECD country, an annual increase in fiscal revenues of 3.5 percentage points of GDP would be required by 2040 to keep the debt ratio below the level expected by 2025. In the light of these findings, the OECD calls for action, stressing the need for labour market, health and pension reforms to alleviate growing fiscal pressures, with a particular focus on demographic trends (OECD 2023).*

*The need to put public debt on a credible, sustainable path is also of paramount importance for price stability, especially for emerging market economies (Adrian et al. 2024; Afrouzi et al. 2024; Brandao-Marques et al. 2023; Wyplosz 2023). Loose fiscal policy can also be directly inflationary and raise long-term inflation expectations. The literature suggests that there is a not too strong, but positive relationship between the changes in cyclically adjusted primary balance in the previous year and inflation in the given year (Wyplosz 2023). Another important result is that long-term inflation expectations 5 years ahead grow significantly following a surprise increase in the debt ratio of 10 percentage points, especially in emerging countries, and also for economies with high initial debt levels and those not having an inflation target (Brandao-Marques et al. 2023).*

*While maintaining a higher interest rate environment in order to curb inflation may lead to a short-term conflict between central banks and governments in a period of subdued growth, in the longer term, sustainable growth cannot be achieved without price stability. Fiscal consolidation is easier to implement under supportive financial conditions, but its credible implementation in itself contributes to a faster emergence of a lower interest rate environment (Adrian et al. 2024). In addition, "growing out" of debt may also be a good recipe for tackling the debt problem, so it is important to stress that competitiveness reforms help future growth (Adrian et al. 2024). But credibility is important: credible government commitment can*

reassure economic actors that fiscal consolidation will not divert resources from future productivity-enhancing measures (OECD 2023).

## **5.2. Challenges for central banks in a world that is becoming bipolar**

*These are times with geopolitical tensions:* while trade restrictions between the US and China were the leading news in the late 2010s, following the coronavirus crisis, the Russia-Ukraine war and the outbreak or potential for further conflicts from 2022 onwards have increased uncertainty worldwide.

*Instead of a global economic and political order based on cooperation, an East-West dichotomy is emerging.* These tensions may partly reverse the process of globalisation: the disruption of supply chains and uncertainty reinforce the process of protectionism and regional integration. Restructuring supply chains, or shortening them where necessary, may be a solution, but it is a time-consuming and costly process (Halmai 2023). As an extreme option, a policy of isolation, i.e. protectionism, could be taken into considerations, but in a given market that was previously competitive and partly or wholly an importer, this could lead to a reduction of competition as a result of various tariff- and non-tariff-like restrictive instruments. Overall, supply chain disruptions and the elimination of this fragmentation may lead to higher inflation for different reasons, and thus central banks cannot ignore these developments.

*In addition to the effects of disruptive supply chains, the financial market consequences of geopolitical tensions may also pose inflationary risks.* In a tense environment, the vulnerability of small, open economies may increase in financial markets: geographical proximity to conflicts, belonging to the same group of countries as the country under tension or greater exposure to supply chain fragmentation can easily trigger capital outflows through a deterioration in risk assessment, which can impede the achievement or endanger the maintenance of price stability through a significant depreciation of the exchange rate, which can also increase inflation. Central banks in these countries should therefore pay particular attention to preserving financial market stability (Nguyen-Huu – Örsal 2023).

## **5.3. The impact of climate change and green transition on price stability**

*We are facing the adverse effects of climate change more and more every day, but the green transition also brings risks.* We are experiencing rising average temperatures, unpredictable weather conditions, mild winters and hot summers, and increasingly frequent natural disasters (Bacchiocchi et al. 2024). Further escalation of the effects already seen and the intensification of the physical risks of climate change can be curbed by the green transition process. At the same time, the transformation of existing social, economic and financial structures in accordance

with sustainability principles also entails costs, and the risks associated with such are called transition risks (Kiss – Raciborski 2024; Reboredo – Ugolini 2022).

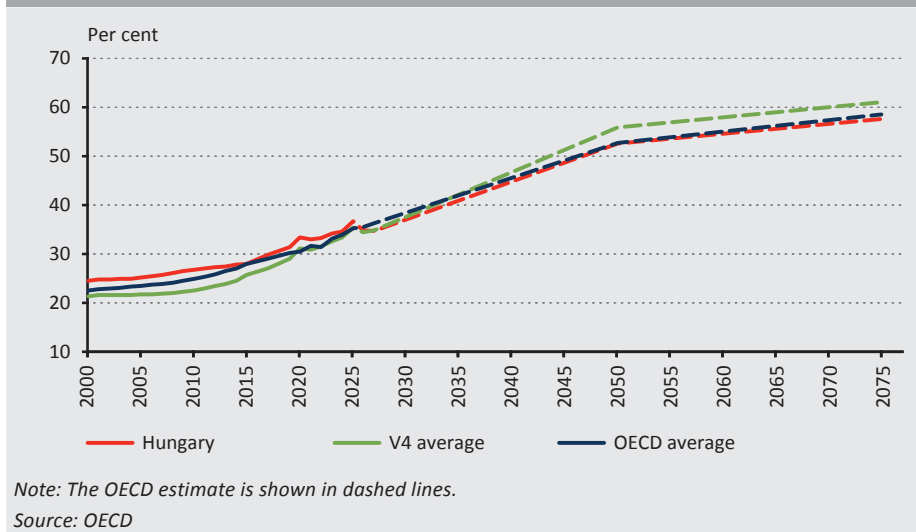
*Viewed through the lens of the central bank, the key issue is the optimal level of central bank involvement in promoting the green transition.* It is important to be aware of the fact that both climate change and the green transition can increase inflation (Kolozsi et al. 2022). Droughts and the proliferation of natural disasters make it difficult to maintain price stability due to higher agricultural prices and disruptions to supply chains. At the same time, the green transition is changing structures, so that the supply-demand balance and the market for products and solutions that promote sustainability can often be characterised by over-demand or, during the transition, by shortages in supply. Although the mechanisms of action are more difficult to specify in this case, it is clear that the transition also carries the potential of increasing inflation.

*One thing is for certain: action is needed, but the institutional division of responsibilities and work is still evolving* (Kolozsi et al. 2022). If a central bank were to opt out of promoting the green transition, it would also have to accept that it would have to navigate in an extremely volatile world, with potentially high inflation, while striving to protect price stability. On the other hand, by taking part in the fight against climate change, for example by supporting the greening of the financial system, perhaps through targeted lending programmes, it is helping to make the transition faster and smoother. One alternative could be to incorporate green aspects into the set of mandates of the central bank, but the extension of the set of mandates inherently carries the potential of conflict among objectives. However, the latter challenge can be mitigated by a clear prioritisation of objectives and credible and transparent communication from the central bank. The potential role of the central bank in the green transition is discussed in more detail in Section 6.

#### **5.4. Uncertain inflationary impacts of demographic challenges**

*The problem of an aging society is a very important and relatively predictable challenge for policymakers:* fertility rates are declining, while life expectancy is increasing (Broniatowska 2019). Looking ahead, the share of the elderly population in the total population is steadily increasing, while the share of the working-age population is decreasing. This can be seen in the evolution of the percentage of the population aged 65 and over to the working-age population, i.e. the old-age dependency rate: the average old-age dependency rate in OECD countries may rise from 33.9 per cent to 52.7 per cent by 2050 and 58.6 per cent by 2075 (Figure 6).

**Figure 6**  
Trends in the old-age dependency rate in Hungary, the Visegrád region and OECD countries



Demographic trends pose challenges for the future sustainability of pension and health systems. As the working-age population declines, an increasing number of people will receive pensions at the same time, while higher life expectancy as global living standards rise will require a continued expansion of the capacity of health care systems. The challenge of an aging society puts a strain on fiscal policies, further reducing fiscal space.

The monetary policy implications of demographic changes are less clear, with the changing age composition carrying two-way inflation risks. The decline in the working-age population also implies a reduction in labour supply, which may lead to labour shortages and wage increases, which in turn have a pass-through inflationary effect. In turn, working-age people raise their savings in preparation for retirement, and if they are aware of the risks to the future sustainability of pension systems, this increase in savings may be more pronounced than if they do not have this information (Vlieghe 2022). Higher propensity to save means lower inflationary effects overall. The growing elderly population, in turn, is starting to allocate their previous savings to consumption based on traditional life-cycle models, which is

pushing up inflation, especially in a context of narrowing supply due to a shrinking labour force. At the same time, as life expectancy increases, the reduction of savings is more gradual than before, which may imply a more moderate inflationary impact (*Juselius – Takáts 2021*).

*Governments are therefore expected to play an active role in demographic processes, as they have the right tools to do so. Central banks, on the other hand, need to monitor the long-term effects of demography on price stability.*

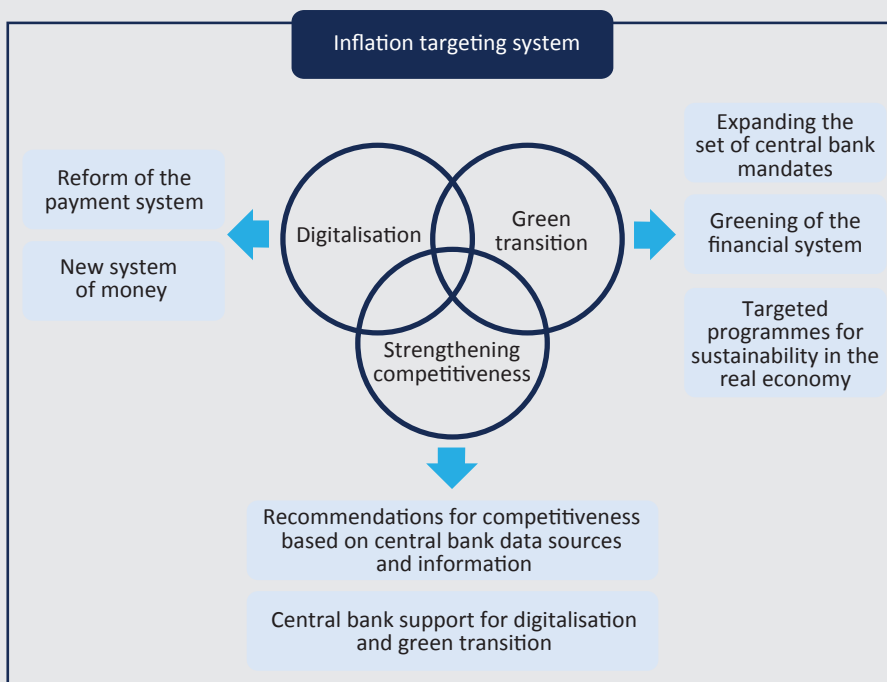
## **6. Monetary policy options to effectively address the challenges of the 2020s**

*These challenges are not independent of each other. As we have seen, demographic trends affect the future sustainability of budgets. Climate change, in addition to calling for government programmes, can result in elevated geopolitical tensions in the wake of commodity shortages or supply chain disruptions, leading to isolated groups of countries and fragmentation of world trade, while also strongly increasing the vulnerability of small, open economies to financial market shocks. However, there are also achievements and opportunities that, when combined, can help address the challenges of the decade.*

*While the inflation targeting system provides a flexible framework to address monetary policy challenges, digitalisation, green transition and strengthening competitiveness can provide interlinked, complementary and mutually reinforcing solutions for central banks, as well as at the macroeconomic level, if well managed. Together, these three factors lead to more efficient – and environmentally sustainable – economic functioning, mitigating the fiscal challenges posed by climate change risks and demographic challenges, and making the economy more resilient in times of turbulence and geopolitical stress. In the next section of this paper, we assess the correct application of these solutions from a central bank perspective, while the inflation targeting system continues to provide the analytical framework (*Figure 7*).*



**Figure 7**  
**Central bank options to respond to the challenges of the 2020s**



### 6.1. A proven recipe: the inflation targeting framework

*The inflation targeting framework has performed well worldwide over the past decades, as it provides a scope for adapting to the challenges of the times. A good example of this is the more flexible inflation targeting after the 2008–2009 crisis, which introduced financial stability considerations into monetary policymaking, alongside the primacy of price stability. An example of flexibility is the  $\pm 1$  percentage point tolerance band around a 3-per cent inflation target in Hungary from 2015 on, which is an effective element of the monetary policy framework. The appropriate use of a flexible framework contributes significantly to the strengthening of the credibility of the central bank.*

*The credibility of the central bank is critical to successfully address the challenges of the future. The effects of monetary policy mainly take shape through influencing inflation expectations. A central bank that has been credible and committed to price stability in the past will conduct a more effective monetary policy in the eyes of the public in the future, as credibility itself is a guarantee for the future.*

*The inflation targeting system has thus performed well, but central bankers need to keep an open mind.* The framework is sufficiently flexible and, if shaped wisely, can be effective in addressing the monetary policy challenges of our time. While the expanding sets of mandates give central banks more room for manoeuvre than in the past, the relationship of the new mandates to the primary price stability objective needs to be kept under review. However, the mandates are not independent from one another: there is no sustainable growth without price stability, while meeting environmental sustainability targets can also lead to more stable price dynamics in the long run.

*The primary role of price stability prevails.* With the expanding set of mandates, central banks may find themselves more often in decision-making situations where compliance with one mandate violates the set of criteria of another mandate. The assessment of these trade-offs is of paramount importance, but as a general principle, if the primary mandate is involved in the dilemma, the decision should always be in favour of price stability. Along these lines, it can be argued that *in the future, preserving the credibility and independence of the central bank will play an increasingly important role in these decision-making situations.*

## **6.2. Options of the central bank to support structural policies, digitalisation and green transition**

*Competitive economies will effectively address the challenges of the decade.* This requires supply-side policies and long-term structural measures. The solution to the global decline in productivity could be a shift from an extensive growth model based on quantity to an intensive growth model based on quality (Matolcsy 2022). In a world of geopolitical tensions and bipolarisation, quality-based growth offers a small, open economy the opportunity to build a capable, strong and crisis-resilient economy. The implementation of appropriate competitiveness reforms can help economies with characteristics similar to those of Hungary to catch up with developed economies in a sustainable way, which will indirectly also contribute to financial market stability through improved risk assessment.

*Central banks can support competitiveness by maintaining price stability, through their set of mandates and by making proposals based on their extensive information and research base.* The Hungarian example in this area is remarkable: the MNB has always been committed to strengthening Hungary's competitiveness and catching up successfully, and has been regularly and comprehensively engaged in competitiveness analysis for almost 10 years. The central bank has made use of its potential to make proposals on several occasions, one of which was the comprehensive 330-point competitiveness programme package presented in 2019 (MNB 2019b), and the MNB also assesses and monitors the development of Hungary's competitiveness position in the annual Competitiveness Report (MNB 2023b).

*Central bank support for the green transition and digitalisation in itself strengthens competitiveness, and reinforcing competitiveness can accelerate and facilitate sustainability and digital transition.* If an economy can successfully make these transitions and become more resilient to the challenges of our times, it can gain a competitive edge over economies that do not take as much advantage of the opportunities.

*On the central bank side, the price stability risks of the green transition need to be understood.* However, in the case of the green transition, the price effects arise from the shifting centres of gravity in a dynamically changing financial system and real economy, whereas the inflationary effects stemming from the physical risks of climate change are the consequences of unpredictable, uncertain and generally uncontrollable events. By contrast, active measures to support the green transition shorten the transition period and thus help to sustainably ensure price stability in the longer term, despite the risks of inflation (Aguila – Wullweber 2024).

*If a central bank decides to actively support the green transition, it can, among other things:* use the inflation targeting system to expand the set of mandates of the central bank in this direction; green the financial system through various regulatory and supervisory instruments; and support investments that enhance environmental sustainability through targeted lending programmes.

*From a monetary policy perspective, from among the options above, the question of extending the set of mandates is of critical importance.* An environmental sustainability mandate will, similarly to the financial stability and real economic objectives, be subordinate to the primary price stability objective in the central bank's targeting framework. This means that a specific, targeted effort in the spirit of these secondary objectives can only be made if it does not endanger price stability. If this is a possibility, the inflation targeter central bank should always opt for price stability. Apart from this, it is true that in flexible monetary policy frameworks, the increase in the number of mandates leads to an increasing number of conflicts of objectives, so that a new mandate may also mean more decision situations and, possibly, reputational risks for a central bank.

*However, the extension of the set of mandates can be implemented with transparent communication and credibility, provided that the credibility of the central bank is proven in the eyes of economic actors and that the central bank can decide as an independent institution on the use of instruments to achieve price stability.* The Hungarian example can also serve as an international benchmark: the MNB had the foresight to take a strong stance by the beginning of the decade and, with its extended set of mandates, laid the foundations for its future role in the implementation of the green turnaround (Lentner – Zsarnóczai 2022). In 2021, the Hungarian central bank became the first in Europe to include green

aspects in its mandates. In addition to maintaining the stability of the financial intermediary system, the MNB has committed to support the government's policy on sustainability without compromising its price stability mandate. Being proactive and acting first can in itself lend credibility to the central bank in the future, both in terms of its overall monetary policy and its sustainability mandate.

*Once price stability is assured, a way is opening for the possibility of meeting secondary targets. These central bank mandates can then help to maintain price stability as well. Overall, supporting the green transition will steer the economy towards a more environmentally sustainable equilibrium, with more stable price dynamics in the longer term after the transition. In the same way, real economic and financial market stability is also conducive to more balanced price developments.*

*The focus of central banks, however, is still on achieving price stability. The fight against inflation is not over yet. Therefore, just like in the past decade when targeted central bank instruments were deployed to support growth, the sustained achievement of price stability will open the door to supporting the green transition through targeted programmes. In the current environment, the optimal strategy is for the central bank to do its utmost to achieve and maintain price stability, while at the same time continuously exploring the possibilities of actively supporting the green transition (Kolozsi et al. 2022).*

*Digitalisation should be seen as an opportunity to increase efficiency. A successful digital transition will make a major contribution to boosting competitiveness, while at the same time significantly supporting the green transition by reducing paper-based solutions. It can also alleviate tensions arising from the shrinking labour supply due to demographic trends through efficiency gains. Both robotisation and the rise of artificial intelligence point towards cost reductions, which could lead to more subdued price dynamics in industrial production, among others (Aldasoro et al. 2024; Acemoglu – Restrepo, 2020). As in all areas of life, we need to rethink what digitalisation can offer us in the field of central bank policies (Mishchenko – Naumenkova 2021).*

*From a central bank perspective, digitalisation offers an opportunity to innovate the payment system and could even be the gateway to the next chapter of the modern monetary system. Based on economic history, the epochal changes in the history of money have typically occurred in the unity of three factors: geopolitical changes, technological transformation and economic development (Balogh et al. 2022). The geopolitical changes are present, as we live in a world that is becoming bipolar; digitalisation fulfils the criterion of technological transformation, and the need for a green transition may correspond to a condition for economic development.*

*Central bank digital currency may mark a new era in the history of money.* Combining the advantages of deposit and cash, it offers a safe and secure payment method for the public, while it can also enhance the efficiency of monetary policy by increasing the interconnectedness between the public and the central bank, which also helps to stimulate competition in commercial banking (Kóczyán 2022). This will lead to an expansion in the choice between different forms of money, as economic actors will be able to use cash, central bank digital currency, and, of course, commercial bank money for payments according to their individual preferences (Kóczyán et al. 2023). So the opportunity is there, and in line with this, more and more central banks are exploring future ways to reform the monetary system.

## **7. Summary**

*In this paper, after presenting the Hungarian monetary policy achievements of the past fifteen years, we outlined the challenges and opportunities that – looking ahead – will shape the central bank’s room for manoeuvre for this decade.* Looking to the future necessarily implies broadening the focus of our analysis, as some of the effects discussed are likely to be generally present in the world. Accordingly, the challenges and opportunities were examined from a general central bank perspective. In each case, the analytical framework was provided by the inflation targeting framework, i.e. our starting point was a central bank whose primary objective is to achieve and maintain price stability. Where differentiation was justified, the challenges and opportunities were examined from the perspective of a central bank in a small, open economy, as in some cases the same effects may require different responses depending on the openness and level of development of the economy.

*We pointed out that while the disinflationary process is still ongoing, the challenge for the near future will be to maintain the price stability achieved.* In this area, a deep understanding of inflation expectations and the nature of inflation by the central bank is of particular importance. We noted that anchoring expectations to the inflation target also involves identifying and disclosing possible pricing anomalies, especially in sectors whose pricing practices have a strong impact on the public’s inflation expectations. The identification of market services as increasingly persistent items in inflation data underlines the need to maintain tighter monetary conditions for a longer period of time in order to achieve the inflation target sustainably. In small, open economies, ensuring financial market stability remains crucial given the volatile international financial market sentiment, as without stable financial market conditions, the inflationary impact of volatile exchange rates also poses a threat to maintaining price stability. Given the relatively large size of Hungary’s financial market, these aspects should continue to play an important role in Hungarian monetary policy.

*In the longer term, the central bank's room for manoeuvre will be challenged by megatrends that often reinforce each other. For an inflation targeting central bank, the development of fiscal space and policy stance is an important factor in terms of its direct operating environment, as it also affects inflation expectations, while for the central bank of a small, open economy, the role of a volatile financial market environment is also important for inflation developments. In this context, the geopolitical tensions in a world order shifting towards a bipolar state, the effects of climate change and the green transition, and the consequences of the challenge of an aging society all imply a significant narrowing of future fiscal space and a more frequent, if not permanent, financial market turbulence, for which central banks need to be prepared. The best way to do this is by strengthening their commitment to the price stability objective and safeguarding central bank independence. While the operating environment of the central bank changes in response to megatrends, the more direct inflationary consequences of the effects must also be considered: geopolitical tensions in small, open economies may be inflationary through financial market effects, the inflationary effects of climate change are caused by unpredictability, while those of the green transition are caused by controlled processes of transition. At the same time, it is important to underline that it is precisely this transition period that the support for the green transition will accelerate, bringing a new, more environmentally sustainable balance closer. The inflationary impact of demographic change, while it is a predictable process, is uncertain, and central banks need to constantly review the weight of forces affecting price dynamics.*

*Just as the challenges are interlinked, so are the opportunities to address them, and these interact. Central banks can contribute to addressing the challenges of the decade by extending their set of mandates – if they deem it necessary –, by targeted measures, by appropriate regulation of the financial system, by a comprehensive reform of the payment and monetary system, and by making use of their vast information and research potential to formulate proposals. The inflation targeting system provides a flexible framework for this, but flexibility should not come at the expense of the primary objective. In the coming years, central bank credibility and independence will become even more important, ensuring that central banks remain the committed guardians of price stability.*

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