The Magyar Nemzeti Bank's government debt securities purchase programme

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Abstract

The global financial turbulence caused by the coronavirus in March 2020 also had an impact on the Hungarian government securities market. In order to stabilise financial market developments and facilitate efficient monetary policy transmission, the MNB intervened with targeted instruments: it provided adequate liquidity with collateralised credit facility for maturities of three to five years and with government securities purchases in the long-term segment (10 years and over). With these measures, the central bank successfully stabilised government securities market developments within a short period of time. As a result of the programmes, long-term government bond yields declined substantially, the yield curve flattened and government securities market liquidity also improved.

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1. Motivation, introduction

The Magyar Nemzeti Bank (MNB) responded to the economic downturn caused by the coronavirus pandemic with a series of coordinated and targeted measures. The first phase of the economic protection had two key tasks: on the one hand, to stabilise the financial market developments, and on the other hand, to provide the required amount of liquidity to all economic participants, on favourable conditions and with adequate maturity. A significant adaptation of the monetary policy toolkit was one element of the process. As part of this, the government bond purchase programme to affect long-term yields became part of the toolkit, which was announced by the central bank's Monetary Council after its meeting on 28 April 2020.

The programme's aim in the first months of purchases was to create a stable liquidity situation in the government securities market and to facilitate efficient monetary policy transmission. With targeted purchases carried out in May, the MNB successfully stabilised government securities market developments and reduced long-term yields. From July 2020, after a temporary pause, the central bank continued government securities purchases in the over-15-year segment in order to allow the two-step base rate cut in the summer of 2020 to affect the longer part of the yield curve too. Subsequently, in order to facilitate efficient monetary transmission and support liquidity in the government securities market, the Monetary Council increased its weekly purchases several times from August 2020, amended the strategic parameters of the government securities purchase programme on 6 October and carried out a technical review of the programme in November.

The MNB will use its government securities purchase programme to the extent necessary and as long as required by maintaining a lasting presence in the market. The central bank continues to consider it a priority to increase the share of longer maturities within the maturity profile of government debt.

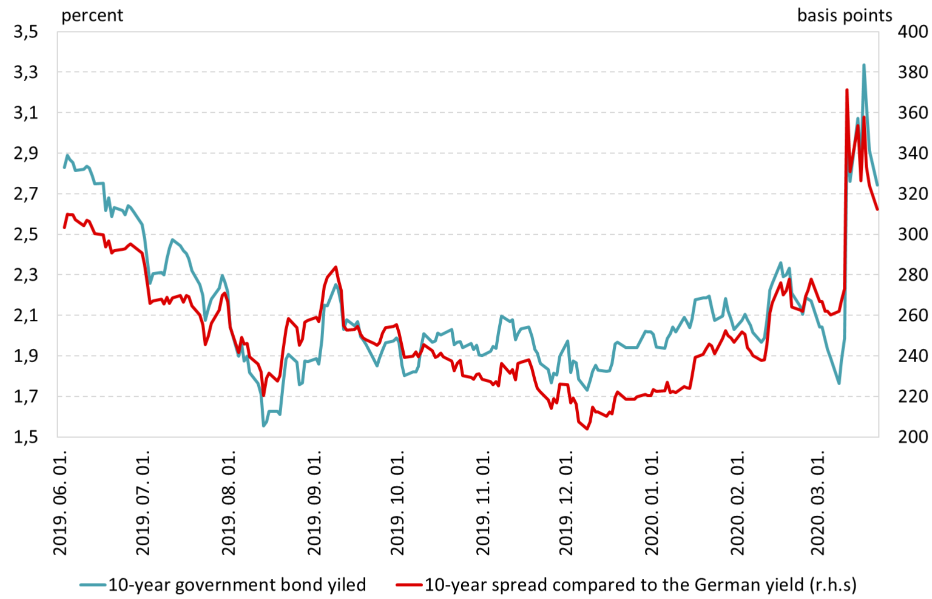
This study presents the development of the Hungarian government securities market before the launch of the programme, and then it describes the monetary policy considerations and the main features of the programme. Then it reviews the effects of purchases on the government securities market and its macroeconomic effects.

2. The impact of the March 2020 market turbulence on the Hungarian government securities market

In March 2020, global financial markets experienced turbulence not seen since the 2007–09 Great Financial Crisis. At the beginning of March 2020, risk aversion intensified in global financial markets, and volatility increased substantially. Developed stock indices fell by 30–40% in a few weeks, with the VIX index measuring stock market volatility rising to a historical high. The EMBI Global index, which measures emerging market bond spreads, rose by 300 basis points to 660 basis points in less than a month, its highest level since 2009. In foreign exchange markets, emerging market economy (EME) currencies weakened with significant dispersion. Currencies considered the riskiest depreciated by nearly 20% against the dollar, while currencies in the central and eastern European (CEE) region weakened by 8–10% against the dollar.

The global financial turbulence also had an impact on the Hungarian government securities market. Long-term yields rose significantly, while the liquidity situation and demand in the long-term auctions fell. During the financial market turbulence in March 2020, 10-year government bond yields rose from around 2% at the beginning of the year by more than 130 basis points to 3.33%. In parallel with rising yields, government bond yield spreads also increased. The spread compared with the German 10-year yield rose by 100 basis points to 370 basis points in a single day on 12 March. Although demand was still adequate at the five-year maturity of the bond auction held by Government Debt Management Agency (ÁKK) on the same day, demand was exceptionally low for the 10- and 20-year maturities, and thus the ÁKK did not issue bonds at these maturities that day. The main indicators of market liquidity also deteriorated: bid-ask spreads rose, average transaction volume declined, and the return-to-volume index, which shows how much price change is caused by executing a given transaction volume, also deteriorated.

Development of the Hungarian 10-year government securities market yield and the spread compared with the German yield — Graph 1



Source: Bloomberg.

Note: The graph includes data up to 24 March 2020, when the long-term collateralised credit facility was announced.

3. Monetary policy considerations

The global market turbulence also affected the Hungarian government securities market, which made it uncertain whether the MNB could achieve its main objective of maintaining price stability. In response, the Bank launched its government securities purchase programme as part of its coordinated and targeted measures.

The main objective of the government securities purchase programme is to maintain the efficiency of monetary transmission and the stability of the government securities market. Despite rapidly changing global market sentiment and the increased demand for government funding, the programme supports the extension of the maturity profile of government debt, the maintenance of stability in the government securities market, and the flattening of the yield curve.

The MNB responded to the challenges posed by changes in the economic environment with a large volume of liquidity and targeted instruments in the long-term assets market. The Bank launched its government securities purchase programme on 4 May to facilitate efficient monetary transmission and mitigate the economic and financial impacts of the pandemic. With targeted purchases carried out in May, the MNB successfully stabilised government securities market developments and reduced long-term yields. In parallel, in order to provide long-lasting support for bank liquidity management and to ensure the stable operation of the relevant financial markets, the MNB also launched a fixed-income collateralised credit facility with a maturity of up to five years.

After a temporary pause, the central bank continued government securities purchases in the over-15-year segment. Subsequently, the MNB decided to increase the amount of weekly government securities purchases on several occasions. This decision reflected the increase of external risks, to support health and economic safeguards, and to maintain the efficiency of monetary transmission and the liquidity of the government securities market.

The government securities purchase programme has become part of the revised monetary policy toolkit. As such, it is an instrument affecting long-term yields. With long-term government bond purchases, monetary policy aims to ensure that interest rate conditions set by the MNB are reflected throughout the yield curve. The monetary policy approach effectively flattens the yield curve.

The role and importance of long-term yields in monetary transmission and financial stability has increased in recent years: the maturity of household loans has shifted to the long side, the prevalence of longer-term assets in savings has strengthened and also within corporate lending, long-term fixed income fund-raising plays an increasingly important role.

The Monetary Council uses the government securities purchase programme to the extent necessary and as long as required by maintaining a lasting presence in the market. The central bank adjusts the amount of its weekly purchases flexibly. The MNB's government securities purchases take place in the secondary market, within the framework of purchase auctions organised by the central bank and at individual secondary market transactions. Purchases are made by the central bank at market prices, focusing on longer maturities. Flexibility is further enhanced by the wide range of counterparties, including both banking and non-banking players, which is of key importance for the government securities market.

Prior to the launch of the government securities purchase programme, the MNB's balance sheet had not expanded in comparison with those of other central banks. Since 2013, instead of a general increase, the MNB has focused on the efficient restructuring of the balance sheet, thus having more room for manoeuvre as regards increasing the size of the balance sheet. Therefore the central bank had a substantial set of instruments available in responding to the adverse economic effects arising from the pandemic. Despite a significant balance sheet increase in 2020, the MNB's balance sheet can be considered to be of average size by regional comparison. All this will allow the central bank to support the management of the risks posed by the coronavirus pandemic and the rapid and sustainable recovery of growth by further expanding its balance sheet.

4. Key features of the programme

4.1 Purchased volume

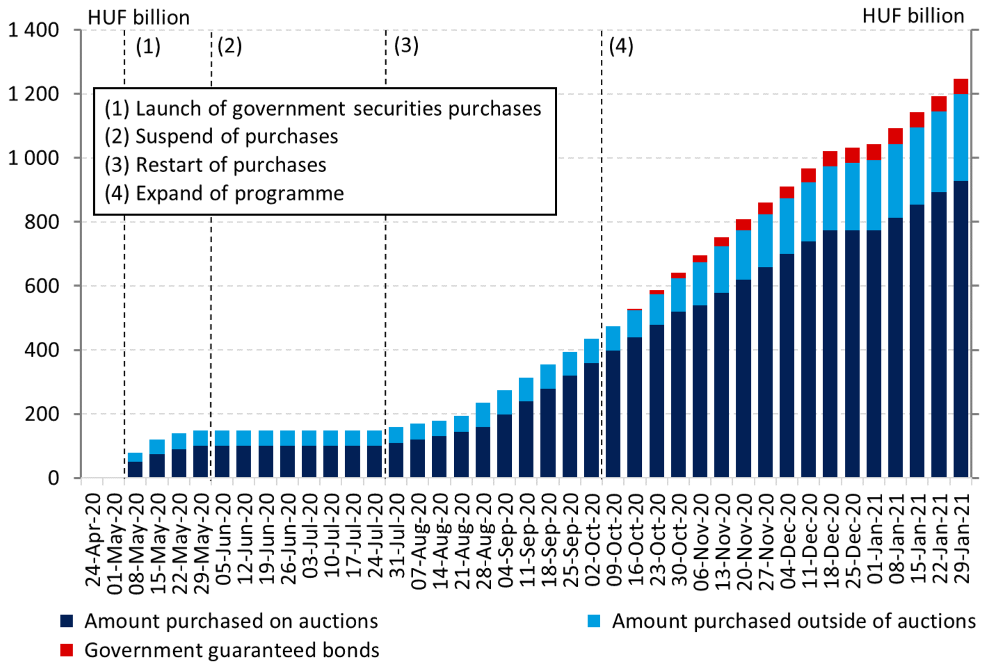
In April 2020, the Monetary Council decided to launch its government securities purchase programme in order to strengthen monetary policy transmission, taking into account country-specific issues and the practice of the ECB. At the start of the programme, the MNB did not set any targeted amount, but it stated that it would carry out a technical review at a portfolio increase of HUF 1,000 billion, as compared with the start of the programme. This amount then represented about 50% of the gross government bond issue planned by the ÁKK for 2020. According to the decision, the purchases covered HUF-denominated, fixed income Hungarian government securities. In the case of each security series, the MNB set the upper limit of the amount that can be purchased at 33% of the market stock. In the first phase of the programme, in May 2020, the weekly purchased volume gradually fell from HUF 80 billion to HUF 10 billion. Following the improvement of market developments and liquidity, the MNB suspended purchases after 26 May. At that time, the stock of government securities owned by the MNB amounted to about HUF 150 billion at face value.

So that the MNB's interest rate measures taken in the summer of 2020 (two base rate cuts of 15 basis points each) would also affect the longer part of the yield curve, the Monetary Council decided in July 2020 to restart government securities purchases, focusing on primarily on the over-15-year segment. In addition, to strengthen monetary transmission over long maturities, the MNB's goal was to dampen potential market volatility due to higher-than-expected government funding needs. The weekly volume of restarted purchases increased from an initial HUF 10 billion to HUF 40 billion in August and then to HUF 50 billion in October.

Following the first revision of the programme, the Monetary Council decided on 6 October 2020 to continue purchases and to fine-tune the parameters of the programme due to the increasing risks as a consequence of the global deterioration of the pandemic situation and in order to support the efficiency of monetary transmission. According to the decision, the next revision will take place when HUF 2,000 billion is reached; the scope of securities that can be purchased was expanded to include debt securities issued with a state guarantee, and the amount that can be purchased for each security series has increased – in line with the ECB's practice – from 33% to 50%. By the end of 2020, the stock of government securities owned by the central bank reached HUF 993 billion, which amounted to about 2%[2] of Hungarian GDP and about 16% of the total net government securities issue of HUF 5,950 billion. By the end of January 2021, the stock rose to almost HUF 1,200 billion.

[2] Based on four quarterly GDP data at the end of September 2020.

Total amount of MNB's government securities purchases Graph 2



Source: MNB.

4.2 Maturity profile

The MNB shapes its weekly purchases in a flexible way, taking into account market developments, but also focusing on longer maturities. With regard to the maturity of government securities available for purchase, the MNB does not impose any restrictions other than the 50% limit per series. The purpose of the purchases is to maintain the efficiency of monetary transmission in a way that supports the extension of the maturity profile of government debt, the maintenance of the stability of government securities market, and the flattening of the yield curve despite the rapidly changing global market sentiment and the increased demand for government funding. Within the total purchased government securities portfolio, the remaining maturity of securities of HUF 1,085 billion is over 10 years, while HUF 114 billion falls between five and 10 years. The average duration of the total government securities stocks thus exceeded 12.5 years at the end of January 2021.

4.3 Technical details (on-auction and off-auction purchases)

The MNB conducts purchases both via regular weekly auctions and through other channels. In addition to government securities auctions and government-guaranteed bond purchase auctions, the MNB purchases government securities and securities issued with government guarantees or sureties on both the stock exchange and over-the-counter secondary markets. The MNB carries out its purchases by enforcing the principles of market neutrality and equal treatment, and in addition to variable-price auctions, bilateral purchases are made at market price. The MNB typically announced three to four series at the weekly auctions. Under the programme, a total of HUF 929 billion was purchased on auctions by the end of January 2021, and the non-auction purchases amounted to an additional HUF 270 billion. The MNB engages with the most important players in terms of market activity. Thus, in addition to the banks that play a key role in the government securities market, investment funds can also participate in the programme, both at auctions and in bilateral transactions, through major investment fund managers.

4.4 Extension of the scheme to securities issued with government guarantees

On 6 October 2020, the Monetary Council also decided to expand the range of bonds purchased as part of the fine-tuning of several parameters of the programme. In order to improve monetary transmission, the range of assets available for purchase was expanded to include securities issued with government guarantees or sureties, by using the same strategic parameters as for the government securities purchases. The central bank purchases bonds with a credit rating corresponding to government securities on the secondary market – in accordance with the practice used in government securities purchases.[3] Since the decision of the Monetary Council in October 2020, the MNB acquired debt securities issued with government guarantees or sureties in total face value of HUF 48.3 billion up to the end of January 2021, with an average duration of 5.9 years.

5. Impact of central bank measures on the government securities market

5.1 Yields, liquidity, primary market

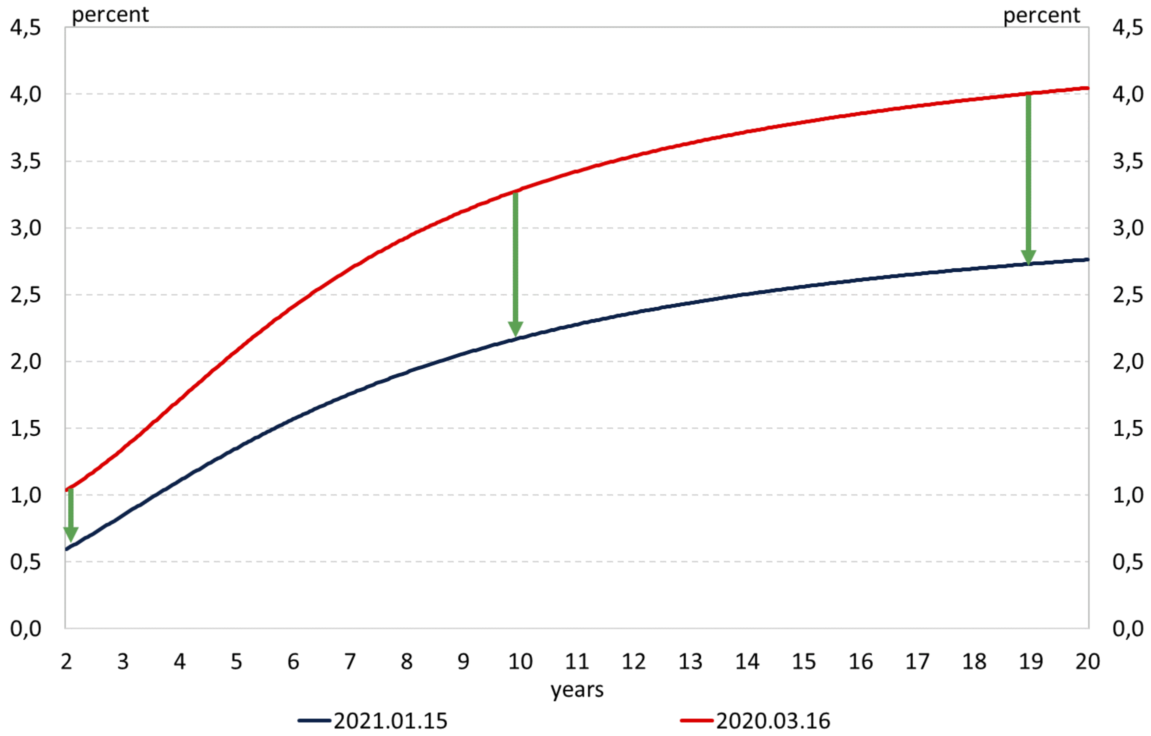
As a result of central bank measures, the HUF government securities market stabilised and long-term government bond yields declined (Graph 3). Compared with the local maximum of 3.33% in March, due to the MNB's measures and the improving global risk sentiment, the 10-year yield ranged mostly from 2.0 to 2.4% after mid-April. There was also a significant decline in yields in the over-10 years segment of the yield curve. Both the 15- and 20-year yields fell 160–170 basis points from their March highs, with the former hovering currently around 2.55% and the latter around 2.85%.

Due to the fall in long-term yields, the slope of the Hungarian government bond yield curve has also flattened. The MNB's instruments affecting long-term yields have substantially supported the central bank's aim of easing monetary conditions over the long end of the yield curve. Government securities purchases are largely concentrated on maturities of over 10 years, as a result of which yields fell more in this segment compared with shorter maturities in the recent period. The two- to 10-year HUF yield spread rose above 220 basis points in March, and currently the slope of this section of the yield curve is around 150 basis points.

[3] Currently, the Hungarian Development Bank and Hungarian Export-Import Bank have bonds outstanding with a state guarantee ("guaranteed" bonds).

Shift of the government securities market yield curve compared with mid-March

Graph 3



Source: ÁKK, MNB.

In addition to the decline in nominal yields, government bond spreads also narrowed. The 10-year spread relative to the German yield, considered to be risk-free, reached 370 basis points during the financial market turbulence in the spring. However, as a result of these measures, the spread has narrowed significantly and has fluctuated between 250 and 300 basis points in recent months. All this means that, in addition to global factors, country-specific effects have also contributed to the decline in HUF yields.

HUF bond auctions have been characterised by stable demand since the beginning of April. The bid-to-cover ratio decreased slightly with the increase in maturity, but the average ratio was more than two during the period under review.

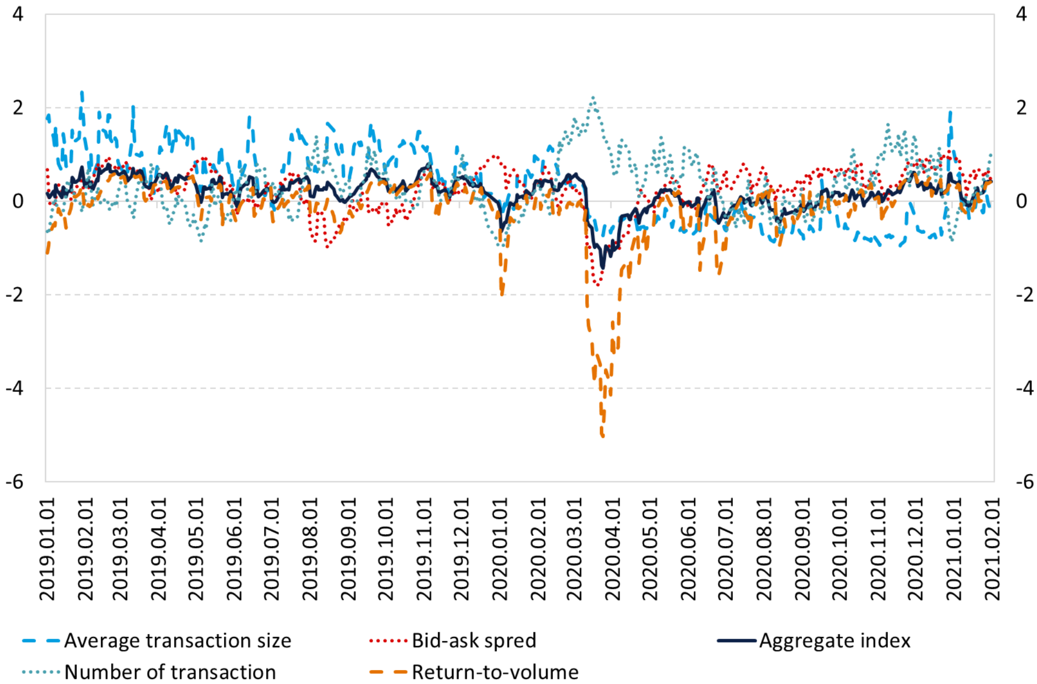
Compared with the end of March, the liquidity situation in the government securities market also improved substantially. Following the launch of the collateralised credit facility and then the government securities purchase programme, all the liquidity indices for the government securities market showed an improvement. In fact, the liquidity situation of the market returned to a level that can be considered as the historical average.[4]

By expanding its asset purchase programme, the MNB also contributed to the decline in the yield on securities issued with government guarantees. In early October, the central bank extended its asset purchase programme to securities issued with

[4] For the methodology, see J Páles and L Varga, "Trends in the liquidity of Hungarian financial markets – What does the MNB's new liquidity index show?", *MNB Bulletin* (discontinued), vol 3, no 1, 2008.

government guarantees. Following the decision, both the Hungarian Export-Import Bank and the Hungarian Development Bank were able to issue bonds on favourable terms. These institutions have raised about HUF 130 billion since October, with a narrow spread of 10–20 basis points over government bond yields.

Government securities market aggregate liquidity index and its sub-indices | Graph 4



Note: For the aggregate liquidity index and its sub-indices a shift towards negative values indicates the decrease in liquidity. Thus, bid-ask spread and price effect index appear on an inverse scale.

Source: MNB, KELER.

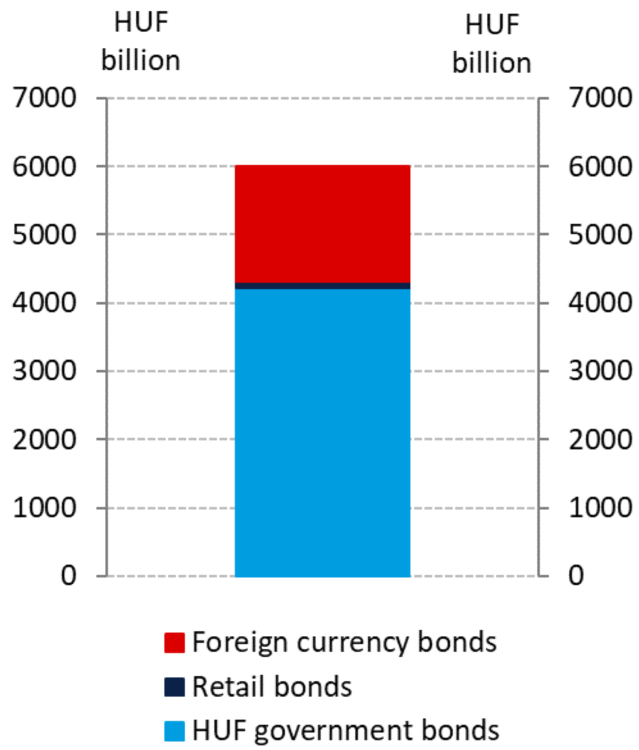
5.2 Ownership structure

The significantly increased financing need was channelled to the wholesale market's diversified investor base and mostly to domestic institutions. In March 2020, the central bank introduced its long-term collateralised credit facility, through which it provides liquidity to the banking system. On the one hand, it stimulates lending activity, and on the other hand, part of it emerges on the government securities market, thus increasing the demand for HUF bonds. MNB also supports the Hungarian government securities market through its government securities purchase programme and its collateralised credit facility. The two programmes work as a hybrid solution, where the combined effect of the two measures is significant. The commercial banks' stock of the government securities with a maturity of over three years increased by more than HUF 2,200 billion compared with the first quarter of 2020, which was also supported by the central bank's collateralised credit facility. Thus their share in this market segment is around 50%. The stock of foreign-owned government securities also increased by about HUF 1,000 billion. As part of these purchases, the holdings of the government securities by the central bank increased by about HUF 1,200 billion until January 2021. At present, the central bank holds 7% of the market stock of HUF government bonds.

6. Impact of the programme on public sector funding

The MNB's government securities purchase programme indirectly supports the restoration of Hungarian economic growth through a number of channels. In addition to facilitating the proper functioning of monetary transmission, the government securities purchase programme also helps to ensure that government securities market funding is achieved under favourable conditions. Stable and predictable financing has created room for a strong fiscal intervention. In 2020, measures mitigating the negative health and economic effects of the pandemic accounted for a direct budgetary impact of more than 12% of GDP. A significant part of the measures were financed through transfers, use of reserves, tax increases and reallocations of EU funds. Thus, the net effect of these measures may have been around 8% of GDP.

Profile of Hungarian net government securities issue in 2020 — Graph 5



Source: ÁKK

In 2020, financing of the current year's deficit and the maturing debt relied mainly on domestic sources. As a result of the fall in revenue caused by the coronavirus and the additional expenditures due to the crisis, the cash flow-based deficit of the central budget amounted to over HUF 5,500 billion. Continuing the strategy of recent years, the Debt Management Agency sought to raise the necessary funds mainly via the domestic market. The issue of HUF bonds thus amounted in net terms to over HUF 4,000 billion. In addition, despite the crisis, the stock of retail securities also increased last year, by about HUF 100 billion. Within this total, the stock held by households increased by more than HUF 1,000 billion, while the stock held by other sectors (credit institutions, investment funds etc) fell by HUF 900 billion. Financing the increased deficit entirely from the HUF market could have led to oversupply tensions. Taking this and other economic policy objectives (green bonds) into account, the Debt Management Agency issued nine foreign currency bonds on four occasions in 2020, for a total value of € 6.5 billion. Thus, net foreign currency issuance amounted to HUF 1,700 billion.

Despite the increased supply, yields remained stable in the HUF market. Gross HUF bond issuance accounted for about 13% of GDP, which represented a significant increase over 2019, representing some 7% of GDP. Nevertheless, yields returned to or below the pre-crisis levels after the jump in March, and have fluctuated around these levels in recent months. Despite the increased supply, the Debt Management Agency was able to issue, almost without exception, the planned quantity at the auctions.

Increased issuance was concentrated in the longer segment, increasing the average duration of government debt. The average duration of Hungarian government debt can be considered low by international comparison, which also means that the annual gross financing need of the budget is high. With its purchases in the longer segment, the central bank supported the Debt Management Agency in its aim of increasing issuance of longer-term securities to higher levels than in previous years. As a result, the average duration of government debt increased by almost one year to five years in November 2020, as compared with the end of 2019, exceeding the average maturity of Polish and Swedish government debt.

At present, it is too early to assess in depth the macroeconomic impact of the programme. Looking ahead, maintaining favourable financing conditions will be key to restoring the economy. Once the pandemic situation is resolved, the economic policy goal will be to return to a sustainable growth path supported by low yields on the financing side. In addition, low interest rates should also promote the demand side of credit markets, thus facilitating, inter alia, the recovery of the real estate market in parallel with the home building programme. The government securities purchase programme will thus help to avoid a credit-free recovery. The macroeconomic impact of the programme will become apparent after the recovery.

7. Conclusion

In order to stabilise market processes, the MNB intervened in the government securities market with targeted instruments: it provided adequate liquidity with its collateralised credit facility in medium-term maturities (three to five years) and through government securities purchases in the long-term segment (10 years and over). As a response to the outbreak of the coronavirus pandemic, the MNB successfully and quickly stabilised the government securities market through government securities purchases. As a result of the programme, long-term government bond yields declined substantially, the yield curve flattened and liquidity improved. In addition to declining yields, spreads relative to German yields also declined substantially owing to the targeted programmes of the central bank.

Purchases in the long segment contributed to the proper functioning of monetary transmission. The MNB reduced the base rate by 15 basis points in both June and July. The base rate cuts also had an effect on the long end of the yield curve, with yields declining by around 160–170 basis points in the longest segment following the turbulent period in 2020. The MNB's purchases are concentrated in maturities of over 10 years, and thus its purchases also support the issuance of longer-term government debt and hence the lengthening of its maturity profile.

In addition to improving the efficiency of monetary transmission, the MNB's measures concerning the government securities purchase programme have helped to maintain the stability of the government securities market and to keep yields low. The MNB increased the pace of weekly purchases in August 2020, then changed the parameters of the programme in October 2020, increasing the central bank's room for manoeuvre. In November 2020, the MNB set a new HUF 2,000 billion technical revision limit for the programme. In this way, the MNB has established a lasting presence in the government securities market, thus safeguarding the results achieved so far by the purchase programme.