MONETARY POLICY INSTRUMENTS OF THE MAGYAR NEMZETI BANK DURING THE COVID-19 CRISIS: LIQUIDITY, SAFETY, FLEXIBILITY

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Monetary policy instruments of the Magyar Nemzeti Bank during the COVID-19 crisis: liquidity, safety, flexibility

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Executive summary

The economic and financial crisis triggered by the coronavirus pandemic quickly spread in the entire global economy. The crisis was sought to be managed not only through fiscal policy and regulatory measures, as central banks also took decisive action, in particular by modifying and supplementing their instruments to facilitate as broad and flexible an intervention as possible.

The money market turbulences caused by the coronavirus epidemic left their mark on Hungarian financial markets as early as mid-March 2020. To cushion the negative money market and real economy consequences, the Magyar Nemzeti Bank (MNB) also decided to modify its monetary policy instruments.

This was necessitated by three aims: (1) providing adequate liquidity to the banking system and financial markets in keeping with the maintenance of price stability and financial stability, (2) allowing more flexibility in short-term yields in response to the negative money market developments induced by the coronavirus, and (3) ensuring that the MNB is able to shape and influence long-term yields, which have gained increasing importance in recent years, directly and on as many relevant markets as possible. As part of the liquidity measures, the scope of eligible collateral was expanded with corporate loans, the group of central bank counterparties was broadened in a targeted manner to include investment funds, the long-term central bank credit facility was introduced and the sanctions for the reserve requirement were suspended. With a view to improving the efficiency of the operational framework and shaping long-term yields, the one-week deposit was activated and the interest rate corridor was made symmetrical on the one hand, and the FGS was expanded, the conditions of the BGS and the preferential deposit were changed and the asset purchase programmes were launched on the other hand.

As a result of the modifications, the set of monetary policy instruments became more flexible. The MNB's monetary policy toolkit now contains not only instruments affecting short-term yields but also ones affecting long-term yields, which allows the whole yield curve to be shaped in line with the monetary policy objectives.

Chronology of the changes to the set of monetary policy instruments (March–April 2020)

	Decision
16 March 2020	With its decision on 16 March to supplement the 1-, 3-, 6- and 12-month tenders, the MNB activated the 1-week foreign currency swap instrument providing forint liquidity with a view to ensuring adequate liquidity in the banking system and smoothing liquidity trends. The 1-week tender was announced on a daily basis between 17 and 27 March.
17 March 2020	With its decision on 17 March, the MNB expanded the scope of eligible collateral with corporate loans effective 23 March: this boosted banks' stock of available assets eligible as collateral by HUF 2,600 billion at adjusted market value, thereby considerably increasing the liquidity potentially accessible by banks. Counterparty institutions can offer performing corporate loans as collateral, irrespective of the maturity and currency of the loan. The MNB applies a uniform 30-percent haircut to the accepted loans.
24 March 2020	At its meeting on 24 March 2020, the Monetary Council decided to introduce a new, fixed-rate collateralised credit instrument at 3-, 6- and 12-month and 3- and 5-year maturities. The MNB provides the loans at a fixed rate, with unlimited liquidity. The first tender with this instrument was held on 25 March 2020.

24 March 2020	At its same meeting, the Monetary Council granted an exemption to Hungarian counterparty credit institutions subject to minimum reserve requirements from the legal consequences of failing to meet the reserve requirement. The decision was made with immediate effect, therefore from the March 2020 reserve maintenance period, the reserve requirement can be violated without sanctions. The introduction of this measure boosted the freely available liquidity in the banking system by HUF 250 billion.
1 April 2020	On 1 April, the MNB decided to activate the one-week deposit facility bearing interest at the central bank policy rate, then one week later, in line with the below decisions of the Monetary Council, it made the interest rate of the facility variable within the interest rate corridor.
7 April 2020	The Monetary Council made the interest rate corridor symmetrical: while keeping the 0.9-percent policy rate and the -0.05-percent O/N deposit rate unchanged, the rate of the O/N and one-week collateralised credit instrument increased from 0.9 to 1.85 percent.
7 April 2020	The Monetary Council also decided to establish the stable liquidity position of the government securities market by launching a government securities purchase programme on the secondary market, and to resume its mortgage bond purchase programme to improve the banking system's access to long-term funds.
7 April 2020	On 20 April 2020, in accordance with the Monetary Council's decision, the MNB launched the Funding for Growth Scheme Go!, raising the already allocated amount by HUF 1,000 billion. Together with the HUF 500 billion untapped in the FGS fix scheme, the MNB provides HUF 1,500 billion in cheap and stable funding for SME sector lending under the combined FGS Go! scheme. The refinancing loan's maximum maturity was raised from the earlier 10 years to 20, and the maximum loan amount available to each SME was increased from HUF 1 billion to 20 billion.
7 April 2020	The Monetary Council also decided to keep the HUF 450 billion allocated for the Bond Funding for Growth Scheme unchanged, however, raising the maximum exposure permitted against a corporate group from HUF 20 billion to 50 billion helps the corporate sector rely more on alternative sources of financing other than bank loans. The extension of the maturity of the securities purchased under the programme from 10 years to 20 allows the corporate sector to access sustainable, stable and long-term financing, just like their European competitors.
7 April 2020	In keeping with the Monetary Council's decision, the surplus funds issued within the framework of the FGS Go! and the BGS will continue to be sterilised by the MNB with the preferential deposit facility. The preferential deposit will temporarily have tiered interest rates from 4 May 2020 until the end of June 2021. The MNB pays interest above the policy rate, at 4 percent, on the growth in the loan and bond portfolio that occurs under the FGS Go! and BGS schemes after 7 April 2020.
30 April 2020	The MNB made several complementary decisions on 30 April 2020 to offer to investment funds the widest possible array of central bank instruments. First, the group of counterparties in the Bond Funding for Growth Scheme and the government securities purchase programme was expanded to include the public and open-end securities funds managed by the ten largest investment fund management companies registered in Hungary. Second, collateralised central bank loans became available to investment funds at all maturities. Third, the central bank expanded the scope of eligible collateral with the investment fund shares of forint-denominated securities and real estate funds.

1 Introduction

The SARS-CoV-2 coronavirus that emerged in the winter of 2019 escalated into a full-blown global pandemic (COVID-19) in the spring of 2020, causing a health emergency unparalleled for decades. The countries responded to the public health challenges by closing borders and imposing immediate and massive restrictive measures. It soon became clear that the efforts based on minimising social contact would bring the economy to an abrupt halt unprecedented in modern history, which called for prompt and extensive economic policy intervention. Although the pandemic itself did not hit Hungary as hard as many Western European countries or those across the Atlantic, Hungarian economic policymakers decided to take decisive action, since Hungary is an open economy.

The Magyar Nemzeti Bank (MNB) responded to the crisis of confidence and economic turmoil created by the epidemic with all aspects of its operations. The present publication presents the measures related to the MNB's monetary policy instruments, pointing out the steps the central bank took between March and May 2020, which provide an exceptionally wide range of options for intervention to the central bank as regards the relevant markets and maturities.

The publication first presents the quantitative restriction framework between 2016 and 2020, then briefly describes the measures introduced by international central banks in the face of the coronavirus epidemic, with a special focus on the practices of the Federal Reserve (Fed) and the European Central Bank (ECB) as well as the Central and Eastern European central banks launching asset purchase programmes. After this, the spring 2020 modification of the Magyar Nemzeti Bank's monetary policy toolkit is outlined to clarify and explore the reasons behind the introduction of the different instruments and the relations between the individual tools.

2 The functioning of monetary policy toolkit between the autumn of 2016 and the spring of 2020 – The quantitative restriction framework

2.1 THE HUNGARIAN BANKING SYSTEM'S STRUCTURAL LIQUIDITY SURPLUS

The Hungarian banking system is characterised by a structural liquidity surplus, as banks hold a considerable amount of liquidity in short-term central bank deposit facilities. The Hungarian banking system was characterised by a structural liquidity surplus even before the crisis, although this is generally true of small, open economies. The excess liquidity reflects the liquidity-boosting effect of the central bank converting external funds (e.g. FX or EU funds), which is only partly offset by the liquidity-absorbing effect of the expansion in cash holdings. The liquidity surplus is always placed in a central bank deposit, so the monetary policy transmission usually goes through the interest rate of a central bank deposit facility. Liquidity was exceptionally abundant in the Hungarian banking system right until 2015. However, in that year liquidity started to diminish on account of the forint conversion of household FX loans on the one hand, and the Self-Financing Programme and the refinancing of maturing sovereign FX debt from forint on the other hand. In the course of the two central bank programmes, banking system liquidity declined from the earlier HUF 5,000–6,000 billion by HUF 4,000 billion in total, but the structural liquidity surplus persisted nonetheless. The Hungarian banking system's liquidity has fluctuated between HUF 1,000 billion and 2,000 billion in recent years, however, the structure of liquidity has changed considerably due to the quantitative restriction framework introduced in 2016. In terms of the liquidity structure, the use of the central bank deposits tied to the policy rate decreased, while large amounts of interbank liquidity flowed into the overnight (O/N) central bank deposit.

2.2 THE OPERATION OF THE QUANTITATIVE RESTRICTION FRAMEWORK

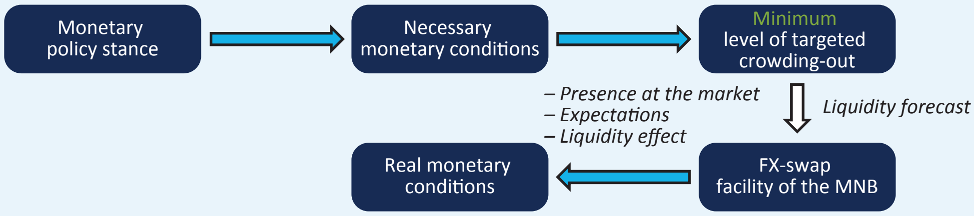
In the quantitative restriction framework, the liquidity crowded out from the central bank deposit facilities bearing interest at the policy rate ensured the preservation of loose monetary conditions after appearing on money markets. With respect to the central bank toolkit, the commitment to loose monetary conditions entailed the introduction of the quantitative restriction framework in the autumn of 2016. The quantitative restriction aimed to change the structure of banks' excess liquidity, which ultimately resulted in the contraction of the holdings in the main policy instrument at that time, the three-month central bank deposit facility, and in the increase of the central bank overnight (O/N) deposit ('crowding-out effect'). Banks could also place the liquidity crowded out from the central bank deposits bearing interest at the policy rate in the preferential deposit facility bearing interest at the policy rate, which however is a sterilisation instrument with limitations and subject to conditions. Moreover, the liquidity not deposited at the policy rate could also 'look for opportunities' at the interbank and government securities markets, too, where the appearance of excess liquidity pointed towards a decline in yields.[1] The aims of the quantitative restriction were supported by the multi-step transformation of the interest rate corridor, which made the corridor asymmetric: in this period, the policy rate marked the ceiling of the corridor, while the overnight deposit rate entered into negative territory.

Operating the quantitative restriction required that banking system liquidity be actively managed, and the MNB introduced targeted fine-tuning instruments to this end. On account of the great uncertainty surrounding interbank liquidity, the quantitative restriction framework called for the introduction of fine-tuning instruments directly affecting the

[1] For more details, see: Kolozsi–Horváth (2020)

liquidity path. To absorb the excessive interbank liquidity, a one-week deposit facility bearing interest at the policy rate was introduced. The deposit facility was not activated while the quantitative restriction was in place since the liquidity shocks typically pointed towards the contraction of liquidity. The central bank toolkit was supplemented with one-week, one-month and three-month HUF/EUR swap instruments providing forint liquidity, followed by six- and twelve-month instruments from March 2017, to manage the negative liquidity shocks (curbing liquidity) (Kolozsi–Hoffmann, 2016). The central bank swap instrument was first used in October 2016, and the central bank has been actively using it ever since, at weekly tenders. After a massive build-up of the central bank's swap holdings, even positive liquidity shocks (boosting liquidity) were manageable with the swap instrument, by reducing swap holdings.

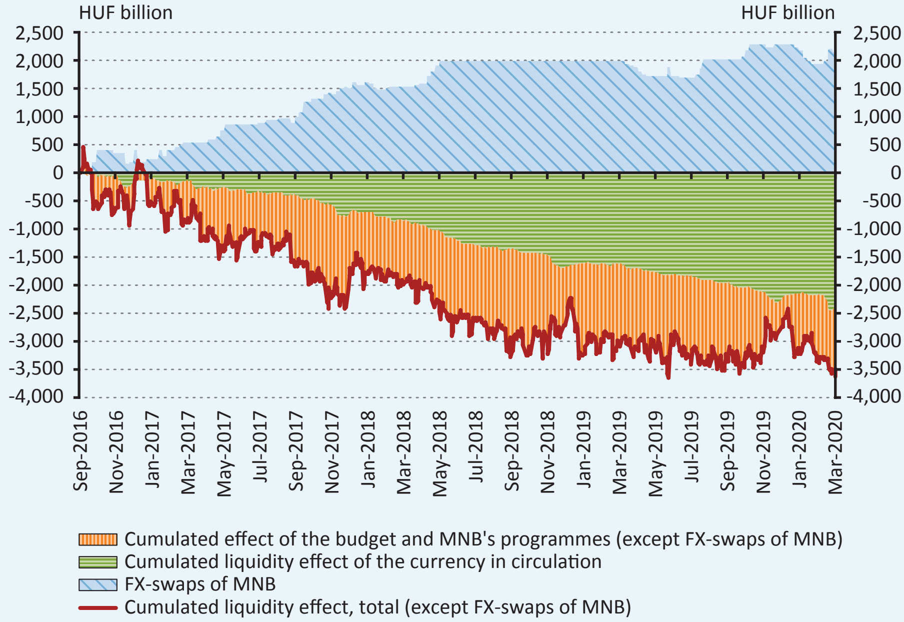
Figure 1
Schematic illustration of the quantitative restriction



Source: Hoffmann–Kolozsi (2019).

The build-up of the central bank's swap holdings allowed the MNB to offset the liquidity-reducing effect of other factors influencing liquidity. The central bank swap holdings amounted to HUF 2,000 billion by March 2020 (Figure 2). Without the swap instrument, the other factors influencing liquidity would have led to a drop in liquidity of an approximately similar magnitude. Of the factors affecting liquidity, the largest impact on liquidity trends was made by cash holdings, which increased by roughly HUF 2,000 billion since the introduction of the quantitative restriction, in other words, ceteris paribus, it squeezed this much liquidity from the banking system.

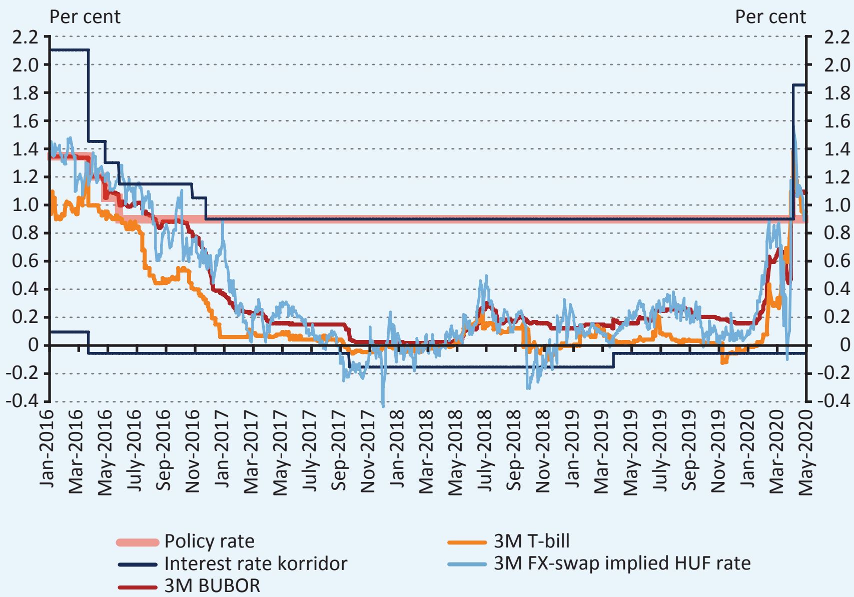
Figure 2
The liquidity impact of autonomous factors and central bank programmes as well as the development of the central bank swap holdings until March 2020



Source: MNB.

The quantitative restriction has fulfilled its purpose, as short-term yields decreased considerably and loose monetary conditions persisted between 2016 and 2020. One of the main objectives of the quantitative restriction was to further reduce yields at short maturities, which contributes to economic growth, maintaining price stability at the same time. Short-term yields started to fall when the quantitative restriction framework was introduced, and already when it was announced, and they remained steadily in the lower half of the interest rate corridor in all key sub-markets for most of the quantitative restriction period. After the introduction of the quantitative restriction, short-term yields, which are of particular importance from the perspective of the pricing of money market and loan products, declined on all relevant markets, deviating substantially from the policy rate and practically reaching the bottom of the interest rate corridor by mid-2017. The 3-month implied swap rate even dipped temporarily into negative territory. Consequently, the operation of quantitative restriction with active liquidity management proved to be successful.

Figure 3
Short-term yields since the introduction of the quantitative restriction



Source: MNB.

3 The impact of the crisis induced by the coronavirus epidemic on monetary policy instruments

The economic and financial crisis triggered by the coronavirus pandemic in the spring of 2020 quickly spread in the entire global economy, and the world economy practically ground to a halt on account of the virus. The first wave of the economic crisis was caused by the disruption to the global supply chains, and the introduced measures pushed more and more industries into critical situation, which led to a crisis of confidence. With the appearance of the SARS-CoV-2 virus in the developed Western world, in particular Europe and the US, the economic effects were strengthened and became directly discernible. As a result of the series of measures introduced by the affected countries, industrial production and most of the services sector had been shut down by mid-March 2020. Therefore, the virus caused a supply shock and a demand shock at the same time, all across Europe.

Major central banks as well as those in the CEE region significantly modified their instruments to manage the crisis, and these changes meant a shift towards more flexibility in all cases. As the outbreak of the crisis primarily caused liquidity problems, central bank instruments were mostly supplemented with short- and long-term lending as well as asset purchases in open-market operations. This summary briefly describes these measures.

3.1 LONG-TERM CENTRAL BANK CREDIT INSTRUMENTS

The European Central Bank (ECB) ensures that banks have sufficient access to financing by expanding its existing refinancing instruments and the scope of eligible collateral, and with its pandemic credit instrument introduced as a standing facility. The crisis-management measures included a new, long-term refinancing instrument (LTRO),[2] and the conditions of the targeted long-term refinancing instrument (TLTRO III)[3] launched earlier were eased. As a result of the easing, banks can access funding at even lower rates than before, namely at -0.5 percent, or -1 percent if lending exceeds a certain threshold. The former helped banks to access liquidity for three months, which was an immediate stopgap solution until the next TLTRO III tender in June. The easing of the conditions of the TLTRO III is primarily meant to support bank lending in the Member States that are the most badly hit by the spread of the coronavirus pandemic. Furthermore, key objectives include bolstering the availability of funds to small and medium-sized enterprises and maintaining the earlier credit growth. To supplement these, the scope of eligible collateral was expanded at the end of April 2020, and the pandemic emergency refinancing instrument (PELTRO)[4] was introduced. The latter differs from the other refinancing operations mainly in that banks can access funds at favourable prices up to the amount of their available collateral, without being subject to any lending conditions.

The Federal Reserve (Fed) uses its credit instruments to provide long-term liquidity to a wide range of economic actors, indirectly to companies, in particular. In the US, direct credit instruments can be used by domestic banks to access funds. These include one of the chief monetary policy instruments of the Fed, the short-term collateralised loan (discount window), the maximum maturity of which was extended to 90 days, and the credit instrument created for primary dealers (PDCF).[5] In addition, the Fed provides dollar liquidity to foreign central banks through FX swap arrangements and the FIMA repo facility. Banks have recourse to both up to the amount of their eligible collateral. By contrast, indirect credit instruments are aimed at lending to non-bank players, which is conducted through special purpose vehicles due to legal

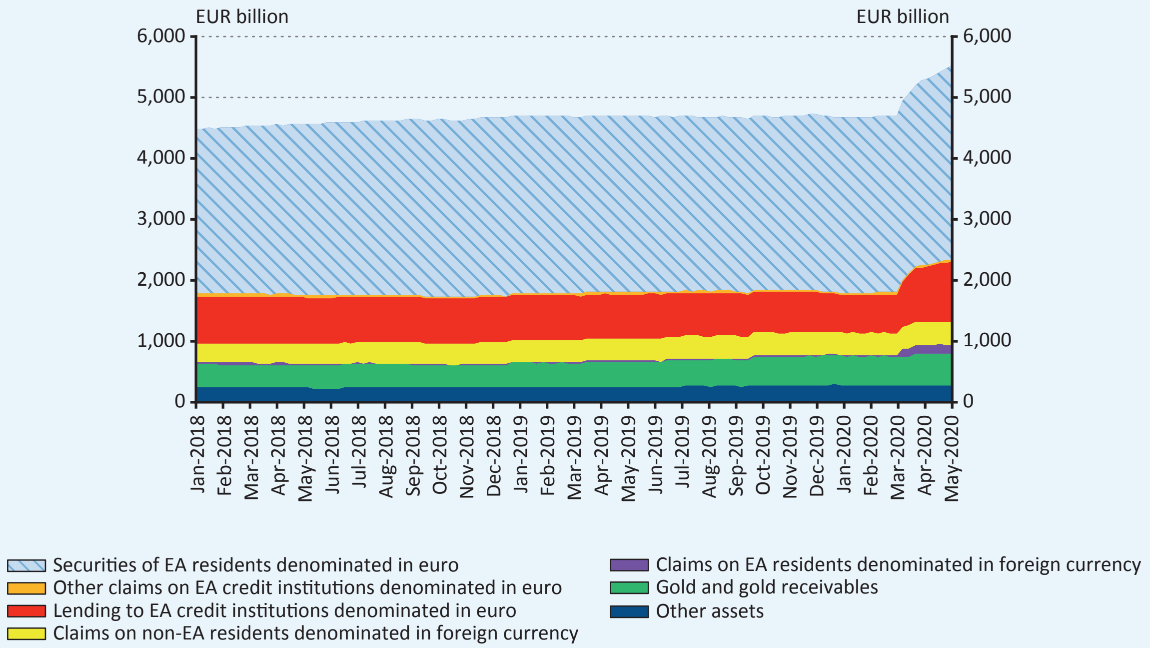
[2] Longer-Term Refinancing Operations
[3] Targeted Longer-Term Refinancing Operations
[4] Pandemic Emergency Longer-Term Refinancing Operations
[5] Primary Dealer Credit Facility

particularities. All in all, three facilities were introduced, providing liquidity to money market mutual funds (MMLF),[6] companies holding accounts at primary issuers (TALF)[7] and the firms participating in the Paycheck Protection Programme (PPPLF).[8]

3.2 ASSET PURCHASE PROGRAMMES

The ECB announced in March that it would increase the size of the asset purchase programme restarted in September 2019 (by an additional EUR 120 billion this year) and introduce a temporary pandemic emergency purchase programme. Under the temporary pandemic emergency purchase programme (PEPP),[9] the ECB purchases securities for EUR 750 billion until the end of 2020. The scope of eligible assets is identical to those in the earlier asset purchase programme. In the case of government bonds, purchases continue to be conducted in line with the capital keys, however, the ECB stressed in its communication multiple times that purchases would be conducted as flexibly as possible, in other words purchases may temporarily deviate from the capital key purchases. The amounts purchased under the programme are published by the ECB at its own website on a weekly basis. As a result of the asset purchase programmes and the various liquidity-providing instruments, the ECB's balance sheet total increased by over EUR 800 billion to EUR 5,500 billion since early March (Figure 4).

Figure 4
The assets side of the ECB balance sheet

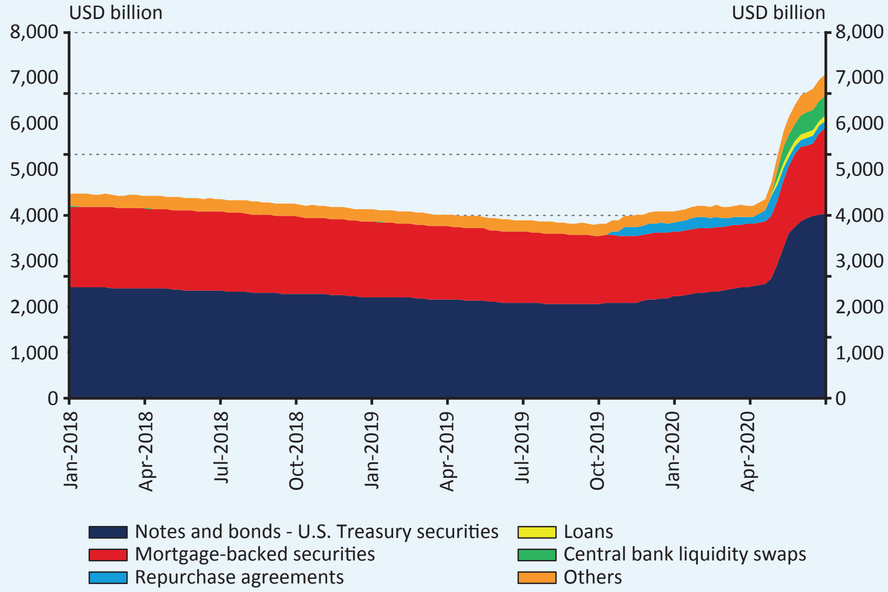


Source: ECB.

[6] Money Market Mutual Fund Liquidity Facility
[7] Term Asset-Backed Securities Loan Facility
[8] Paycheck Protection Program Liquidity Facility
[9] Pandemic Emergency Purchase Programme

The Fed's direct and indirect asset purchase programmes include not only traditional asset classes but also a wide range of municipal and corporate securities as well as newly disbursed and securitised loans. Direct purchases are made in the case of US Treasuries and mortgage-backed securities. At the same time, the resuming of the Treasury purchase programme can also be seen as fine-tuning, since the Fed started the purchases earlier to mitigate the tensions on the repo market. Conversely, in the scope of indirect asset purchases, the Fed buys securities issued or guaranteed by non-federal state actors. The PMCCF[10] and the MLF[11] allow the Fed to purchase corporate bonds and municipal debt instruments from the issuers, while the use of the CPFF[12] and the SMCFF[13] has paved the way for obtaining corporate debt instruments on the secondary market. Furthermore, a complex asset purchase programme[14] was introduced that enables the Fed to buy newly disbursed corporate loans with specific parameters from commercial banks. For more details on the Fed's asset purchase programme, visit their website. Owing to the asset purchase programmes and the use of the introduced credit instruments, the Fed's balance sheet total passed the USD 7,000 billion mark by the end of May (Figure 5).

Figure 5
Fed balance sheet in an asset side breakdown



Source: Federal Reserve.

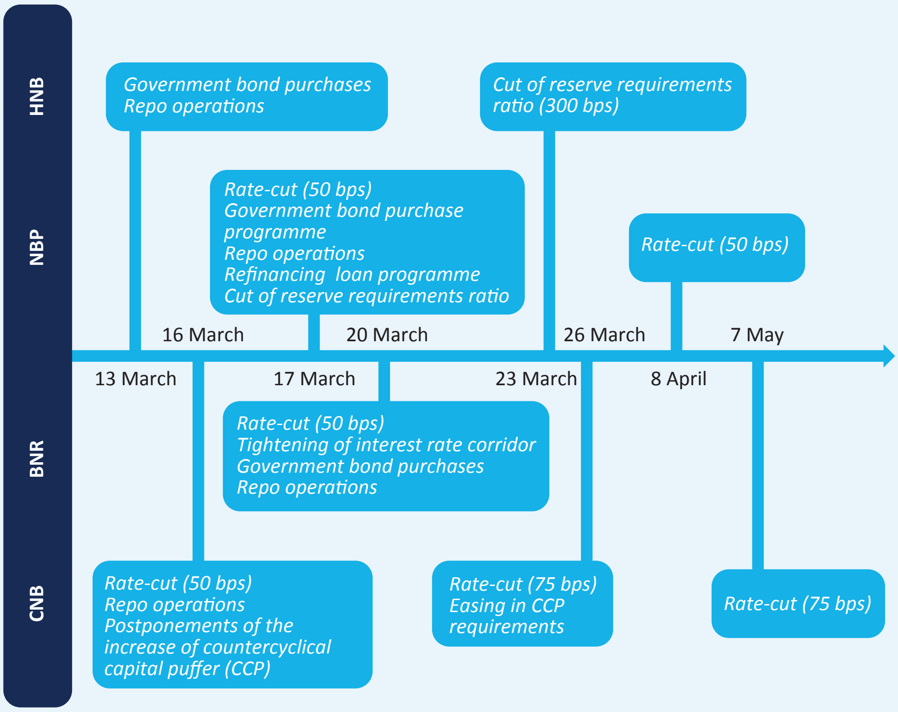
[10] Primary Market Corporate Credit Facility
[11] Municipal Liquidity Facility
[12] Commercial Paper Funding Facility
[13] Secondary Market Corporate Credit Facility
[14] Main Street Lending Program

Asset purchase programmes in the CEE region

As part of the monetary policy measures related to the financial and economic crisis caused by the coronavirus pandemic, asset purchase programmes were increasingly announced not only by global central banks but also in emerging countries. Of the countries with independent monetary policy in the CEE region, Poland, Romania and Croatia all started asset purchases.

Croatia was the first country in the region where the central bank took action, and it has been purchasing government securities since 13 March 2020 on an ad hoc basis. The Polish central bank announced on 17 March 2020 that it would embark on a large-scale bond purchase programme, and since then purchases have been conducted at regular intervals. In Romania, the central bank announced at its rate-setting meeting on 20 March 2020 that it would purchase government securities on the secondary market on a discretionary basis, and according to its press release in May, several purchases have been completed. Even though the Czech central bank has not engaged in asset purchases yet, the central bank obtained the necessary statutory mandate in mid-April.

Figure 6
Major measures of CEE central banks



Source: central bank websites.

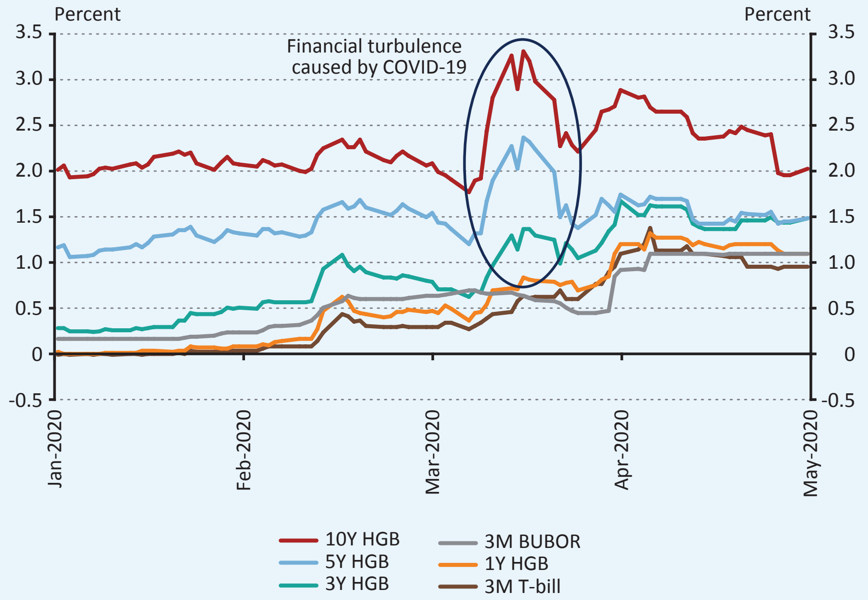
4 Adaptation of Magyar Nemzeti Bank's monetary policy instruments in response to the crisis brought on by COVID-19

Magyar Nemzeti Bank's is tasked with achieving and maintaining price stability, preserving financial stability and supporting the Government's economic policy. Dampening the negative impacts of the coronavirus pandemic on the real economy and the money market as well as supporting the efforts made to restart the economy have come to be some of the most important tasks for the MNB in recent months. The Bank has responded to the challenges with a coordinated series of targeted measures, transforming and expanding its monetary policy instruments. The changes that have been introduced enable the MNB to maintain the necessary level of liquidity and manage the required monetary conditions in a targeted and flexible way in the market segments of importance from the aspect of monetary policy.

4.1 THE MOTIVES DRIVING THE ADAPTATION OF THE MONETARY POLICY INSTRUMENTS

Money market turbulence caused by the coronavirus epidemic had come to affect the domestic financial markets as well, by mid-March 2020. Liquidity ebbed in a number of market segments, including the FX spot, forward swap segments as well as the sovereign debt market. HUF sovereign debt market yields started to grow on the week of 9 March. In the wake of the bond auctions on 12 March 2020 both the 3-year and the 5-year yields rose by more than 100 basis points. Besides the sovereign debt market, liquidity decreased substantially in the FX swap market, foreign exchange grew less easily available, as reflected in a drop in implied HUF yields (indicating an USD and EUR shortage). These processes were accompanied by a weakening of the HUF and an increase in risk premia. All emerging markets were characterised in general by money market volatility, rising yield rates and global risk avoidance.

Figure 7
Sovereign debt market and 3 M interbank rates



Source: MNB, ÁKK.

MNB has adjusted its monetary policy instruments to dampen the negative effects of COVID-19 on the money market and the real economy, developing a flexible response capability in the most relevant markets and over the entire yield curve. The adaptation of the instruments was driven by the following endeavours towards macroeconomic and financial stability objectives:

1. **Ensuring liquidity**: The money market turbulence in the first phase of the crisis required that MNB be able to provide liquidity for the banking system and other money market participants not only in the short run (within one year) but also over longer terms.

2. **Influencing short yields in a more flexible way:** The confidence crisis triggered by the pandemic and uncertainties regarding outlooks, called for a review of the operational framework affecting short term yields. Rates for all maturity categories began to rise as early as February 2020, although in the long-term category this proved to be a short-lived increase, but in the short-term yields deviated materially from the bottom of the interest rate corridor. Yields continued to rise after mid-March, in an atmosphere brought about by the money market crisis. It became clear that increased flexibility and manoeuvring room would be required for adequately controlling short term yields to stabilise the money markets.

3. **Increasingly important long term yields and introduction of instruments affecting them:** As a consequence of targeted programmes launched by the government and the MNB long-term yields have grown substantially more important in terms of monetary policy in recent years in Hungary.[15] The importance of long term yields is reflected in Hungary by an increase of loans with longer interest periods and loans with fixed interest rates within the household loan portfolio. Accordingly, the central bank needs to be capable of even more directly influencing the long-term yields of the various market segments, if the inflation target is to be achieved. The coronavirus pandemic triggered a rise in the long term yields despite improved inflation outlooks. The increase at the long end of the yield curve however, is contrary to the MNB's monetary policy objectives. In response to the above, the central bank was required to introduce targeted instruments regarding these maturity categories as well to bring down long term yields and flatten the yield curve.

Figure 8
Monetary policy goals and associated instruments, from March 2020

	Monetary policy goals		
	Liquidity provision	Ability of flexible management of short-term yields	Instruments of long-term yield management
Instruments linked to the monetary goals	Expansion of the eligible collateral scope Expansion of the counterparties scope with investment funds Long-term collateralized loan Exemption from reserve requirements	1-week deposit activation Symmetric interest rate corridor	FGS Go! Easing of conditions of the BGS Long-term collateralized loan Government securities purchase programme Mortgage bond purchase programme

Source: MNB.

[15] In particular: Self-financing Programme, Funding for Growth Scheme, Bond Funding for Growth Scheme, promotion of the customer-friendly and fixed-rate household loans and the launch of the retail government securities programme

4.2 NEW ELEMENTS TO BOOST LIQUIDITY

4.2.1 Expanding the scope of eligible collaterals with corporate loans[16]

To ensure interbank liquidity in the long term the MNB decided to expand the scope of eligible collaterals in two phases. The world's leading central banks took a variety of actions and measures in early 2020 to manage turbulences in the market generated by the coronavirus pandemic, aiming to ease the interest conditions, re-launch asset purchase programmes and boost interbank liquidity. Keeping up adequate liquidity is specifically crucial for the continued functionality of various market segments and for keeping credit channels from choking up. The MNB used to accept a wide variety of securities as collaterals[17], however, the scope of eligible collaterals did not include other instruments. The total amount of eligible securities owned by banks was approx. HUF 8,000 billion at end-March, but this portfolio was not evenly distributed across banks. The formalised practice applied by the ECB since 2012 shows (see text in box) that larger corporate claims carry lower credit risks. The domestic corporate HUF and FX portfolio is worth approx. HUF 3,700 billion. As a result of the 70% acceptance rate[18] the acceptance of these loans increased the potentially accessible liquidity by approx. HUF 2,600 billion. Having assessed the credit risks the MNB extended the definition of large corporate loans to credit claims covered by contracts under the Hungarian law, with outstanding principal debts over HUF 1 billion. The portfolio of eligible receivables was increased as a consequence by another approx. HUF 800 billion.[19]

ECB's practice regarding corporate loans

Credit claims (i.e. bank loans) constituted an increasingly material element of collaterals accepted by the Eurosystem in the practice of the European Central Bank's loan transactions in recent years, in the wake of the 2008 crisis. Accordingly, techniques and procedures applied in using credit claims as collateral security have become a key element in the implementation of the euro area monetary policy. The processes relating to credit claims as collateral are usually more complex than in regard to marketable securities that are traded regulated markets or other markets accepted by the Eurosystem.

In response to the turbulence triggered by the COVID-19 pandemic on 7 April 2020 the ECB decided to expand the credit claims acceptance framework (ACC) introduced in 2011.[20] It expanded the range of claims regarded as eligible for use as collaterals and simplified access and reporting for counterparties. It also increased the possible ratio of unsecured credit claims provided in banking groups, from 2.5 to 10 percent. The ECB restored the acceptability of Greek securities. It raised the acceptability rate to 80 percent across the board. At the same time, the ECB also took steps towards the acceptability of credit claims of smaller companies as well besides the large corporates, as collateral in monetary policy transactions, to maintain interbank liquidity together with the corporate lending dynamic during the crisis.

[16] See MNB's press release of 23 March 2020.

[17] Including – in addition to government securities that may be regarded as conventional collaterals – mortgage bonds, bonds guaranteed by OBA (National Deposit Insurance Fund) and BEVA (National Investor Protection Fund), as well as corporate bods.

[18] For the collateral evaluation document see: https://www.mnb.hu/letoltes/risk-management-parameters-applied-to-eligible-collaterals-accepted-by-the-mnb-effective-from-may-11-2020.pdf (effective between 23 March 2020 and 11 May 2020). Other categories were added subsequently.

[19] As a consequence of the expansion, although the part of the corporate loans below HUF 1 billion was subtracted from the portfolio of eligible collaterals, yet it is still more than twice exceeded by the portfolio of SME loans over HUF 1 billion. See the MNB's terms and conditions in effect since 11 May 2020: https://www.mnb.hu/letoltes/uzleti-feltetelek-20200511-en.pdf

[20] See ECB's communication of 7 April 2020.

4.2.2 Targeted expansion of central bank counterparties by including investment funds[21]

As part of its crisis management efforts the MNB adopted a series of mutually complementary decisions to widen the central bank's instruments for investment funds as much as possible. The total portfolio of investment units in the market was worth HUF 7,190 billion in terms of asset value. The total portfolio held by the Hungarian population exceeded HUF 3,500 at end-March, making this sector crucially important in maintaining financial stability. Accordingly, as befits the role of investment funds, public and open-ended securities funds managed by the 10 largest investment funds with registered offices in Hungary jointed the group of MNB's counterparties in the government bond purchase programme and the Bond Funding for Growth Scheme. On the other hand, investment funds were now also provided with access to collateralised loans from the central bank, and, thirdly, the central bank expanded the scope of eligible collaterals with HUF investment units issued by securities and real estate funds.

Investment funds can access longer term collateralised loans indirectly, through counterparty credit institutions or directly, by blocking their own collateral coverage. Investment funds may – since 4 May 2020 – bid for central bank's 3 and 5-year collateralised loan tenders (besides the 3, 6 and 12-month ones), while they may repay the loans at any time before maturity date.[22] Any public open-ended investment fund that does not qualify as an undertaking for collective investment in transferable securities (UCITS) has access to such loans, either via banks or directly. Indirect borrowing may take place through the fund manager's account managing bank, where the investment fund can use collateral provided by a domestic credit institution based on an agreement with a counterparty credit institution. In the second phase the investment funds concerned were also provided with direct access to collateralised loans.

Public and open-ended securities funds managed by the 10 largest investment fund managers are allowed to participate in the Bond Funding for Growth Scheme (BFGS) and in purchasing government securities. In addition to banks playing a dominant role in the sovereign debt market investment funds are also allowed to participate in the government security purchase programme launched on 4 May 2020, through the most important investment fund managers. The MNB enabled public and open-ended securities funds managed by the 10 largest investment fund managers having their registered offices in Hungary to participate in the programmes. In the central bank's government securities auctions each fund manager may place aggregated bids on behalf of up to 3 funds under its management for each security, and funds are also included in the potential clientele in the course of individual – non-auction – purchases. The changes made to the Bond Funding for Growth Scheme may result in the participation of a broader range of potential financing organisations in corporate bond auctions which may make issues even more successful, contributing thereby to the liquidity of the corporate bond market.

The acceptance of investment units as collateral may further increase the range of counterparty banks' eligible claims. The MNB has modified its Business Terms and Conditions in such a way that the scope of collaterals that can be accepted in the central bank's transactions is now expanded with the HUF investment units of open-ended public money market, liquidity, bond and real estate funds. Depending on the assets held by the funds the applied haircuts were set in the 5-60 percent range.[23] Thus the acceptance value of the eligible collateral items has, in an aggregate, increased by HUF 1,400 billion. Only credit institutions qualifying as monetary policy counterparties may have investment units in their ownership gridlocked as collateral, while the investment funds themselves are not allowed to.

4.2.3 Introduction of the central bank's long-term loan facility[24]

On 24 March the MNB introduced its fixed-rate collateralised loan facility with a maturity period of up to 5 years, in order to ease the money market tensions that built up at the beginning of the year. To mitigate the money market turbulence caused by the coronavirus pandemic the central bank announced a number of measures relating to the instruments at its disposal. In this context it introduced a long term – up to 5 years – fixed-rate (equalling at least the central bank's policy rate) collateralised loan facility to contribute to liquidity management on a permanent basis over

[21] See the MNB's press release of 30 April 2020.
[22] See the Information for investment funds in force from 27 May 2020: https://www.mnb.hu/letoltes/tajekoztato-fedezetthitel-befalapok-20200521-en.pdf
[23] For the MNB's effective haircut table, see the MNB website.
[24] See MNB's press release of 24 March 2020.

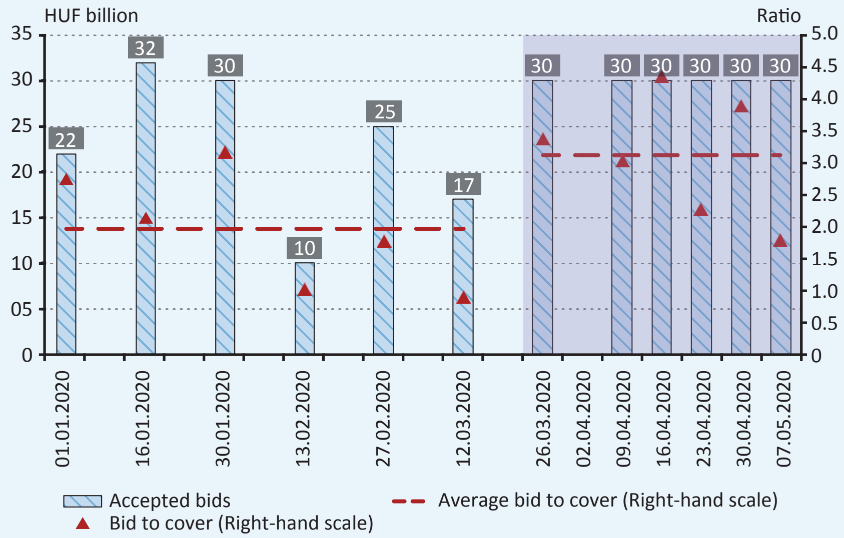
longer maturity periods and at the same time to the stability of the relevant financial markets to supplement its swap instrument providing HUF liquidity, one that had already been actively used earlier. The loan facility was introduced with 3, 6 and 12-month, as well as 3 and 5-year maturity periods.

The collateralised loan facility had provided the banking system with long term liquidity of nearly HUF 1,000 billion by end-May. The funds raised through the long term loan tender are available for banks for use from two angles: on the one hand, they can invest them in long term fixed-rate instruments and on the other hand they can improve their structure of liabilities with the fixed-rate loan. The long-term loan facility can thus improve the banking system's balance sheet in a number of ways, while through asset purchases the instrument not only improves the banking system's liquidity, but also benefits the entire yield environment. By the end of May the central bank provided long term funds of nearly HUF 1,000 billion for the banking system through the new facility. The facility is a fixed-rate product in accordance with the monetary policy and macro-prudential considerations applying to the MNB's other long-term facilities as well.

Experiences with the long-term loan tenders to date

Yields have subsided and demand has increased at the auctions organised by the Government Debt Management Agency (ÁKK) since the announcement of the loan tenders. ÁKK's auction calendar now schedules weekly tenders for 3-5-year bonds since the announcement of the long-term loan tenders. In parallel with the announcement of the tenders the average yields on the three-year bonds have come down as demand has gone slightly up. Demand for the five-year bonds was rather modest at the end of February and at the beginning of March, in some auctions falling short of the amount offered. In the wake of the announcement of the loan facility the average excess demand increased (Figure 9)

Figure 9
ÁKK's 5-year government bond auctions in 2020
Accepted amount Excess Demand (scale on right) Average excess demand (scale on right)



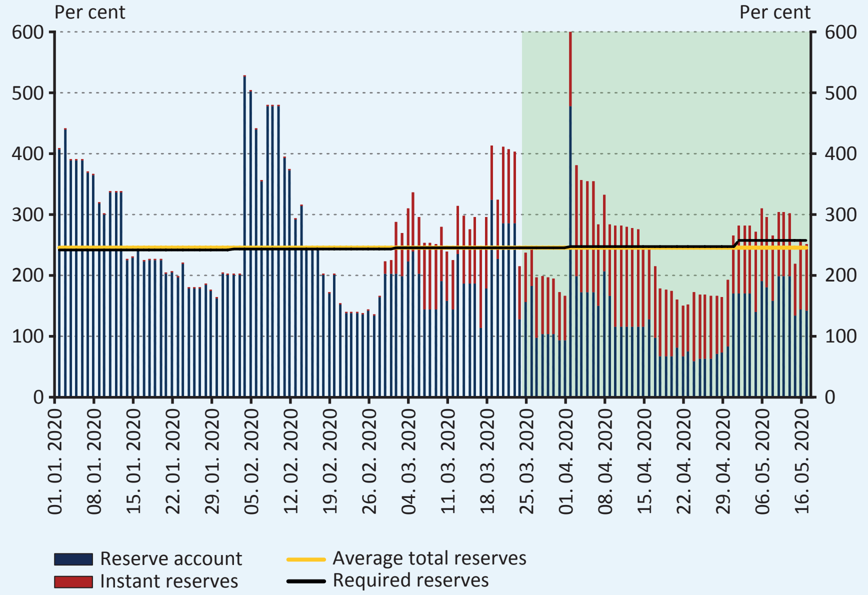
Source: ÁKK.

4.2.4 Suspended sanctioning of under-reserving[25]

On 24 March 2020 the central bank relieved its counterparty credit institutions operating under an obligation to keep reserves, from the legal consequences of non-performance of the obligation to hold reserves. The decision was made immediately effective, and the credit institutions concerned were permitted not comply with the provision concerning the mandatory reserve from the March 2020 reserve period. The introduction of the new measure resulted in a nearly HUF 250 billion increase in the banking system's free liquidity. In March 2020 this easing was highly important for both the banking system and the public finance system with a view to the money market turbulence triggered by COVID-19. The suspension of banks' obligation to hold reserves however, may make their lives easier even in the medium term in addition to dampening the initial shock, while the cash settlement systems continue operating reliably.

Liquidity management in the banking system was restructured in March through the suspension of the requirement to hold reserves and the banks' adaptation of the instant settlement system. Since the introduction of the instant payment system in early March 2020 – with settlement transactions being carried out on a continuous basis – banks have been keeping larger balances on their instant accounts besides their reserve accounts, as one of credit institutions' short term liquidity management tools. The suspension on 24 March of the sanction relating to the mandatory reserve obligation did not change this practice because the central bank continues to pay its policy rate on the current amounts of the mandatory reserves for the banks, on both the amounts kept on the reserve account and the instant reserves. Banks may reduce their balances on their payment accounts even below the average amounts as per the earlier obligation, however, the previous interest rate applying to excess reserve amounts continues to apply to balances exceeding the mandatory reserve.[26] In line with this measure, the balances on the reserve accounts have decreased, and part of the balance is present on the instant accounts. The combination of the two balances in the current framework is regarded to be stable (Figure 10).

Figure 10
Reserves held by counterparty banks, January – May 2020



Note: Monthly seasonality used to be caused by the instrument's monthly averaging mechanism.
Source: MNB.

[25] See last paragraph in MNB's press release of 24 March 2020.
[26] It's current value equals the O/N deposit rate – 15 basis points.

4.3 INSTRUMENTS ALLOWING A MORE FLEXIBLE SHAPING OF SHORT-TERM YIELDS

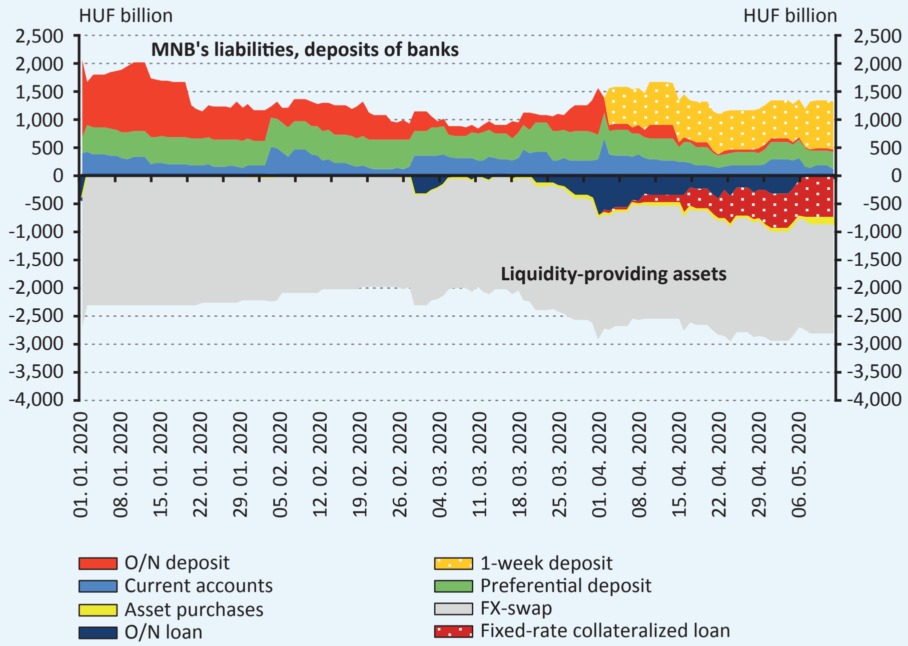
4.3.1 Activation of the one-week deposit

On 1 April 2020 the MNB activated its one-week deposit instrument, which plays a prominent part in absorbing bank liquidity and thus it has an important role in monetary transmission. The one-week central bank deposit had been a part of the central bank toolkit since the introduction of the quantitative restriction in the autumn of 2016, when the objective assigned to the instrument had still been the fine tuning of the crowded-out liquidity (however, it had not been used during the period of the application of the quantitative restriction). Since the spring of 2020 the fine tuning of the liquidity path has not been the point any longer, but the facility had been activated in order to support banks' liquidity management, and then it became one of the main sterilisation instruments of banks. Following the activation of the facility, banks were able to place one-week deposits with the central bank at the policy rate, but at the same time, pursuant to the decision of the Monetary Council, within the interest rate corridor the interest rate on the one-week deposit may deviate from the policy rate, either upwards or downwards.[27]

Experiences with the one-week deposit tenders to date

The MNB announces the deposit tender every week; the first tender was held on 2 April 2020. At the first tenders, the amount of liquidity placed by banks was between HUF 655 and 842 billion, showing ample demand for the instrument. In parallel with the introduction of the new sterilisation instrument, the amount of banking sector liquidity reflected in the O/N deposit declined markedly. The liquidity tied up in the one-week deposit is a good reflection of the liquidity providing instruments of the central bank (long-term collateralised loan, asset purchases), while the liquidity effect of other autonomous factors is also reflected in the use of the instrument.

Figure 11
Banks' central bank deposits and the liquidity providing instruments of the central bank



Source: MNB.

[27] See the announcement about the one-week deposit on the MNB's website: The National Bank of Hungary calls for regular tenders on one-week deposit instrument at policy rate, 1 April 2020

4.3.2 Rendering the interest rate corridor symmetrical

On 7 April 2020 the Monetary Council decided to make the interest rate corridor symmetrical, providing flexibility for the implementation of monetary transmission on short maturities. In the quantitative restriction framework, as a result of changing the interest rate corridor several times, the policy rate meant the top of the interest rate corridor (see Chapter 2). This was in line with the monetary policy stance, i.e. with the maintaining of loose monetary conditions. However, the different money market environment made it necessary for the MNB to be able to shape short-term interest rates in a flexible manner upwards as well. While the O/N deposit rate and the policy rate remained unchanged at -0.05 percent and 0.9 percent, respectively, the central bank raised the overnight and one-week collateralised lending rates to 1.85 percent from the previous level, which had corresponded to the policy rate. As a result, again the policy rate is the middle of the interest rate corridor, following an asymmetrical interest rate corridor.[28]

4.4 INTRODUCTION OF INSTRUMENTS AFFECTING LONG-TERM YIELDS[29]

4.4.1 Expansion of the FGS, amendments to the conditions of the BGS and the preferential deposit

In April 2020 the MNB decided to restructure the Bond Funding for Growth Scheme and to launch the Funding for Growth Scheme Go! With these programmes, the central bank supports the financing of the domestic corporate sector. In order to provide favourable funding for Hungarian small and medium-sized enterprises, in April 2020 the central bank launched a scheme called Funding for Growth Scheme Go! (FGS Go!) with a total appropriation of HUF 1500 billion, providing cheap and stable funds for lending to the SME sector. The FGS Go! is identical to the earlier phases of the FGS in terms of its key parameters, i.e. the MNB provides refinancing loans to credit institutions at a zero interest rate, and they may lend on to SMEs at an interest rate of maximum 2.5 percent. In addition to launching the FGS Go!, the MNB amended the main parameters of its bond purchase programme in order to provide further support to the domestic corporate sector. Following 7 April 2020, within the framework of the Bond Funding for Growth Scheme (BGS) the MNB's maximum amount of exposure to a given group of corporations increased from HUF 20 billion to HUF 50 billion, and the maturity of securities eligible for purchase changed from 10 years to 20 years. The MNB's measures contribute to the corporate sector's access to stable and long-term funding.

In order to encourage participation in the BGS and the FGS Go! schemes, the MNB expanded its preferential deposit facility that can be used in connection with the schemes and transformed it into a tiered interest bearing one. Since March 2019 the preferential deposit facility has served the purpose of sterilising the FGS *Fix* and the additional liquidity resulting from the Bond Funding for Growth Scheme at the policy rate. At the same time, in order to encourage participation in the renewed Bond Funding for Growth Scheme and the FGS Go!, the MNB changed the interest rate of the preferential deposit into a tiered one. Accordingly, from May 2020 until end-June 2021, the deposit facility is already available at a 4 percent interest rate level in relation to the participation in the renewed BGS and FGS Go! schemes.

4.4.2 Long-term credit facility and the launching of the asset purchase programmes

Through its 3- and 5-year maturities, the long-term credit facility, which is also of key importance in terms of providing adequate liquidity, also allows the influencing of the middle section of the yield curve by the central bank. The long-term credit facility plays a prominent role in monetary policy transmission over almost the entire section of the yield curve. The fixed interest rate of the instrument is in line with other instruments of the MNB and prudential aspects. The instrument is presented in more detail in Subchapter 4.2.3.

The Monetary Council decided on 7 April 2020 to launch the central bank asset purchases, i.e. the government securities and mortgage bond purchase programmes. The strengthening in risk aversion in view of the coronavirus pandemic had an unfavourable impact on the liquidity of domestic markets as well; volatility increased considerably, and long-term yields rose. Therefore, in addition to the measures targeting the short-term yields, in the spring of 2020 the MNB introduced

[28] See the press release on the Monetary Council meeting of 7 April 2020.
[29] The related measures were also taken at the Monetary Council meeting on 7 April 2020.

long-side measures as well. By this, on the short side of the yield curve the MNB is shaping a yield level that ensures the stability of financial and economic developments, while with the easing of long-side conditions and the reduction of the steepness of the yield curve it contributes to all economic agents' access to cheap and predictable funding.

The MNB's government securities purchase programme works as a 'backstop', and its objective is to improve monetary transmission. According to the Monetary Council's press release of 28 April, the central bank will continue the government securities purchases as long as economic and financial developments arising from the coronavirus pandemic corroborate it. With the government securities purchases the MNB achieved the set targets within a short time; the central bank basically considers the programme as a crisis management programme.

The strategic parameters of the MNB's government securities purchase programme are consistent with the practices of leading central banks. Following global central banks' programmes that have been going on for years, the central banks of several smaller developed countries and of certain countries in the region also launched asset purchase programmes. Of the countries in the Central and East European region, central banks started asset purchases in Poland, Romania and Croatia, and the possibility of launching government securities purchases arose in the Czech Republic as well. The added value of the Hungarian government securities purchase programme results from the fact that while it is an integral part of the central bank toolkit, it allows the influencing of monetary conditions over the entire yield curve. In line with the strategic parameters of the programme, the purchases cover forint-denominated, fixed-rate government securities, on the condition that, in line with the ECB's practices, the amount to be purchased of any securities series may not exceed 33 percent of stocks outstanding. Central bank purchases may extend to any maturities that may be justified by the facilitating of efficient monetary transmission and/or the supporting of the liquidity of the government securities market. Consistent with the relevant Hungarian and EU regulations, the MNB's government securities purchases take place in the secondary market at auctions and within the framework of bilateral transactions. In addition to the most important banks in terms of market activity, investment fund managers have also been involved in order to reach the widest possible range of partners.

The mortgage bond market is also of crucial importance in terms of monetary transmission, developments in lending as well as financial stability. This is why the MNB launched its first mortgage bond purchase programme in 2018, which efficiently reduced market yields, and created favourable conditions for primary market issuances. The success of the initiative is shown by the fact that within the programme banks issued mortgage bonds in a total nominal value of HUF 548 billion, of which the MNB's purchases amounted to HUF 256 billion. Since the phasing out of the programme at end-December 2018, moderate turnover and rising premia have characterised the primary market. There was a major deterioration in the general conditions in the spring of 2020. The strengthening in risk aversion sentiment in international and domestic markets entailed a drastic decline in liquidity and a rise in the volatility of quotations, which warranted central bank intervention.

The yield spread declined considerably following the announcement of the government securities purchase programme

The supply was ample at the first two government securities purchase auctions, in addition to which the MNB purchased government securities within the framework of individual, bilateral transactions as well. At the MNB's government securities purchase auctions held on 5 May and 12 May 2020, market participants submitted offers totalling HUF 211 billion, which is considered ample demand. Of this, the MNB accepted an amount of HUF 75 billion, regulating the acceptance by series so that of the securities announced for purchase it could comply with the ratio of stocks outstanding in the market. Between the beginning of the purchases on 5 May 2020 and mid-May, government securities worth a total HUF 119 billion became owned by the MNB. The average residual maturity of the government securities holdings is 11.6 years, the residual maturity of 12 percent of the papers is between 5 and 10 years, while it exceeds 10 years in the case of 88 percent. Long-term yields have declined, average market turnover has increased, and market liquidity has improved since the announcement of the programme. Yield spreads were down by some 50 basis points compared to German and Polish securities.

Under the relaunched mortgage bond purchase programme the MNB purchases fixed-rate, forint-denominated mortgage bonds with residual maturities of at least one year in the primary and secondary markets. In order to deepen the liquidity and increase the transparency of the market, a further condition was that only publicly issued mortgage bonds listed on the Budapest Stock Exchange were eligible. All the five mortgage banks applied for participation in the programme, allowing the strengthening of monetary transmission in the entire market. Following the start of secondary market purchases at the beginning of May 2020, the MNB efficiently reduced market yields, thus creating favourable conditions for primary market issuances.

The government securities and mortgage bond purchase programmes highly comply with the MNB's other monetary policy instruments. The active use of the collateralised lending facility complements the MNB's asset purchase programmes launched on 4 May. The importance of long-term yields has increased considerably in recent years. Consequently, the strengthening of monetary transmission has also become a crucially important central bank objective in the longer segments of the yield curve. Widening the central bank toolkit contributes to the MNB's ability to react to capital market trends more efficiently and reduce the volatility of yield levels.

The central bank swap facility continues to be an actively applied element of the central bank toolkit

The main objective of the forint liquidity providing swap instrument introduced by the MNB in the autumn of 2016 was to allow the MNB to manage liquidity absorbing shocks and thus to ensure the targeted level of crowded-out liquidity. Reacting to the coronavirus pandemic, the MNB introduced various short- and long-term instruments with which it is able to expand liquidity. Nevertheless, there are several arguments for the active application of the FX swap instrument:

- In view of its liquidity and wide range of applicability, the FX swap market is of crucial importance during the implementation of monetary policy. Smooth functioning of the FX swap market plays a key role in terms of the efficient operation of the interest rate transmission mechanism. The FX swap market plays an important part because, among various factors, FX swap market prices are also taken into account by BUBOR market makers, and through the arbitrage activity the FX swap market and the interbank loan/deposit market are closely correlated.

- With its continuous swap market presence, the MNB is able to influence swap market yields and through them the other forint yields as well.

- The FX swap instrument means extending a loan with foreign exchange as collateral. In its collateralised lending the MNB accepts certain foreign exchange assets (such as FX government securities, corporate loans), but it does not accept foreign currency deposits (liquidity), and thus from this aspect FX swaps complement central bank collateralised loans.

In its previous professional communication the MNB already made it clear that the change in the swap stock in itself cannot be considered authoritative in terms of the monetary policy stance (Virág–Kolozsi, 2020). The role of the swap stock has changed in the toolkit created as a response to the coronavirus pandemic, as the central bank does not determine a quarterly crowding out target value. Now a change in the swap stock may be reflected in the demand for the one-week deposit facility and not in the crowding out. Nevertheless, the instrument is still of key importance, which is corroborated by the fact that despite the overhaul of its toolkit, the MNB's weekly FX swap tenders are organised regularly.

4.5 FLEXIBLE FRAMEWORK TO SERVE CENTRAL BANK OBJECTIVES

The restructuring of the toolkit allows the MNB to intervene in market segments that are important from a monetary policy aspect, both on the short and long segments. As presented in the previous parts, the MNB made various amendments and expansions to its toolkit regarding the instruments that affect both short- and long-term yields. The changes allow the MNB to provide liquidity and influence monetary conditions in a targeted manner in the market segments and various maturity segments that are important for it.

As a result of the above amendments, monetary policy instruments have become more flexible. An important element of the framework applied as of the autumn of 2016 was the setting and reaching of a quarterly target level concerning the crowded-out liquidity. The crowded-out liquidity with an interest rate other than the policy rate (the sum of the O/N deposit and excessive reserves) as operational target variable lost its importance with the introduction of the one-week deposit. In the changed toolkit, on the yield curve section between the shortest, overnight and the 3-month maturities the yields conform to the interest rate of the one-week deposit.

In addition to the instruments affecting short-term yields, the MNB's toolkit contains now new instruments as well, beside FGS and BGSthat influence long-term yields, which allows influencing the entire yield curve in line with monetary policy objectives. First the MNB had introduced long-term, collateralised lending facilities, and then it launched its asset purchase programmes. The instruments that affect long-term yields highly comply with the MNB's other monetary policy instruments. The asset purchases are sterilised by the MNB in the one-week deposit, and thus the liquidity effect of the asset purchases is not reflected in the decline in short-term yields. Widening the central bank toolkit contributes to the MNB's ability to react to capital market trends more efficiently and reduce the volatility of yield levels. The two types of long-term instruments complement one another through the maturities. The central bank applies the long-term collateralised lending up to a maturity of 5 years, whereas on the basis of the purchases in the first period, government securities purchases basically focus on longer maturities.

With the restructuring and expansion of the toolkit, the MNB increased its monetary policy leeway, ensuring its ability to react in the future to extraordinary challenges in each market segment in a rapid and adequate manner. The Monetary Council continuously evaluates the incoming data and the changes in prospects. In accordance with its statutory mandate, the Magyar Nemzeti Bank applies all the instruments that are at its disposal in order to achieve price stability and to support the Hungarian economic and financial system.

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