

Methodological notes

To the monthly publication of the MNB's statistical balance sheet

1. Calculation of average monthly stocks and the average monthly exchange rates

The average stocks and exchange rates are calculated using the daily closing data. In calculating the averages, stocks and exchange rates for public holidays or non-working days are identical with the data at the end of the previous working day.

2. The relationship between the stocks in tables showing average monthly and end-of-month stocks published on the 'Summary' page in the Information release

Overnight loans are not recorded in the row 'Other types of lending to credit institutions' in the statistical balance sheet, containing average monthly stocks. These stocks are shown under other assets.

On the assets side of the table presenting end-of-month stocks, the contents of row 'Other assets' in the average balance sheet records correspond to the combination of rows 'Mortgage bonds issued by credit institutions', 'Government-guaranteed bonds issued by credit institutions', 'Bonds issued by non-financial corporations', 'Government bonds issued by the central government' 'Funding for Growth Scheme refinancing loans to credit institutions', 'Other loans to credit institutions' and 'Other assets'.

On the liabilities side, the contents of row 'Deposits of MFIs' are identical with the contents of rows:

- until March 2022: 'Current account balances of credit institutions - IMPS accounts', 'Current account balances of credit institutions – without IMPS accounts', 'Overnight deposits of credit institutions - preferential deposits', 'Overnight deposits of credit institutions - without preferential deposits', 'One-week deposits of credit institutions', 'Other HUF deposits of credit institutions' and 'Foreign currency deposits of credit institutions' combined in the average balance sheet;
- from April 2022 until September 2022: 'Current account balances of credit institutions - IMPS accounts', 'Current account balances of credit institutions – without IMPS accounts', 'Overnight deposits of credit institutions', 'One-week deposits of credit institutions', 'Other HUF deposits of credit institutions' and 'Foreign currency deposits of credit institutions' combined in the average balance sheet;
- in October 2022: 'Current account balances of credit institutions - IMPS accounts', 'Current account balances of credit institutions – without IMPS accounts', 'Overnight deposits of credit institutions – quick tender', 'Overnight deposits of credit institutions – without quick tender', 'One-week deposits of credit institutions', 'Variable rate deposits of credit institutions', 'Other HUF deposits of credit institutions' and 'Foreign currency deposits of credit institutions' combined in the average balance sheet;
- from November 2022 until October 2023: 'Current account balances of credit institutions - IMPS accounts', 'Current account balances of credit institutions – without IMPS accounts', 'Overnight deposits of credit institutions – quick tender', 'Overnight deposits of credit institutions – without quick tender', 'Variable rate deposits of credit institutions', 'Other HUF deposits of credit institutions' and 'Foreign currency deposits of credit institutions' combined in the average balance sheet;
- from November 2023 until January 2024: 'Current account balances of credit institutions - IMPS accounts', 'Current account balances of credit institutions – without IMPS accounts', 'Overnight deposits of credit institutions', 'Variable rate deposits of credit institutions', 'Other HUF deposits of credit institutions' and 'Foreign currency deposits of credit institutions' combined in the average balance sheet;

credit institutions' and 'Foreign currency deposits of credit institutions' combined in the average balance sheet;

- from February 2024: 'Current account balances of credit institutions - IMPS accounts', 'Current account balances of credit institutions – without IMPS accounts', 'Overnight deposits of credit institutions', 'Other HUF deposits of credit institutions' and 'Foreign currency deposits of credit institutions' combined in the average balance sheet.

3. Bills issued by the MNB in the Information release and in the Internet time series

In the tables presenting the average monthly and end-of-month stocks and published on the 'Summary' and 'Changes in liabilities' pages in the Information release, the stock of bills, issued by the MNB, is recorded in one row on an aggregated basis, i.e. it is not broken down to show holdings by residents and nonresidents.

In the publication titled '*Monetary Statistics*',

- on the sheets *Table 1.a.2* and *Table 1.a.4*, the part of the end-of-month stock held by residents is published separately within the stock of 'Debt securities issued (held by residents)' in the column 'HUF'. Non-residents' holdings are presented in the column "Short-term MNB discount bills held by non-residents" as part of 'Total External Liabilities';
- on the sheet 'Table 1.a.5, the average stock of short-term MNB discount bills is further broken down to show holdings by residents and non-residents.

4. Developments in the MNB's key policy instrument

- Prior to 9 January 2007: two-week MNB deposit.
- Between 9 January 2007 and 5 August 2014: two-week MNB bill.
- Between 6 August 2014 and 22 September 2015: two-week MNB deposit. (Under the self-financing programme announced on 23 April 2014, the MNB re-introduced the two-week deposit as its key policy instrument.)
- Between 23 September 2015 and 18 December 2018: three-month MNB deposit. (Until August 2016, tenders of the three-month deposit were held at a weekly frequency and subsequently at a monthly frequency. From October 2016, the key policy instrument was available at tenders with quantity restrictions.)
- From 19 December 2018, reserve requirements have been the MNB's key policy instrument.

5. Developments in credit institutions' reserve requirements¹

Developments in the monetary base (M0) and the stock of current account deposits is affected by the size of the reserve requirement ratio. The reserve requirement ratio for credit institutions is set by the MNB.

- Prior to 1 August 2002: 12%.
- Between 1 August 2002 and 30 November 2008: 5%.
- Between 1 December 2008 and 30 September 2010: 2%.
- Between 1 October 2010 and 30 November 2015: optional reserve requirement ratio. Credit institutions subject to reserve requirements were allowed to choose one of the 2%, 3%, 4% and 5% ratios at most every 6 months. (In the absence of such a choice, the MNB imposed the lowest, 2%, ratio.)
- Between 1 December 2015 and 30 November 2016: 2%.
- Between 1 December 2016 and 30 September 2022: 1%.
- Between 1 October 2022 and 31 March 2023: optional reserve requirement ratio. Credit institutions subject to reserve requirements could choose between rates 5, 6, 7, 8, 9 and 10% on a quarterly basis. The minimum reserve requirement of 5% had to be met daily. For the optional reserve ratio above 5%, the regulation required compliance in terms of a monthly average.
- Between 1 April 2023 and 30 June 2023: the system of the optional reserve requirement ratio was maintained, but its rate increased. Credit institutions subject to reserve requirements could choose between rates 10, 11, 12, 13, 14 and 15% on a quarterly basis. The minimum reserve requirement of 10% also had to be met daily. For the optional reserve ratio above 10%, the regulation requires compliance in terms of a monthly average.
- Between 1 July 2023 and 31 December 2023: with no change in the optional rates, the central bank required reserves were calculated on the basis of liabilities subject to reserve requirements reported by credit institutions for 31 March 2023 on a monthly basis. Therefore, the monthly amount of the required reserves could only change quarterly, as a result of a movement in the optional - above the required 10% - reserve ratio chosen. Furthermore, starting from this period, the amount of HUF deposits held at MNB with the maturity of at least 14 days, were also be counted towards the compliance with the minimum reserves, up to the 15% of the minimum reserves, implying that from this date, the amount of the central bank reserves requirement were not exclusively reflected in credit institutions' current account balances.
- Between 1 January 2024 and 31 January 2024: as the optional reserve requirement ratio system was terminated, the prevailing level of the reserve ratio was set at 10%. The amount of the reserve requirements was still determined on the basis of the reserve liabilities reported for 31 March 2023, and forint deposits placed with the MNB for a minimum of 14 days continues were included in the reserve requirement for up to 15% of the minimum reserve requirement.
- Between 1 February 2024 and 29 February 2024: the reserve ratio remained at 10% and the reserve base was still set on the basis of the reserve liabilities reported for 31 March 2023, but as a result of the phasing out of the long-term deposit facility, the amount of the central bank reserves requirement was again reflected exclusively in the balance of credit institutions' bank accounts.

¹ Additional information is available on the website of the MNB via the link below:

<https://www.mnb.hu/en/monetarypolicy/monetary-policy-instruments/minimum-reserve-requirements>

- Between 1 March 2024 and 31 July 2025: the reserve ratio remained at 10%, however, the reserve base is calculated not on the basis of the end of month stocks but the monthly average stocks of liabilities subject to reserve requirements.
- From 1 August 2025: the reserve ratio decreases uniformly to 8%.

6. Difference between the MNB's accounting and statistical equity

Equity, and in particular balance sheet profit/loss, as shown in the MNB's statistical balance sheet is different from equity in the accounting balance sheet. This difference is due to the fact that while financial derivatives are recorded at market value in the statistical balance sheet, in the accounting balance sheet they are recorded at a value required by Government Decree 221/2000 on the special reporting and accounting requirements.

7. Difference in the stock of loans and deposits with credit institutions in the MNB's accounting and statistical balance sheets

Due to differences in the presentation of the stocks of collateral deposits linked to changes in the market value of futures, swaps and options transactions - known as margin accounts - the stocks of forint term loans with maturity of up to one year provided to domestic credit institutions by the MNB and term deposits placed by credit institutions with the MNB with also maturity of up to one year may differ in the MNB's statistical balance sheet and in its accounting reports from January 2023 onwards. The reason for the difference is that the stock of margin accounts is recorded in gross terms in the statistical balance sheet, i.e. individual accounts are shown on the assets or liabilities side depending on whether they represent a receivable or a payable item. However, in the accounting report, all margin accounts within the banking system are aggregated, and the sign of the resulting net amount determines where the aggregated stock is shown within the balance sheet.

Consistent with the principles of presentation applied in accounting reports, a net stock of margin accounts, aggregated for the entire banking system, was published in the statistical balance sheet before the end of January 2023 as short-term forint lending on the assets side or as short-term deposits on the liabilities side reflecting the sign of the balance itself.

8. Statistical treatment of credit institutions under liquidation or dissolution

Credit institutions under liquidation or dissolution are still in operation until the end of the liquidation/dissolution procedure. Such institutions are re-classified from credit institutions to the sector of other financial intermediaries in the MNB's statistical balance sheet and all other statistical statements.

The stocks of assets and liabilities vis-à-vis such institutions are shown under assets and liabilities vis-à-vis credit institutions' in the MNB's balance sheet for the last full month in which the organisation being dissolved functions as a credit institution. Assets and liabilities in the publication covering the following month are transferred as other volume change and not as transaction to assets and liabilities vis-à-vis other financial intermediaries.

9. Use of the JDemetra+ software in seasonal adjustment

Beginning with the release of January 2017 data, the MNB has migrated uniformly from the tool Demetra to the JDemetra+ software in producing seasonally adjusted data.

10. Reclassification of funds increasing the security of financial investments into central government

In accordance with the Eurostat's decision and in line with the methodology used by the Hungarian Central Statistical Office, funds increasing the security of financial investments have been removed from the financial corporate and non-financial corporate sectors and reclassified into the general government sector in monetary statistics from the end of July 2017 onwards. The sectoral reclassification affected the following institutions: National Deposit Insurance Fund, Investor Protection Fund, Guarantee Fund for Cooperative Credit Institutions, Compensation Fund, Resolution Fund, Hungarian Resolution Asset Management Plc, Resolution Receivable Management Plc, RESIDEAL Plc.

11. Treatment of repurchase transactions in the MNB's balance sheet

In accordance with the relevant international standards, in the statistical publications the owner of the securities may not change when repo transactions and securities lending transactions are carried out – the related financial flows must be accounted for as a credit or deposit asset or liability.

This is also the case where the object of a repo or securities lending transaction is an MNB bill issued by the MNB earlier, recorded on the liabilities side of the balance sheet.

12. Valuation of securities included in foreign exchange reserves

In the period to the February 2013 reference period, data on debt securities held as part of foreign exchange reserves among external assets on the assets side of the MNB's balance sheet were valued at 'bid' prices (as quoted by market makers), and subsequently at 'mid' prices (calculated as the average of bid and offer prices quoted by market makers). (The impact of the change in valuation on changes in stocks has been recorded as a price change in the March 2013 data as a price change in Table 4.11 of the publication.)

13. Recording IMF SDR stocks

The SDR stocks received from the International Monetary Fund (IMF) are recorded on the assets side of the MNB's balance sheet under 'External assets' while they are shown under 'External liabilities' on the liabilities side. These items are not to be considered as loans or deposits; therefore, time series detailing foreign loans and deposits do not contain SDR stocks.

The SDR allocations are shown as transactions in statistical publications and monthly changes in SDR value are recorded as exchange rate changes.

14. Data revision policy

Each publication is based on the latest data accessible at the time of the compilation of the current publication. Accordingly, data from the interactive charts and time series available on the MNB's website are adjusted backwards upon each publication in the event of modifications applied to the data for previous periods. However, no subsequent modifications are made to the information release in pdf format, produced using the interactive charts. As a result, there might be differences between the current

interactive charts and data in the time series, compared to the data in the pdf documents on earlier reference periods.