

31 July 2003

## PRESS RELEASE

### Consolidated balance sheet of MFI's: June 2003

*Starting from this press release, the MNB has changed the structure of its published balance sheets and tables (see Appendix 1). Simultaneously with this, the Bank publishes month-on-month indices, calculated from the trend data, for developments in the monetary aggregates (see Appendix 2).*

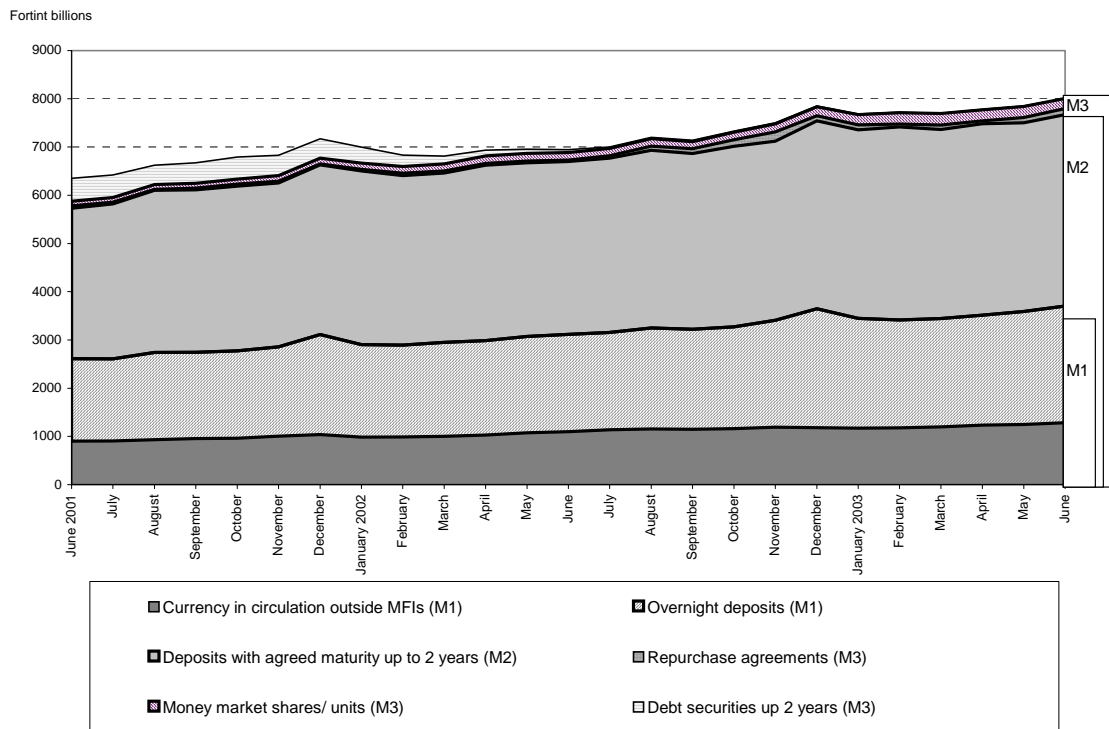
In June 2003, the monthly average stock of currency in circulation, calculated from daily data, was Ft 42.8 billion higher than in the preceding month. The monthly average stock of other monetary financial institutions' current account deposits increased by Ft 0.8 billion relative to May. Overnight deposits was the largest change, increasing by Ft 95.5 billion in one month. The annualised month-on-month growth index of the monetary base (M0) was 124% in June, its growth rate picking up 2.6 percentage points relative to May.

The annualised month-on-month growth index of the monetary aggregate M1 was 120.7% in June. The growth rate of the aggregate picked up 1.1 percentage points in one month. Growth in the monetary aggregate M2 increased by 3 percentage points relative to May, the annual index, derived from the trend, increasing by 18.3%. The growth rate of the monetary aggregate M3, calculated from the trend data, saw the largest change – it rose by 7 percentage points in the month under review, being 25.1% higher relative to a year earlier.

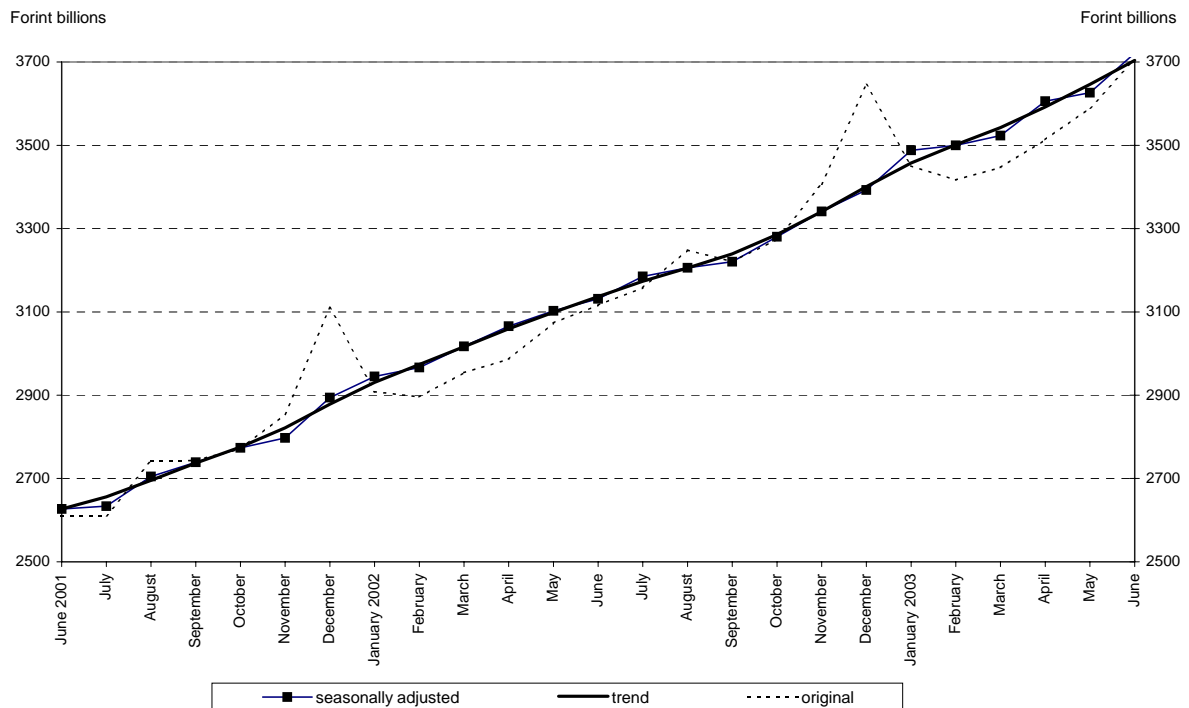
#### Annualised month-on-month growth in the monetary aggregates



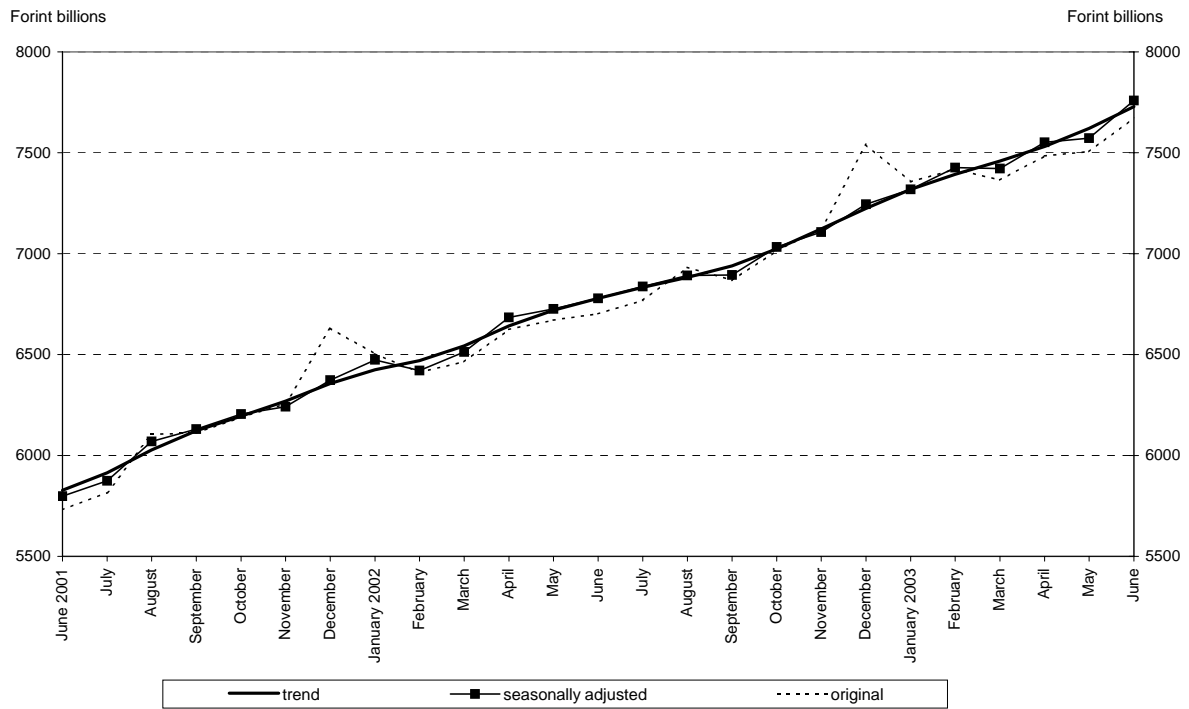
## Developments in the monetary aggregates



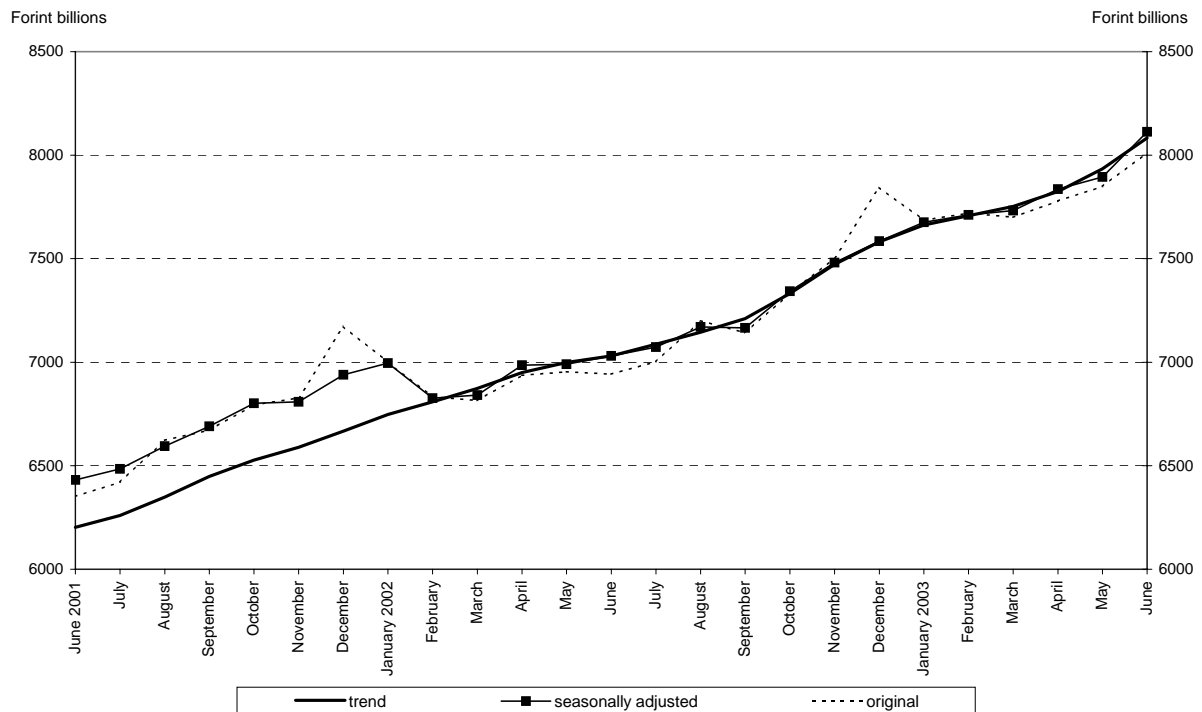
## M1



## M2

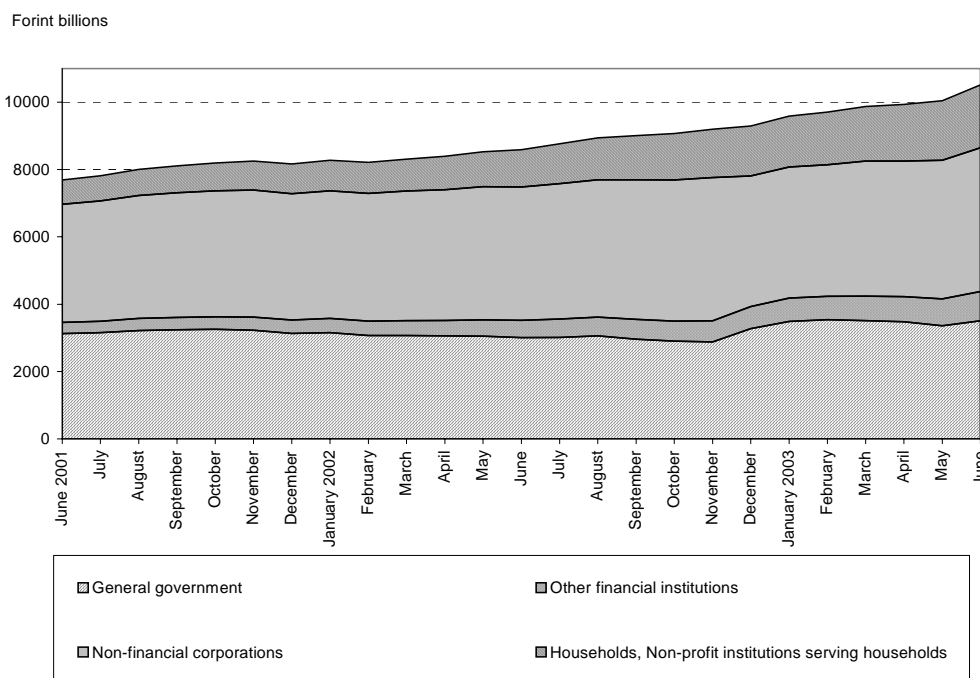


## M3<sup>a</sup>



<sup>a</sup> The trend data do not include outliers.

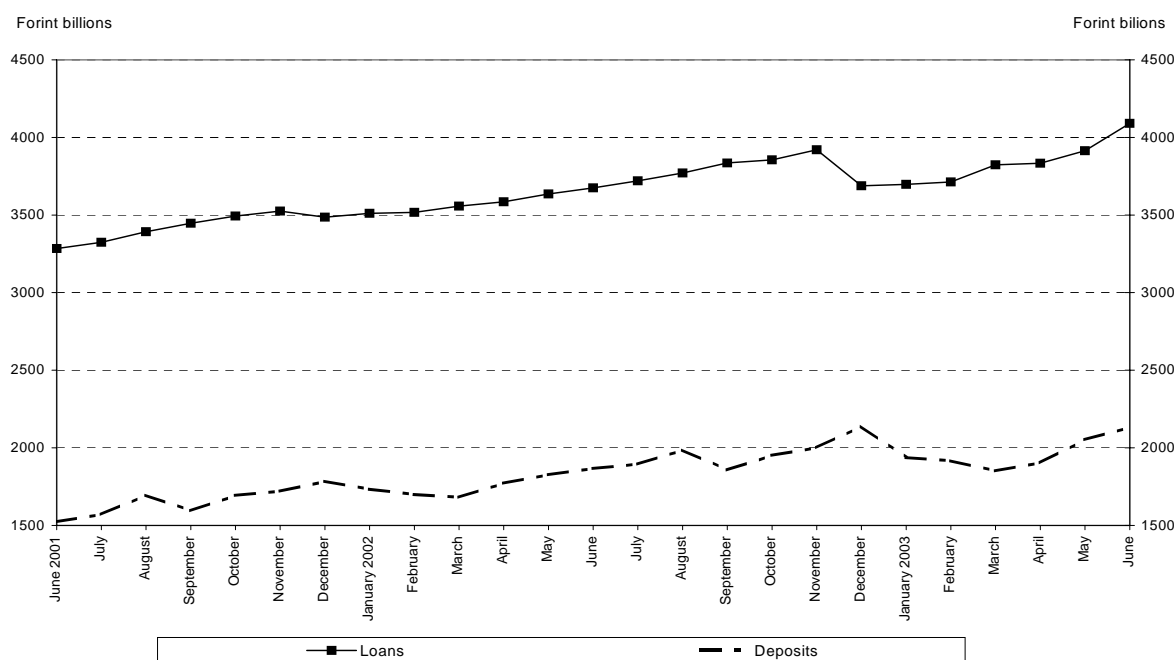
## Domestic assets



## Outstanding domestic loans

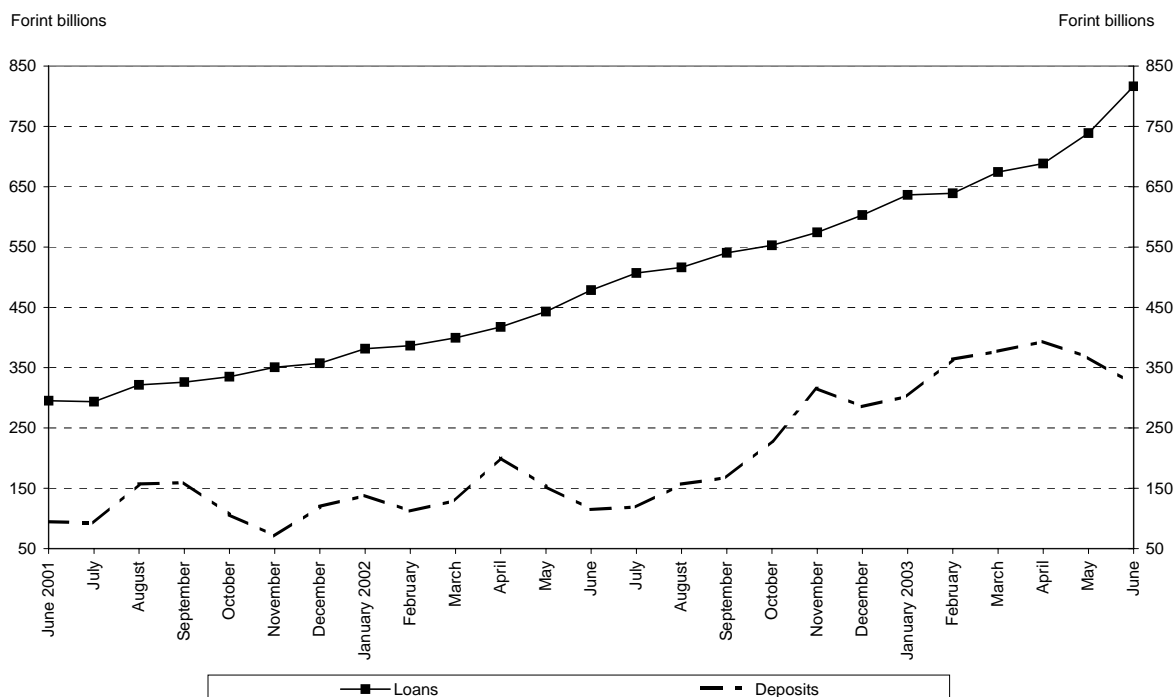
Outstanding borrowings of non-financial corporations increased by Ft 176.2 billion in the month. Here, loans with maturity up to one year rose by Ft 32.9 billion and those with maturity over one year by Ft 143.3 billion. Non-financial corporations' deposits increased by Ft 78.7 billion – overnight and current account deposits, and time deposits were Ft 48.8 billion and Ft 29.9 billion higher respectively.

## Non-financial corporations' loans and deposits



Deposits of other financial corporations increased by Ft 77.7 billion. The sector's deposits with monetary financial institutions fell by Ft 37.7 billion in one month – deposits of insurers and pension funds were Ft 7 billion higher and those of other financial intermediaries and financial auxiliaries Ft 44.7 billion lower. The stock of funds raised through repurchase agreements was Ft 15.6 billion higher relative to the preceding month.

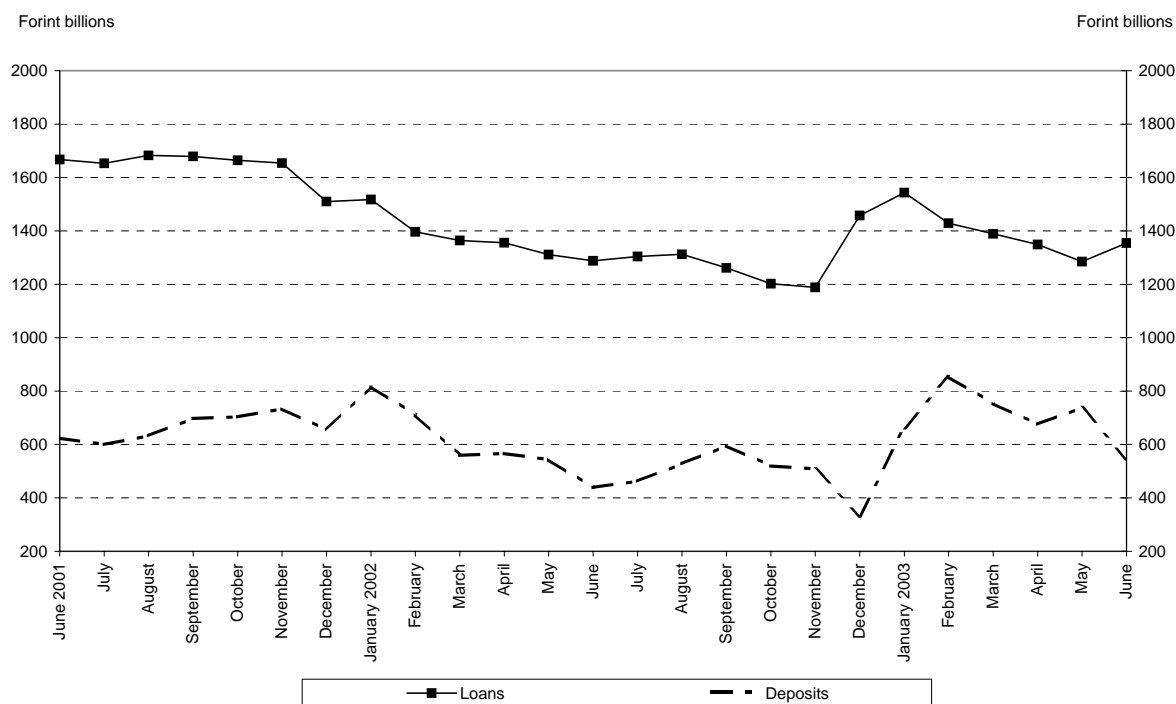
### Loans and deposits of other financial corporations



Loans granted by monetary financial institutions to general government increased by Ft 69.1 billion. Here, loans granted to the central government were Ft 65.6 billion higher and those granted to the local government sub-sector Ft 3.5 billion higher.

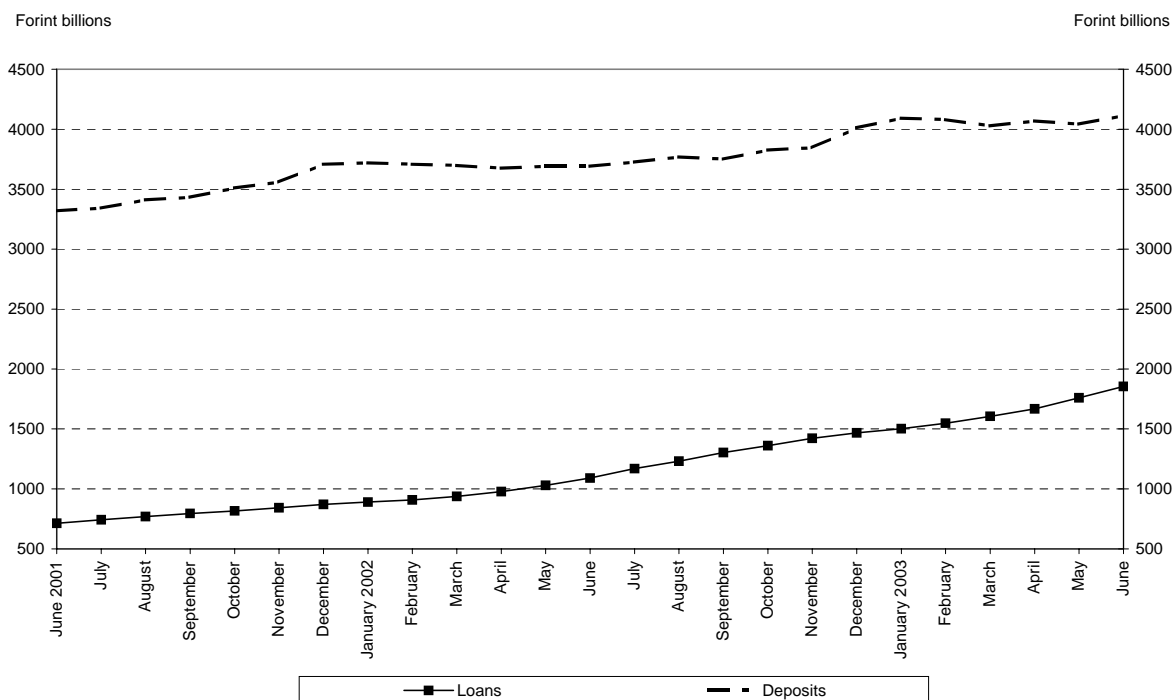
Deposits of general government fell by Ft 192.4 billion. Here, deposits of the central government were Ft 206.5 billion lower, due mainly to the fall in the sector's deposits with the MNB. By contrast, local government deposits rose by Ft 14.1 billion.

## Loans and deposits of general government



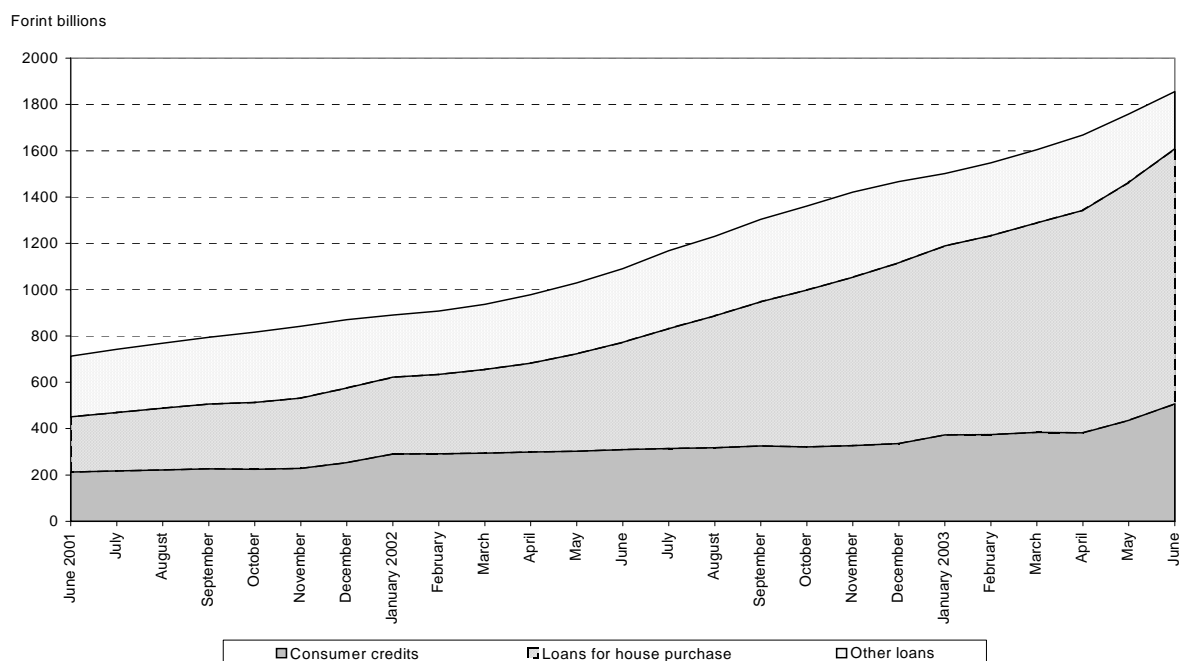
Loans granted to households increased by Ft 96.3 billion in June. The sector's deposits with other monetary financial institutions were Ft 70.1 billion higher relative to May.

## Loans and deposits of households



Within loans to households, housing loans continue to account for nearly 60% of the outstanding total. The robust rise in housing loans continued in the month under review.

## Loans to households

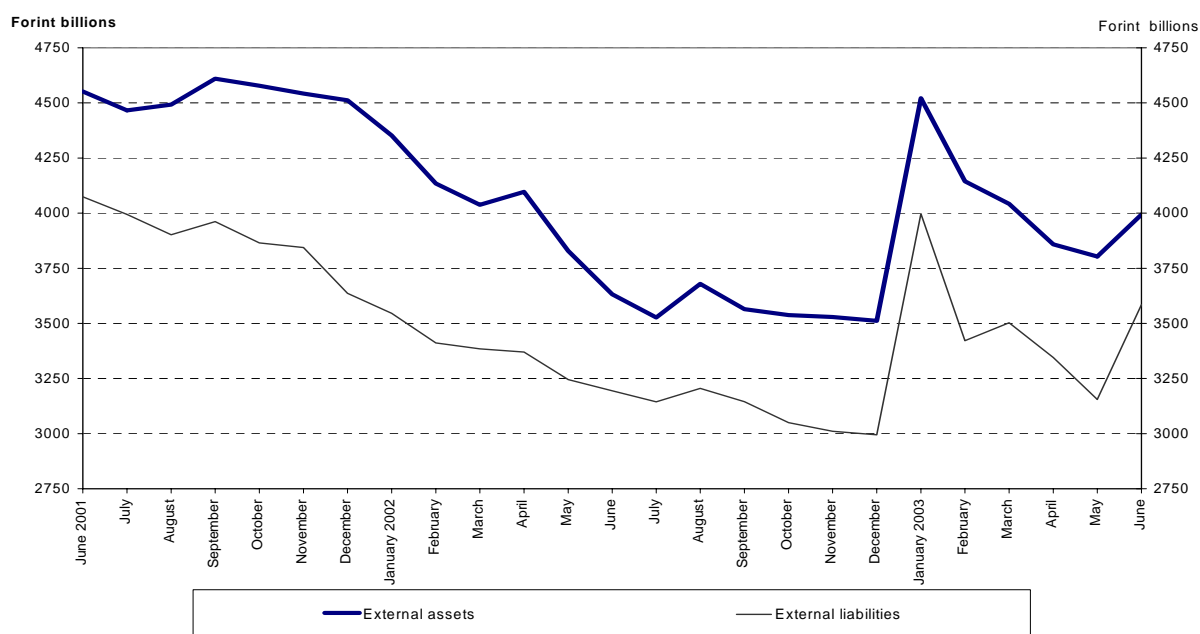


Assets and liabilities of monetary financial institutions vis-à-vis non-residents increased by Ft 189.4 billion and Ft 430.6 billion respectively in June. Consequently, the sector's net position vis-à-vis non-residents deteriorated by Ft 241.2 billion.

Net assets of the central bank vis-à-vis non-residents increased Ft 63.9 billion relative to May. Assets and liabilities vis-à-vis non-residents increased by Ft 171 billion and Ft 107.1 billion respectively.

Net assets of other monetary financial institutions vis-à-vis non-residents fell by Ft 305.1 billion in June, as a result of a decrease of Ft 18.4 billion in assets and an increase of Ft 323.5 billion in liabilities.

## Assets and liabilities vis-à-vis non-residents



*The base data used for the purposes of this press release can be found on the MNB's website (<http://www.mnb.hu>) at Statistics...Statistical time series...VII. Balance sheets of monetary financial institutions and the monetary aggregates.*



### Changes to the MNB's balance sheet statistics

From 2003, the MNB meets the recommendations of the European central Bank (ECB) for member states of the euro area in collecting monetary statistics. Consequently, time has come for the MNB to implement a major overhaul of its balance sheet publications, after a temporary period of a few months. In developing the new balance sheet statistics, the Bank, taking into account the publication practice of the ECB and EU member states, follows the principles as follows:

- The new balance sheet publications shall make it possible to compare monetary statistics internationally, with special regard to the EU countries.
- All data collected in the framework of data reporting for statistical purposes shall be published.
- Resulting from the fact that the Bank publishes all data requested, it has become necessary to alter the structure of balance sheets and present data on several levels, in order to ensure transparency. The three monetary balance sheets have become more concise, while the detailed data are presented in separate tables.
- Publication of long time series presenting household sector borrowing and deposit data, related to the monthly press releases of household savings which the Bank ceased in January 2003. Consequently, these time series are also published as part of the new monetary statistics.
- The uniform structure of the three monetary balance sheets shall make it possible to produce the consolidated balance sheet from the other two balance sheets. The aggregate balance sheet of other monetary financial institutions becoming more concise has made it become possible to take back the data in the three balance sheets to January 1998.
- The consolidated balance sheet of monetary financial institutions shows all items on a gross basis. The monetary aggregates and their components are presented in separate tables.
- The set of tables ensures that the Bank will not have to make modifications in its publications due to accession to the European Union. In the foreseeable future, only the tables containing data vis-à-vis the rest of the world will have to be modified after accession to Economic and Monetary Union (EMU), caused by aggregation related to the euro area.

The Bank will continue to publish preliminary data only for the MNB's statistical balance sheet and the monetary base.

The new monetary balance sheets are more concise and show a more uniform structure compared with earlier balance sheets; however, certain items on the consolidated balance sheet of monetary financial institutions are presented in a separate tables, which, in turn, contain much more detail than the data published earlier.

The monetary statistics in the monthly reports of the ECB and the EU member states have served as samples for the MNB's tables. Nevertheless, a couple of differences have remained:

- the consolidated balance sheet of monetary financial institutions can be produced directly from the central bank balance sheet and that of the other monetary financial institutions;
- the breakdown according to forint and foreign currency has been kept and applied to the detailed tables as well, given the large size of Hungarian foreign exchange holdings;
- the breakdown of non-resident holdings continues to be published, keeping the earlier structure;
- assets and liabilities of monetary financial institutions vis-à-vis EMU are published detailed by the major sectors;
- securities held and issued by monetary financial institutions are published in a separate table.

In contrast with the 296 data published earlier, the Bank publishes much more, some 668 data. In a small number of instances, data published earlier are not included in the new tables.

The tables<sup>b</sup> containing the new data are the following:

- seasonally adjusted data are also published for the monetary base,
- credit institution's consolidated balance sheet is also published, in addition to the consolidated balance sheet of other monetary financial institutions;
- the monetary aggregates and their components are published in a separate table. Both seasonally adjusted and month-on-month growth indices are published for the monetary aggregates;
- assets and liabilities side aggregates outside M3 are also published, in addition to the monetary aggregates;
- outstanding borrowings and deposits of non-financial corporations, other financial intermediaries, financial auxiliaries, insurers and pension funds, general government, households and non-profit institutions serving households are presented by sector, in a breakdown by type, maturity and forint/foreign currency;
- assets and liabilities of monetary financial institutions vis-à-vis EMU and other (non-EMU) residents are published in a breakdown by the major sectors. Assets and liabilities of monetary financial institutions vis-à-vis other (non-EMU) residents are published quarterly, in a breakdown by the major sectors;
- lending by monetary financial institutions to the resident and non-resident sectors, and monetary financial institutions' holdings of debt securities issued by the resident and non-resident sectors, in a breakdown by currency, are published on a quarterly basis;
- deposits placed by resident and non-resident sectors with monetary financial institutions, and debt securities issued by monetary financial institutions, in a breakdown by currency, are published on a quarterly basis.

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<sup>b</sup> The tables are published with a monthly frequency. Differences will be marked separately.

The new monthly tables contain a total 343 and the quarterly tables 148 previously not published data.

Part of the data left out from the statistical tables do not carry significant information content, another part being published in other publications of the MNB. Such data are only left out in a sense that they are not presented separately but in an aggregated form. In other words, no data have disappeared completely from the publications. The left-out data and those reclassified into other balance sheet items are as follows:

- In the statistical balance sheet of the central bank
  - derivatives transactions vis-à-vis the central government and non-residents have been reclassified into other assets/liabilities in the new tables. the reason for this is that such data were published other assets/liabilities earlier, and the ECB follows the same approach as well;
  - profits/(losses) of the MNB were published under other liabilities earlier. In the new table, profits/(losses) are included in equity and reserves;
  - the Bank has ceased to break down lending to and foreign currency deposits of other monetary financial institutions according to short and long maturities;
  - outstanding MNB bills issued in Hungary and abroad, and held by monetary financial institutions are now stated under (resident) holdings of debt securities;
  - liabilities of the MNB other financial corporations are included in other domestic deposits;
  - non-residents' assets and liabilities in a breakdown by instrument are not included in the table but available in the balance of payments statistics.
- In the consolidated balance sheet of other monetary financial institutions
  - provisions for loans granted to the sectors are not presented in a separate row, but included in other assets;
  - portfolio investments and equity ownership are no longer distinguished within shares and other equity;
  - the Bank has ceased to break down monetary financial institutions' borrowings and deposits by maturity;
  - repos are not published either on the assets or the liabilities side on a separate row at the various sectors (except other liabilities to residents on the liabilities side), but as part of loans and deposits;
  - prepaid interest on the assets side and deferred interest on the liabilities side are not presented in a separate row, but aggregated as part of other assets and other liabilities;
  - on the liabilities side, subordinated liabilities to residents and non-residents have been left out, and presented within deposits in the new tables;
  - on the liabilities side, specific provisions within other liabilities are not shown in a separate row, but on an aggregate basis, as part of other liabilities;
  - shareholders' equity and reserves are only presented on an aggregate basis;
  - non-residents' assets and liabilities in a breakdown by instrument are shown as part of assets and liabilities of monetary financial institutions.
- Earlier, the consolidated balance sheet of monetary financial institutions contained a number of net positions. Assets and liabilities vis-à-vis the various sectors are now shown on a gross basis, harmonising with the ECB's methodology. The positions vis-à-vis the sectors below are not shown on a gross basis:

- central government,
- social security funds,
- rest of the world, and

other assets are also not shown on a net basis in the new table. However, the balance sheet items are broken down by sector, maturity and currency denomination in the new tables.

To summarise, the MNB's new publications are comparable internationally, meet the current practice of the European Union and have a much wider information content.

The new time series published on the MNB website includes the tables as follows:

Table 1./a *Statistical balance sheet of the MNB (S.121) and the monetary base (Ft billions (not seasonally adjusted; month-end stocks))*

1/1. Assets

1/2. Liabilities

Table 1./b *The monetary base and its components (Ft billions; monthly average stocks)*

1.b/1. Seasonally not adjusted stocks and annual growth indices

1.b/2. Seasonally adjusted stocks and annual growth rates

Table 2./a *Consolidated balance sheet of other monetary financial institutions (S.122) (Ft billions (not seasonally adjusted; month-end stocks))*

2/a/1. Assets

2/a/2. Liabilities

Table 2./b *Consolidated balance sheet of credit institutions (Ft billions (not seasonally adjusted; month-end stocks))*

2/b/1. Assets

2/b/2. Liabilities

Table 3. *Consolidated balance sheet of monetary financial institutions (S.121+S.122) (Ft billions (not seasonally adjusted; month-end stocks))*

3/1. Assets

3/2. Liabilities

Table 4. *The monetary aggregates assets and liabilities side aggregates outside M3 (Ft billions)*

4/1. Monetary aggregates: end-of-month stocks, not seasonally adjusted

4/2. Monetary aggregates: end-of-month stocks, seasonally adjusted

4/3. Assets and liabilities side aggregates outside M3: end-of-month stocks

Table 5. *Lending by monetary financial institutions, in a breakdown by sector, type and original maturity (Ft billions (not seasonally adjusted) and growth rates in per cent)*

5/1. Loans to non-financial corporations (S.11): end-of-month stocks

5/2. Loans to other financial corporations (S.123+S.124+S.125): end-of-month stocks

5/3. Loans to general government (S.13): end-of-month stocks

5/4. Loans to households (S.14): end-of-month stocks

5/5. Loans non-profit institutions serving households (S.15): end-of-month stocks

Table 6. *Deposits with monetary financial institutions in a breakdown by sector and type (Ft billions (not seasonally adjusted) and growth rates in per cent)*

6/1. Deposits of non-financial corporations (S.11): end-of-month stocks

6/2. Deposits of other financial corporations (S.123+S.124+S.125): end-of-month stocks

6/3. Deposits of general government (S.13): end-of-month stocks

6/4. Deposits of households (S.14): end-of-month stocks

6/5. Deposits of non-profit institutions serving households (S.15): end-of-month stocks

Table 7. *Securities issued by residents (S.1) (Ft billions (not seasonally adjusted; month-end stocks))*

7/1. Securities issued by residents other than monetary financial institutions and held by monetary financial institutions (S.121+S.122)

7/2. Debt securities issued by monetary financial institutions (S.121+S.122)

Table 8. *Assets and liabilities vis-à-vis non-residents (S.2) (Ft billions (not seasonally adjusted))*

8/1. Assets and liabilities vis-à-vis non-residents (S.2): end-of-month stocks

Table 9. *Assets and liabilities of monetary financial institutions vis-à-vis EMU (Ft billions (not seasonally adjusted) and growth rates in per cent)*

9/1. Assets: end-of-month stocks

9/2. Liabilities: end-of-month stocks

Table 10. *Assets and liabilities of monetary financial institutions vis-à-vis other (non-EMU) residents (Ft billions (not seasonally adjusted) and growth rates in per cent)*

10/1. Assets: end-of-quarter stocks

10/2. Liabilities: end-of-quarter stocks

Table 11. *Certain assets and liabilities of monetary financial institutions in a breakdown by currency (Ft billions (not seasonally adjusted; end-of-quarter stocks))*

11/1. Loans to residents (S.1)

11/2. Debt securities issued by residents (S.1)

11/3. Loans to non-residents (S.2)

11/4. Debt securities issued by non-residents (S.2)

11/5. Deposits of residents (S.1)

11/6. Deposits of non-residents (S.2)

11/7. Debt securities issued by resident monetary financial institutions (S.121+S.122)

## Methodology of seasonally adjusting the monetary aggregates

Developments in the original times series are influenced by a number of factors which may make it difficult to analyse data. Such factors are, for example, more or less regular within-year fluctuations, which may result from economic activities depending on the given period of the year and variations in the number of working days. These fluctuations may be called seasonal patterns. In the case of longer time series, lasting changes which may take more a year are called trends, those exhibiting ups and downs may be called cycles. One-off, accidental effects also influence the behaviour of times series, in addition to lasting effects, which, divert the time series from the expected outturn on the basis of the effects of the trend, cycle and seasonal patterns. These one-off spikes are called outliers. Several types of outliers are distinguished – there are additive outliers, transitory changes, where the time series return to the original path after a short period, and level shifts, where the path of the time series changes permanently. In order to eliminate seasonal fluctuations in a simple way, the Bank uses annual indices to calculate the growth rates. One disadvantage of this approach is that they reflect economic developments with some delay and for a full one-year period. However, eliminating seasonal fluctuations from the time series makes it possible to generate month-on-month growth rates. After eliminating the outliers from the time series, seasonal effects may also be eliminated using a calculation method developed for this purpose. Consequently, the seasonally adjusted time series, derived this way, only includes the trend, cycle and accidental components. If accidental events play an important role in the developments in the time series, it is more useful to use smooth trend data for the purposes of the analysis.

Starting from this press release, the MNB publishes the seasonally adjusted data for the monetary aggregates, being the most important statistical measures of money. The seasonally adjusted data for the components of the aggregates are published as part of the time series available on the Bank's website. These time series include the effect of external, specific factors. In other words, the outliers have not been eliminated from the time series data. In the case of the aggregates, the directly seasonally adjusted data are published. Due to the complexities of the calculation method, the sum of seasonally adjusted data does not produce the seasonally adjusted value of the monetary aggregates. The outliers found by during the procedure are also published in the times series on the Bank's website. Where it is justified on the basis of economic factors, explanation for the phenomenon is also provided. However, the Bank does not publish seasonally adjusted data for the credit aggregates, as these time series do not show significant seasonal patterns.

As, based on the Bank's experience, the seasonally adjusted data for the monetary aggregates tend to behave erratically, trend data after eliminating external factors are used to derive the month-on-month annualised growth indices published in the press release. The trend data, providing the basis for the indices, are published as part of the times series on the Bank's website.

The TRAMO/SEATS software package, available on the Demetra interface and includes model-based filtering, is used to perform the calculations. Auxiliary variables have been introduced to eliminate the effects of outliers. An unavoidable characteristic of the calculation procedure is that data for earlier periods may change, depending on the new incoming data. In order to handle the problem, the Bank has chosen the solution, whereby the parameters of the model for analysing the time series is fixed for the time series for the period up to December 2002, and the parameters derived in this manner have been used to estimate data for 2003. the Bank continuously evaluates the applicability of the model; however, it plans to re-estimate the model only on the basis of data for December 2003.

Methodological notes to the seasonally adjusted data:

- 1 The monetary aggregates and their components are seasonally adjusted using the TRAMO/SEATS software package, within the Demetra interface.
- 2 The effects of holidays are eliminated using a built-in variable designed for holidays in Hungary; the working-day effect is eliminated using two-regression variables.
- 3 Outliers are identified according to the basic setting, allowing the identification of all three types of outlier.
- 4 In order to minimise revisions, the same model setting is being used for one year.
- 5 When interpreting the results, it is important to note that the indices for the latest two months may change significantly, depending on the new incoming data.