MAGYAR NEMZETI BANK

Trends in lending

March 2015

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The objective of the publication Trends in Lending *is to present a detailed picture of the latest trends in lending and to facilitate the appropriate interpretation of these developments. To this end, it elaborates on the developments in credit aggregates, the demand for loans perceived by banks and credit conditions. Within credit conditions, a distinction is made between price and non-price conditions. Non-price conditions influence changes in the clientele considered creditworthy by banks and the conditions of access to credit. Price conditions, in turn, show the price of borrowing for creditworthy companies. In addition, with the help of the Financial Conditions Index (FCI), the analysis summarises the impact of the financial intermediary system on the economy. In particular, the key statistics examined in the analysis are the following:*

- *The credit aggregates present quantitative developments in economic agents' loans outstanding on the basis of the balance sheet statistics of the banking sector. Both the volume of new loans and net changes in the banking sector's loans outstanding (net of exchange rate effects) are presented. From Q4 2013 the analysis presents the trends in lending in the overall credit institution sector (banking system and foreign branches, cooperative credit institutions).*
- *Changes in non-price credit conditions are presented in a qualitative manner based on the Lending Survey, in which the banks that are active in the given segment and jointly cover 85–95 per cent of the credit market indicate the direction of change compared to the reference period. The Lending Survey includes price conditions in a qualitative manner as well, in the form of the spread on the cost of funds, the premium on risky loans and the fees charged.*
- *The interest rate statistics contain the price conditions, i.e. aggregate interest rates on credit institutions' new loans realised, weighted by the contract amounts. The lending rate can be decomposed into the reference rate and the spread on the reference rate.*
- *Banks active in the given segment provide qualitative responses in the Lending Survey in respect of their expectations and the changes in demand for loans they perceive. Similarly to credit conditions, banks indicate the direction of the change.*

Detailed information on the indicators describing the lending processes and the methodology of the Financial Conditions Index is provided in the annex at the end of the analysis. Within the publication, the findings of the Lending Survey are presented in a condensed form, but the responses to the questions and the set of charts based on the findings are published in full on the Lending Survey page of the MNB's website.

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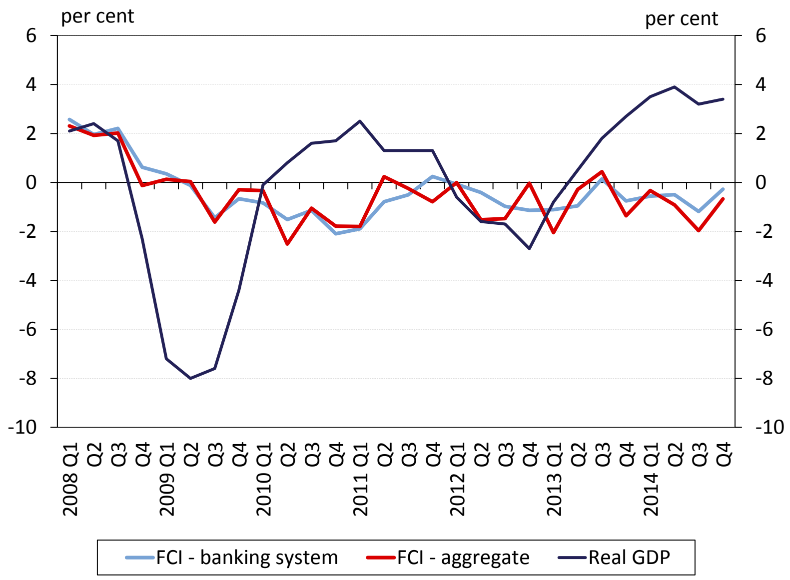
1. EXECUTIVE SUMMARY

As a result of transactions, corporate loans outstanding increased by around HUF 108 billion in 2014 Q4, and consequently, 2014 was the first year since the outset of the crisis when the balance of disbursements and repayments was positive, by around 2.4 per cent of loans outstanding. The year-on-year growth was mainly attributable to disbursements under the Funding for Growth Scheme. In the period under review, new loans were extended in the amount of HUF 637 billion, and the majority of these were forint loans. Almost half of new forint loan contracts were concluded under the Funding for Growth Scheme. As a result, utilisation of the Scheme was close to HUF 600 billion by the end of December. However, lending to the SME segment outside the MNB's programme does not show signs of a recovery despite lending rates being at a historically low level. This part of the lending market can be characterised by a decline in portfolio and, in the case of new disbursements, tight conditions and short maturities, mostly less than two years. In the quarter under review, only one-fifth of the banks participating in the Lending Survey reported an easing in credit conditions. Consequently, also considering past broad-based tightening, credit conditions continue to be excessively tight.

In the household segment, the loan portfolio continued to shrink in Q4, but the volume of newly originated household loans effectively increased in year-on-year terms. Based on banks' responses in the lending survey, terms and conditions of consumer loans eased, while those of housing loans remained unchanged in the period under examination, but looking six months ahead, the banks already forecast a tightening in conditions for both housing and consumer loans. According to the same survey answers banks do not expect any break in the recovery in the demand experienced in the past quarters in the forthcoming six months. On the whole, the average annual percentage rate of charge of actual new contracts fell in the case of the product types examined, and looking at the rate of the reduction, this meant a decrease in spreads over the reference interest rate.

Calculated based on the preliminary data, the Financial Conditions Index, which summarises lending developments in the corporate and household segments as well as monetary conditions, the banking sector's contractionary effect declined significantly during the quarter, mainly because of the corporate sub-index.

Financial Conditions Index (FCI) and annual real GDP growth

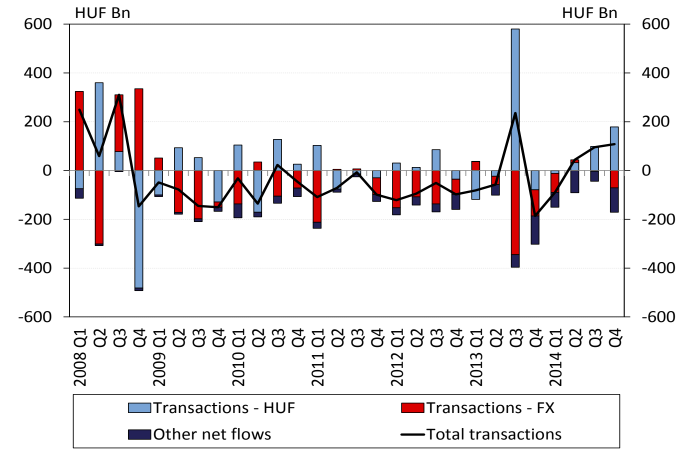


Note: Based on preliminary data. The annual growth rate of FCI shows the contribution of the financial intermediary system (banking sector) to the annual growth rate of real GDP. While the banking sector sub-index only contains the variables related to lending, the 'overall' index also contains the monetary conditions, i.e. the interbank rate and the exchange rate. A revision was made on the time series because of the transition of the model to a transactional basis.
Source: MNB.

2. DEVELOPMENTS IN LENDING IN THE CORPORATE SEGMENT

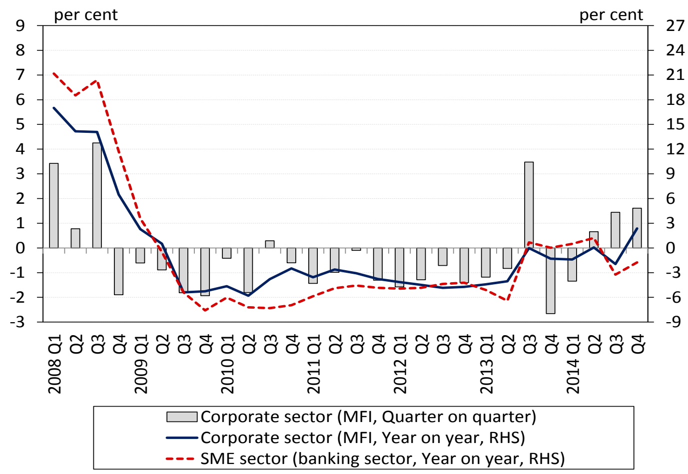
As a result of transactions, there was a substantial increase in the outstanding borrowings of non-financial enterprises from the credit institution sector in Q4 2014. The volume of disbursed loans exceeded repayments by approximately HUF 108 billion, which is mainly attributable to growth in forint loans. Utilisation of the second phase of the Funding for Growth Scheme rose to almost HUF 600 billion during the quarter. Due to a strong base effect, the transaction-based annual growth rate of corporate loans increased to 2.4 per cent, but quarterly dynamics also show an increase. Based on the banks' answers to the lending survey, the terms and conditions of corporate loans have eased, and the same easing can also be expected in the forthcoming six months. Respondent banks registered growth in demand for both long-term and short-term loans in Q4. The financing costs of companies kept declining on the whole, but the decrease in spreads was only typical in the case of euro loans in the period under review.

Chart 1: Net quarterly change in the corporate loan portfolio, by currency



Note: Seasonally unadjusted net change in outstanding amounts, with rolling exchange rate adjustment.
Source: MNB.

Chart 2: Annual growth rate of the outstanding borrowings of the corporate and SME sector



Note: In the case of the corporate sector, the time series is based on transactions, while the SME time series is based on estimated transactions from Q4 2013.
Source: MNB.

Domestic corporate lending

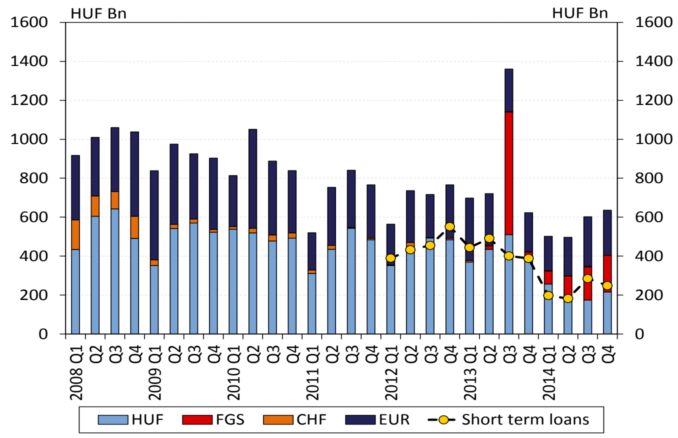
The corporate loan portfolio has been increasing for three quarters on a transaction basis. In Q4 2014, the outstanding borrowing of non-financial enterprises from the credit institution sector as a whole increased by almost HUF 108 billion, as a result of transactions (Chart 1). In the case of forint loans, disbursements exceeded repayments by HUF 179 billion, while the portfolio of foreign currency loans decreased by HUF 71 billion. Other changes in the portfolio, i.e. changes caused in the volumes by loan write-offs and reclassifications usually made at the end of the year, amounted to HUF -100 billion in total during the quarter. The total corporate loan portfolio has been increasing for three quarters, and, as a result, 2014 was the first year since the outset of the crisis when the total of the transactions was positive, as corporate lending grew in the whole year.

The annual rate of increase improved substantially as a result of base effect and growth at the end of the year. In the same period of the previous year, loan repayments significantly exceeded disbursements, mainly due to non-recurring effects and the adjustment of the balance sheet at the end of the year. Because of the related base effect, at the end of Q4 2014, the annual growth rate of outstanding borrowing by non-financial enterprises from the whole credit institution sector rose to 2.4 per cent. A similar process was observed in the annual dynamics of the banking system's loans to SMEs: the annual rate of portfolio contraction slowed down, and its value at the end of Q4 was 1.8 per cent[1] (Chart 2).[2] Within the SME segment, an increase was registered in the loan portfolio of micro-enterprises. Quarterly growth in total corporate lending showed a slight improvement, with the transaction-based rate exceeding 1.6 per cent. The quarterly trend was shaped by several one-off factors: a branch of a foreign

[1] The growth rate of SMEs may be distorted by the fact that as an indirect result of the large amounts of loans, some companies may be re-classified into the large company segment.

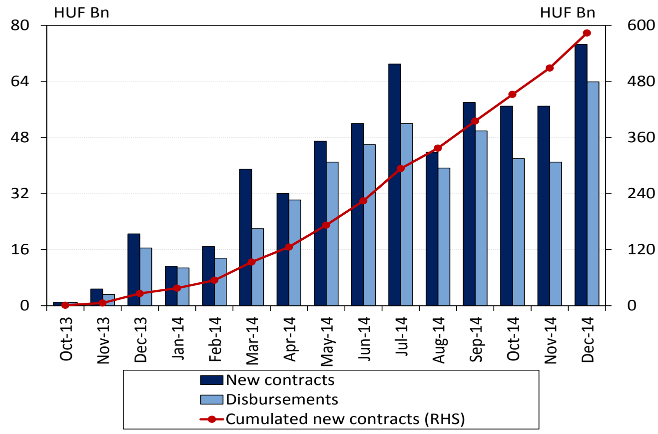
[2] We provide an estimate of SME segment transactions by breaking down other changes (write-offs and reclassifications) to total loans.

Chart 3: New corporate lending in the credit institution sector



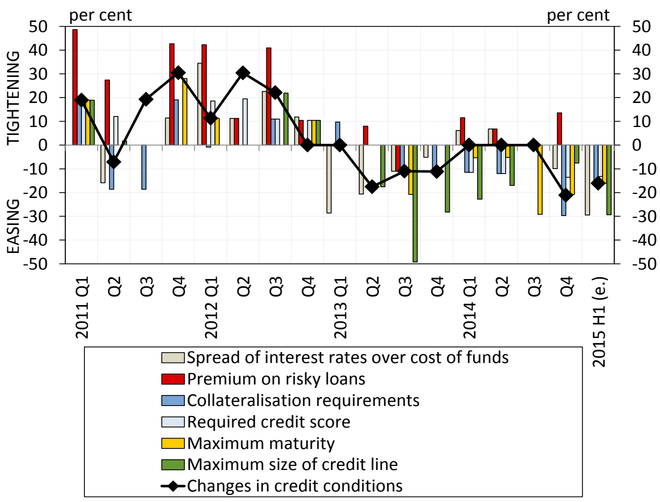
Source: MNB.

Chart 4: Contracts concluded in Phase 2 of FGS and loan disbursements by month



Source: MNB.

Chart 5: Changes in lending conditions in the corporate segment



credit institution started operating actively in the last quarter, significantly increasing its loan portfolio, but this was offset in the main by the sale of a bank loan portfolio of similar size to a foreign customer.

The volume of new long-term loans has increased significantly. The gross amount of new corporate loans issued by the credit institution sector as a whole amounted to HUF 637 billion in Q4, exceeding the previous period, and two-third of this amount consisted of long-term loans (Chart 3). This growth can primarily be attributed to the increase in forint loans. Within new lending, forint- and euro-denominated loans were disbursed in the value of HUF 404 billion and EUR 231 billion, respectively. Within new forint loans, 47 per cent was extended within the framework of the Funding for Growth Scheme.

Utilisation of the Funding for Growth Scheme has been continuously increasing. In Q4, contracts in the value of HUF 189 billion were signed within the framework of the Funding for Growth Scheme, and thus utilisation of the Scheme increased to HUF 584 billion by the end of December (Chart 4). The size of the portfolio disbursed is HUF 472 billion, which was lent to almost 14,000 micro, small and medium-sized enterprises. In the second phase of the Scheme, the average loan size decreased compared to the first phase, and this is in line with the increase in the loan portfolio of micro-enterprises.

An easing in lending conditions was observed in Q4. Based on the answers to the lending survey, in net terms,[3] 21 per cent of the banks eased their conditions. Apart from the premium on high-risk loans, both price and non-price conditions eased (Chart 5). Looking ahead, 16 per cent of the banks reported that they would ease credit conditions in the next 6 months. In respect of the conditions, the maximum amount of the disbursable loan and the spreads between the interest rates and the funding costs may be eased to the greatest extent; this can be expected in almost one-third of the banks in net terms, but the banks involved in the survey are still not planning on reducing the premium on high-risk loans.

The interest rate of new corporate loans decreased further in Q4. In quarter-on-quarter terms, the interest rate on market-based[4,5] forint loans continued to decrease.

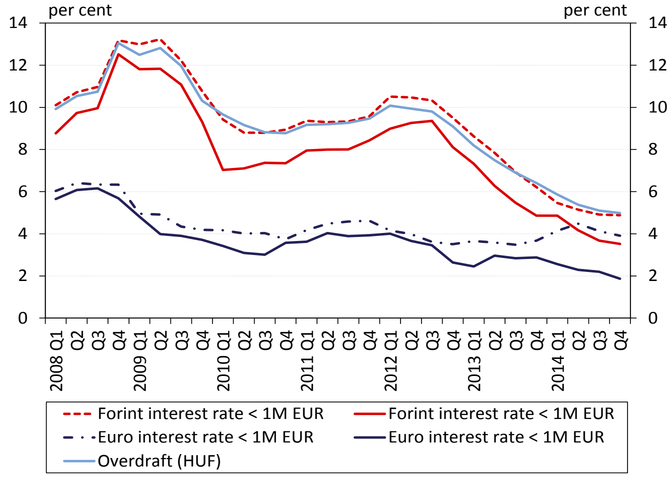
[3] The difference between banks performing tightening and easing, weighted by market share.

[4] In the case of new lending, we examined the floating-rate loans or loans with interest rate fixation for no more than one year. The majority of loans granted within the Funding for Growth Scheme are long-term loans, and therefore the interest rates reviewed by this publication are only shaped by smaller, short-term FGS loans.

[5] In addition to market-based loans, the preferential interest rate – i.e. maximum 2.5 per cent – on loans disbursed to creditworthy SMEs within the framework of Phase 2 of the Funding for Growth Scheme provided a form of low-cost financing.

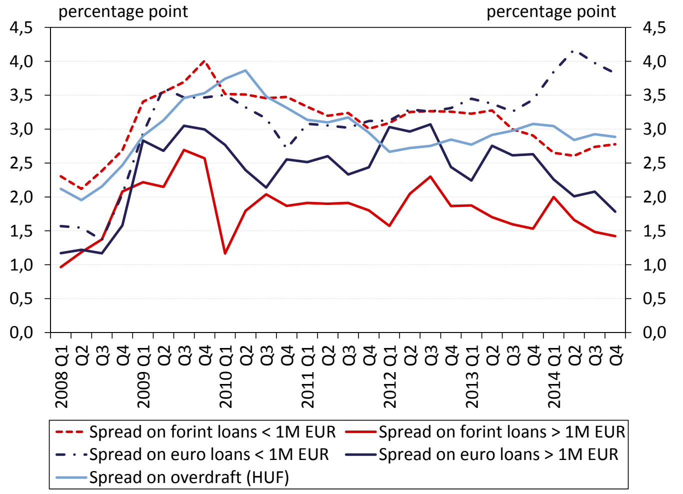
Note: Difference between the ratio of banks forecasting tightening and easing, weighted by market share.
Source: MNB, based on the answers of respondent banks.

Chart 6: *Interest rates on new corporate loans*



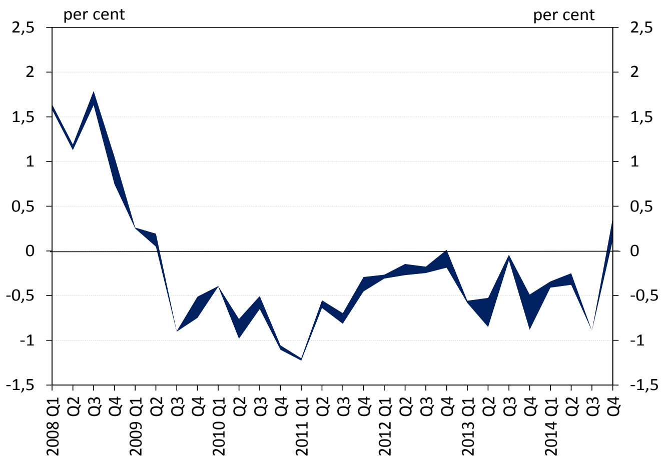
Note: Loans with variable rate interest or with up to 1-year initial rate fixation.
Source: MNB.

Chart 7: *Interest rate spreads on new corporate loans*



Note: Spread on the 3-month BUBOR and EURIBOR. Loans with variable rate interest or with up to 1-year initial rate fixation.
Source: MNB.

Chart 8: *Sub-index of the FCI for corporate lending*



Note: The index quantifies the impact of financial conditions on annual GDP growth through corporate lending. The band illustrates the methodological uncertainty. The time series was revised.
Source: MNB.

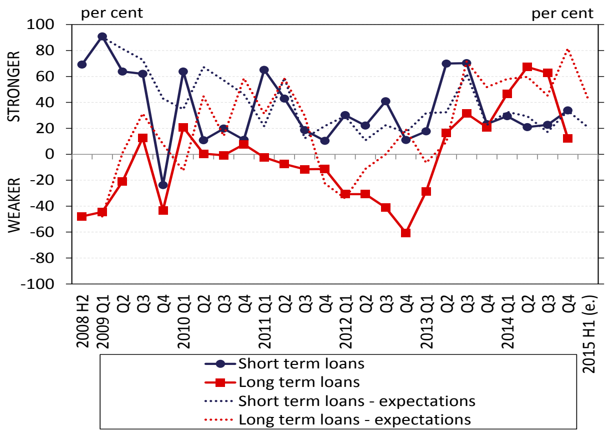
In the case of new corporate loans, there was a drop of 0.2 percentage points, from 4.2 per cent to 4 per cent (Chart 6). The interest rate on overdrafts decreased by 0.1 percentage points, and therefore the average interest rate level was around 5 per cent at the end of December. The average interest rate of euro loans dropped by 0.3 percentage points during the quarter – from 2.4 per cent to 2.1 per cent – which affected the interest rates on both large and small loan amounts.

The spread of euro loans decreased in the case of both small and large loan amounts. The average premium over the BUBOR on new corporate loans denominated in forint effectively did not change in Q4, as it hovered around 1.9 per cent (Chart 7). The average spread of forint loans of higher amounts was 1.4 percentage points, while that of loans of smaller amounts was 2.8 percentage points. The spread of overdrafts did not change effectively after the increase in Q3. In the case of euro loans, spreads decreased by 0.3 per cent on an average. This decrease took place for loans both under and above 1 million euros.

Since the onset of the crisis, this was the first time when the banking system had a positive effect on growth through corporate lending. In Q4 2014, the corporate sub-index of the Financial Conditions Index calculated on the basis of preliminary data was at around 0.1 per cent, i.e. real GDP improved by this much as a result of corporate lending in the period between Q4 2013 and Q4 2014 (Chart 8). The base effect also plays a role in the increase of this index. A sustained upturn in the credit market through a marked easing of corporate credit conditions would be needed for corporate credit supply to effectively drive economic growth.

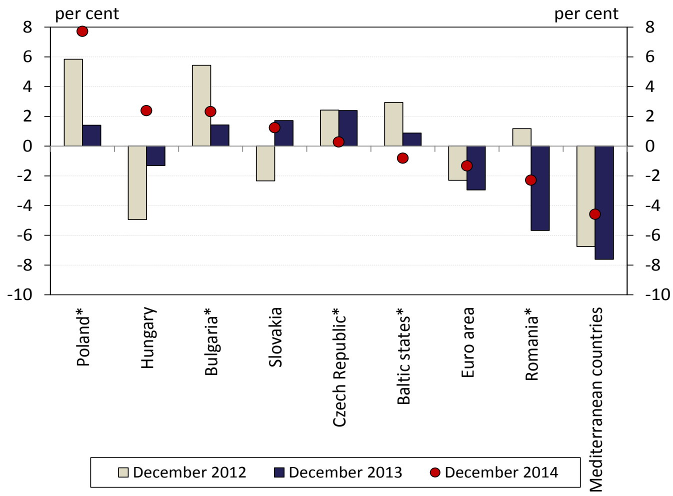
The recovery in credit demand continued, especially for short-term loans. Based on the answers to the lending survey, 12 per cent of the banks – in net terms – reported increased demand for long-term loans, and 34 per cent of them indicated a pick-up in demand for short-term loans (Chart 9). Banks perceiving an increase in demand believe that investments in tangible assets play the determining role. According to the expectations, the expansion in credit demands may continue in the next two quarters as well, the largest part of which may still be attributable to increasing investment in tangible assets.

Chart 9: Change in loan demand by maturity



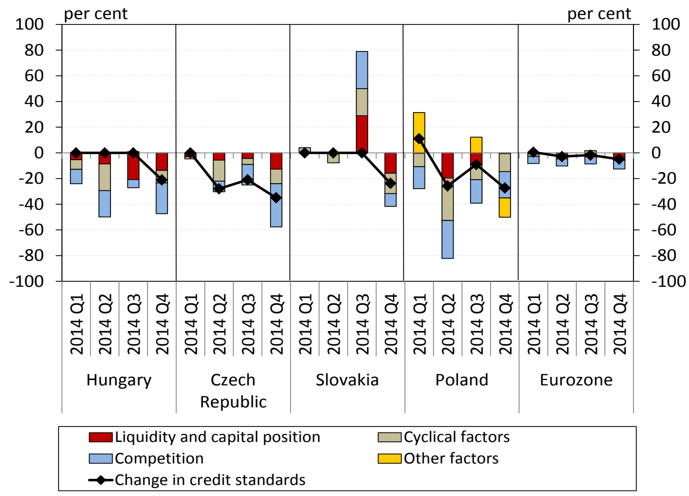
Source: MNB, based on the answers of respondent banks.

Chart 10: Annual transaction-based growth rate of corporate loans in international comparison



*Note: Mediterranean countries: Greece, Italy, Portugal and Spain. Baltic states: Estonia, Lithuania and Latvia. *November 2014*
Source: ECB, MNB.

Chart 11: Changes and factors contributing to changes in corporate credit conditions in international comparison



Note: Category values are derived from the arithmetic mean of the factors thematically classified therein. Positive values indicate the tightening of the conditions, while negative ones indicate the easing thereof.
Source: MNB, ECB, national central banks.

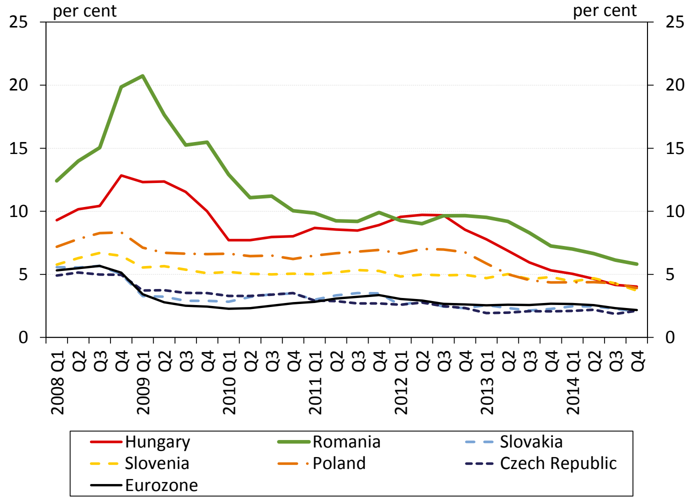
International outlook in corporate lending

Corporate lending continued to decline in the euro area and to pick up in the CEE countries. In December 2014, compared to the same period of 2013, the loan portfolio decreased by 1.3 per cent on average on a transaction basis in the monetary union. However, the euro area is highly heterogeneous: the annual growth rate is positive in eight countries, and negative in eleven countries, including all Mediterranean countries. Ireland and Slovenia saw the most intensive decline in the portfolio, but this primarily reflects the operation of state asset management companies founded in these countries. In the CEE region, the continued revival in lending seems to be the trend, and now Hungary also fits into this regional trend (Chart 10).

Loan conditions generally eased in Europe. The results of the lending surveys for Q4 revealed that lending conditions for the corporate sector generally eased in the region. In each of the Visegrád countries, 20-35 per cent of the banks eased their standards in net terms. In the euro area, the slight easing in corporate lending conditions in net terms has been continuous since the beginning of 2014, which means a more favourable process compared to the historic average. The driving force behind the easing of conditions is the improved liquidity position of banks in the euro area, while in Hungary, the easing can be attributed more to competition and considerations of market acquisition (Chart 11).

Financing costs dropped in the region. The interest rates on corporate loans showed a slight reduction in the euro area in Q4. In respect of the countries of the CEE region, with the exception of the Czech Republic, interest rates decreased by 0.2 - 0.6 per cent, but this was only partially reflected in spreads: the difference between the interbank rate and the rate on corporate loans dropped by 0.5 percentage points in Slovenia, and increased by 0.3 percentage point in the Czech Republic (Chart 12).

Chart 12: International comparison of interest rate conditions on corporate loans extended in domestic currency

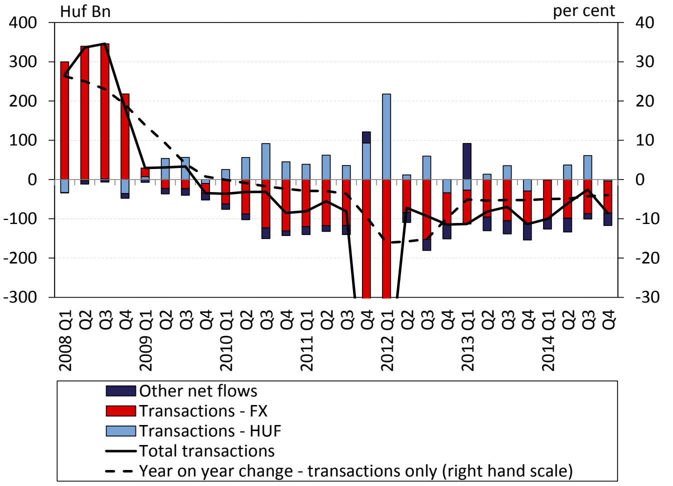


Source: MNB, ECB, national central banks.

3. DEVELOPMENTS IN LENDING IN THE HOUSEHOLD SEGMENT

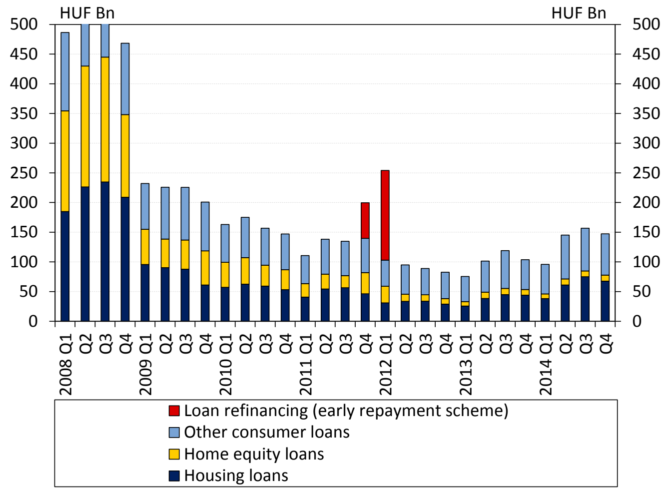
In Q4 2014, the household loan portfolio of credit institutions decreased by HUF 85 billion as a result of disbursements and repayments. The decrease in the loan portfolio can primarily still be attributed to the continuing phasing out of foreign currency loans, while in the case of HUF loans, repayments exceeded disbursements by only a small amount of HUF 4 billion. The volume of new contracts expanded considerably, rising by almost 42 per cent year-on-year, and amounted to nearly HUF 147 billion during the quarter. Based on the responses by the banks in the lending survey, the terms and conditions of housing loans remained unchanged, while those of consumer loans eased in Q4, but looking six months ahead, a significant proportion of banks already forecast a tightening of both housing and consumer loan conditions. Most of the respondent banks indicated the reduction of the maximum payment-to-income ratio, which may reflect the impact of the debt cap regulation in effect since January. Based on the survey, banks reported a pick-up in demand in both segments and also expect further growth in the coming six months. The total loan cost of new household loans continued to decrease as a whole, accompanied by the decline of the interest rate spread on new mortgage loans.

13. Chart: Net quarterly change in outstanding household borrowings, by currency



Note: Seasonally unadjusted net change in outstanding amounts, with rolling exchange rate adjustment.
Source: MNB.

Chart 14: New household loans in the entire credit institution sector



Source: MNB.

Domestic household lending

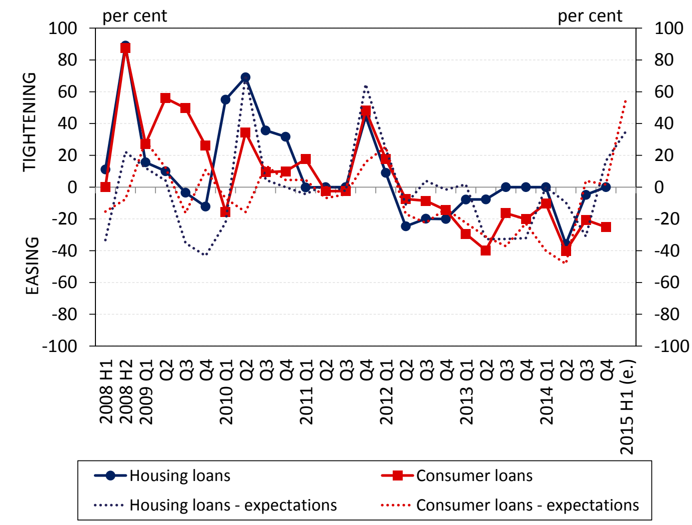
The household loan portfolio continued to decline. In Q4 2014, the household loan portfolio of credit institutions decreased by HUF 85 billion as the result of transactions (Chart 13). Write-offs and reclassifications generated a further decrease of HUF 32 billion. The transaction-based annual decrease in the portfolio fell to 4.0 per cent, from the 4.3 per cent rate recorded in the previous quarter. In the case of forint loans, repayments exceeded disbursements by HUF 4 billion, and in the case of foreign currency loans, by almost HUF 82 billion. The decline in the loan portfolio affected both housing and other loans, with the former shrinking by HUF 27 billion and the latter by HUF 90 billion in net terms.[6]

The volume of new loans continued to rise. The gross volume of new household loans of the entire credit institution sector amounted to HUF 147 billion in Q4 (Chart 14). Credit institutions concluded new contracts with the household sector for a value that is higher by almost 42 per cent year-on-year. The recovery was most noticeable in the case of housing loans. The increase was also significant in the case of other unsecured consumer loans, compared to the values from Q4 2013. As a result of the reduced annual percentage rate of new market-based housing loans, the attraction of state-subsidised schemes with fixed interest rates has continued to fade, and accordingly their ratio in new contracts dropped to 21 per cent.

Conditions for consumer loans eased, while those of housing loans remained unchanged. In net terms, 25 per cent of the respondent banks reported that they had eased the conditions of consumer loans in Q4 (Chart 15). This easing affected unsecured consumer loans, while conditions of home equity loans and car purchase finance were not changed by the

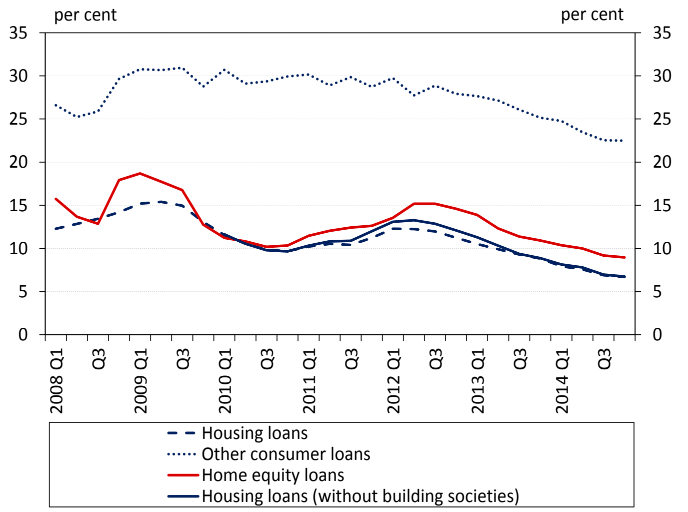
[6] The net portfolio change is the balance of the transactions and other flows (write-offs, reclassifications).

Chart 15: Changes in lending conditions



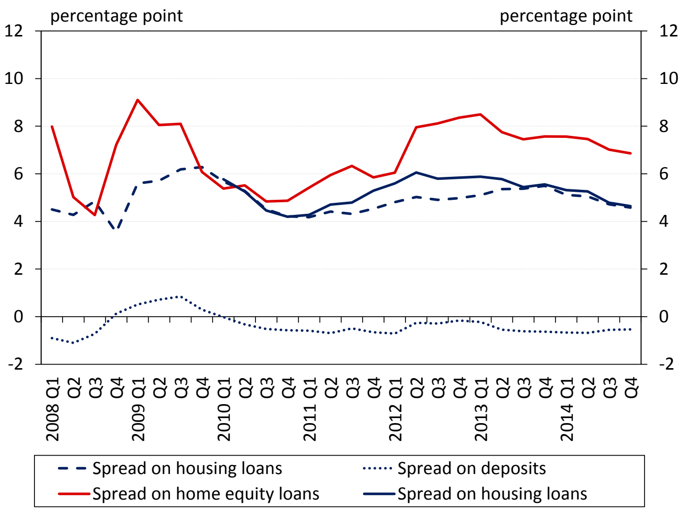
Note: The net ratio is the difference of the tightening and easing banks, weighted by the market share.
Source: MNB, based on the answers of respondent banks.

Chart 16: Annual percentage rate on new household loans



Note: Quarterly average of lending rates on newly disbursed loans.
Source: MNB.

Chart 17: Interest rate spreads on new household loans



Note: Quarterly average of the interest rate spreads on 3-month BUBOR. Spreads based on the APR.
Source: MNB.

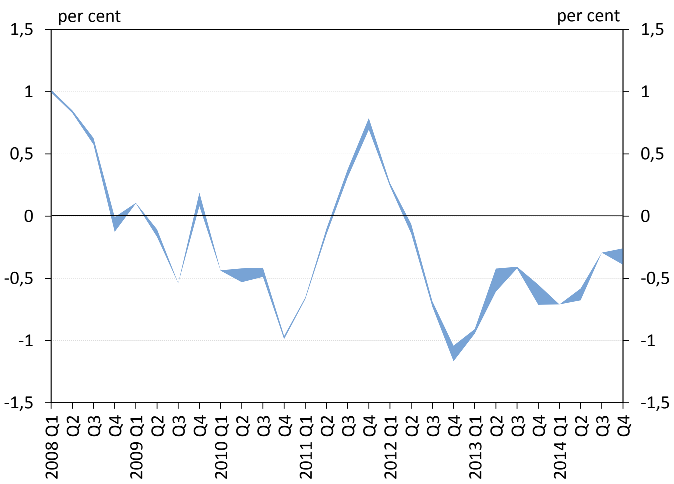
banks. The costs of fees charged for loan disbursement decreased, as did the spread between the lending rate and the funding costs, but non-price conditions were eased as well. In the first half of 2015, in net terms, 35 per cent of banks plan to tighten the conditions of housing loans, and almost 56 per cent plan to tighten the conditions of consumer loans. Instalments with a maximum payment-to-income ratio will be affected most by the tightening, which indicates the implementation of the new legal regulations ("debt cap") in the policies of the banks. However, this tightening is expected to affect only a very small ratio of customers – compared to the situation before the introduction of the rules – as the vast majority of contracts already satisfied the new regulations before the introduction of such.

The reduction in housing loan interest rates continued. Both the interest rate spread and the total annual percentage rate (APR) on housing loans decreased – by 0.1 percentage points – in the last quarter of 2014. Consequently, the typical total annual percentage rate for new contracts signed in this quarter was 6.7 per cent (Chart 16), while the average interest rate spread hovered around 4.6 per cent (Chart 17). Compared to the previous quarter, the difference between the average annual percentage rate of loans of variable interest rate (6.3 per cent) and that of schemes with fixed interest rates (7.0 per cent) was reduced, owing to the greater decline in the spread of loans of fixed interest rate. On the whole, the decrease in the spreads of new housing loans since the last quarter of 2013 has continued (Chart 17).

The total annual percentage rate on consumer loans continued to decline. Among loans secured by mortgage, the total annual percentage rate on consumer loans dropped by 0.2 percentage points to 9 per cent, while the percentage rate on other consumer loans did not change significantly. This is a result of the increasing interest rate level on personal loans and the falling interest rates on car purchase finance and consumer loans. The decrease in the APR exceeded the decline in the quarterly average of the reference interest rate (3-month interbank rate) in most loan segments, resulting in a slight narrowing of spreads (Chart 17).

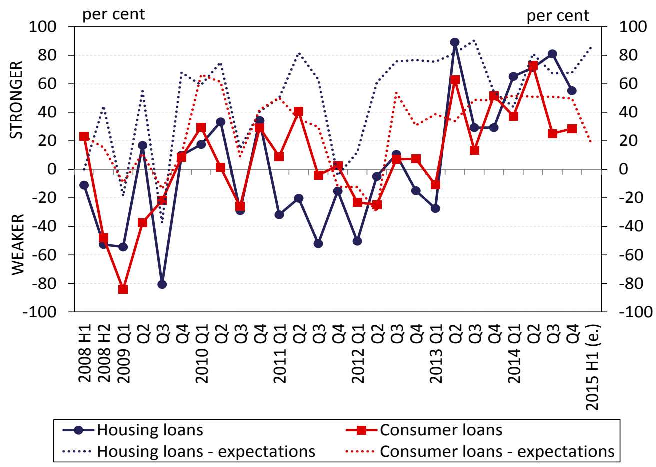
Lending processes in the household segment have a contractionary effect on the growth of GDP. The household sub-index of the financial conditions index did not change in quarter-on-quarter terms: according to the index, through its credit supply the banking sector slowed annual GDP growth by 0.4 per cent between Q4 2013 and Q4 2014 (Chart 18). The negative indicator is partly explained by the fact that the shrinking portfolio of household loans had a negative impact on the value of the index.

Chart 18: Sub-index of the FCI for household lending



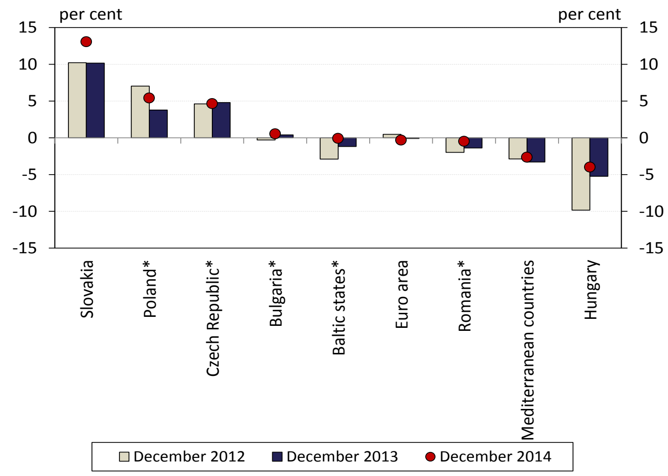
Note: The index quantifies the impact of financial conditions on annual GDP growth through household lending. The band presents the methodological uncertainty. Based on preliminary data.
Source: MNB.

Chart 19: Credit demand in the household lending segment



Source: MNB, based on the answers of respondent banks.

Chart 20: Annual transaction-based growth rate of household loans in international comparison



Note: Mediterranean countries include Greece, Italy, Portugal and Spain, Baltic states include Estonia, Latvia and Lithuania. *November 2014.
Source: ECB, MNB.

Demand for housing loans has increased further. In net terms, 55 per cent of banks reported higher demand for housing loans in Q4, while 28 per cent indicated a pick-up in demand for consumer credits (Chart 19). In spite of the introduction of the debt cap, most of the respondent banks do not expect a drop in demand for loans in the first half of 2015 either. In the case of housing loans, the vast majority of banks – 86 per cent in net terms – and in the case of consumer loans, 18 per cent of the banks, expect further growth in demand. Growth in demand is also facilitated by low loan costs, increasing real wages and the recovery of the housing market.

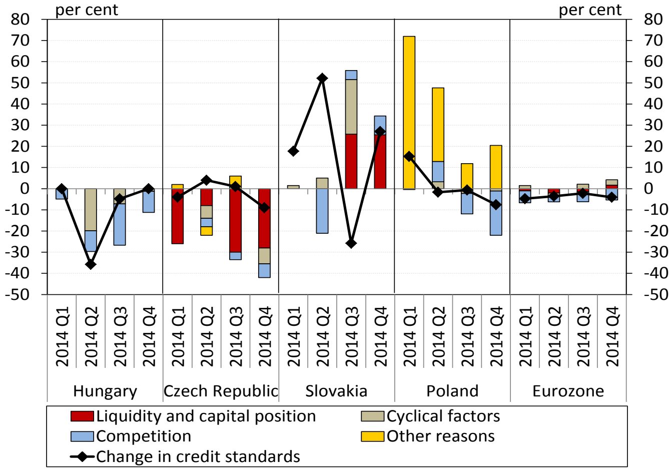
International outlook in household lending

The debts of households increased in the Visegrád countries. In the countries of the region, in Slovakia, Poland and the Czech Republic, the portfolio of household loans increased significantly, while Slovenia and Romania experienced decreases as a result of transactions (Chart 20). The moderate growth rate that is noticeable in the euro area (-0.3 per cent) is still the result of two processes of opposite directions. On the one hand, portfolio contraction in the Mediterranean countries is still intensive (3 per cent), while on the other hand, the portfolio changed in a positive direction in some of the West European countries, including Germany.

The conditions of housing loans eased in the euro area. Lending conditions for housing loans did not change in Hungary, but they eased to some extent in the Czech Republic and Poland. However, lending standards were significantly tightened in Slovakia (Chart 21), which was explained by the banks with reference to the liquidity and capital position. Banks responding to the lending survey of the ECB eased the conditions of both housing and consumer loans in the euro area in the previous quarter, on average, but in spite of the easing, the terms can still be considered tight because of the earlier wide-ranging tightening measures. Looking ahead, further easing of consumer loans was forecast for Q1 2015. Based on the answers weighted by market share, demand for loans increased in both segments, and further increase can be expected in the first quarter.

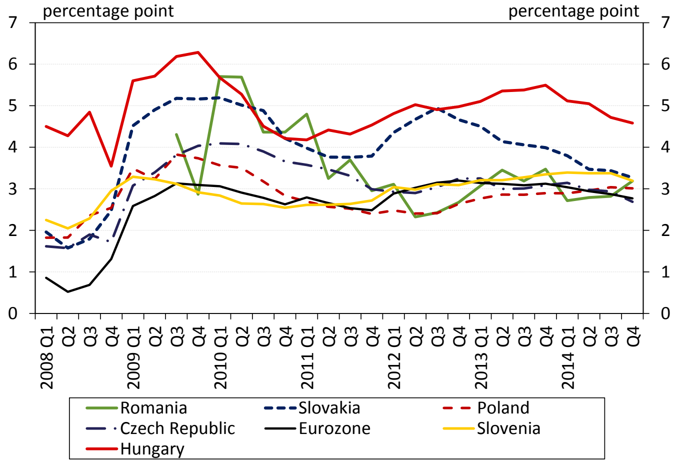
The APR on housing loans dropped, and the spread decreased as well. Apart from Romania, the total lending cost of housing loans decreased in the region in Q4. With the exception of Romania (increase of 0.4 per cent), this involved a slight decrease in the spreads in each case. In Hungary, the level of the interest rate spread is still much higher than in other countries in the region, but the difference decreased by 0.2 percentage points in the last quarter of 2014.

Chart 21: Changes and factors contributing to changes in housing loan credit conditions in international comparison



Note: Category values are derived from the arithmetic mean of the factors thematically classified therein. Positive values indicate the tightening of the conditions, while negative ones indicate the easing thereof.
Source: MNB, ECB, national central banks.

Chart 22: International comparison of spreads on housing loans extended in domestic currency



Note: APR-based spreads above the 3-month interbank interest rate.
Source: MNB, ECB, national central banks.

Box: On the past and future interest rates of household loans

The act on fair banking, as approved by the Parliament – together with the settlement and the conversion into forint – brings a fundamental change into the future pricing methods of the household loan segment. According to the new rules, the interest rate on loans may be modified only to the extent that the indicators accepted by the MNB change, and the customer is able to check it against the time series published on the website of the MNB. Indicators may be divided into two large groups: (1) the interest rate is fixed within a 3-year interest period at least, and at the end of the periods, the interest rate may change according to the given indicator, and (2) products based on reference interest rates, in the case of which the loan interest changes by the month, according to the changes in the selected reference interest rate, and at the end of the interest period of minimum 3 years, the spread may be modified.

Interest rate change indices		Additional indices including operational costs independent from banks
HUF	(H0K) Fixed interest rate	-
	(H1K) 5-year government bond reference yield (ÁKK) times 1.25	-
	(H2K) Change in Budapest interbank interest rate swap fixing (BIRS)	(H4K) BIRS + change in operational costs independent from banks
	(H3K) Change in government bond reference yield	(H5K) Government bond yield + change in operational costs independent from banks
FX	(D0K) Fixed interest rate	-
	(D1K) Change in FX interest rate swap fixing + cross-currency interest rate swap spread (IRS + CCIRS)	(D2K) IRS + CCIRS + change in operational costs independent from banks
Interest rate spread change indices		**Additional indices including operational costs independent from banks**
HUF	(H0F) Fixed spread	-
	(H1F) 5-year government bond reference yield (ÁKK) times 0.25	-
	-	(H2F) Change in operational costs independent from banks
	(H3F) Change in Government bond yield - Budapest interest rate swap fixing (ÁKK-BIRS)	(H4F) (ÁKK - BIRS) + Change in operational costs independent from banks
FX	(D0F) Fixed spread	-
	(D1F) Change in Government bond yield - Budapest interest rate swap fixing + Cross-currency interest rate swap spread (ÁKK-BIRS+CCIRS)	(D2F) (ÁKK - BIRS + CCIRS) + Change in operational costs independent from banks
	(D3F) Change in Cross-currency interest rate swap spread (CCIRS)	(D4F) CCIRS + Change in operational costs independent from banks

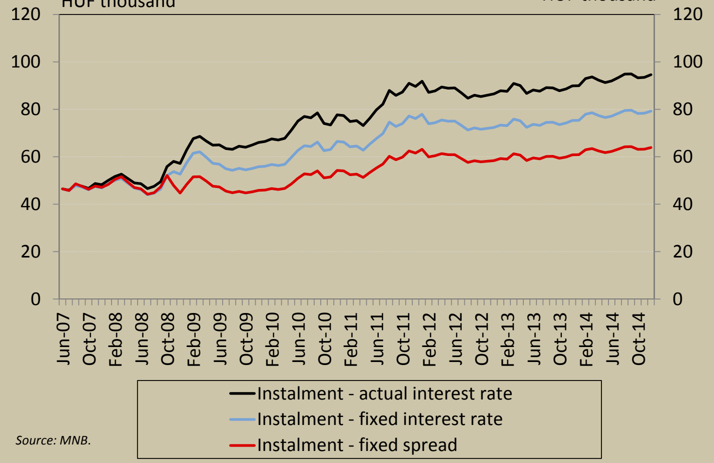
Based on the indicators accepted so far, the instalment of a loan may change because of the following key factors.

- *Change in long-term funding costs in the case of fixed interest rate:* In the case of the forint interest rate change indicators, this factor is captured by the ÁKK yield of 3-5 years, the Budapest interbank interest rate swap fixing (BIRS) of 3-5 years, and in the case of foreign currency loans, the changes in the foreign currency interbank interest rate swap fixing (IRS). The latter two indicators show the price of replacing short funds of variable interest rate for funds with interest rates fixed on the longer term.
- *Changes in foreign currency funding cost:* The cross-currency interest rate swap spread (CCIRS) shows the costs of replacing the forint funds for foreign currency funds by the creditor.
- *The liquidity premium in the case of reference interest rate:* On a given maturity, the difference between the reference yield of government bonds and the BIRS.
- *Changes in operating costs that are independent of the bank:* A fiscal obligation stipulated in valid legal regulations (including the mandatory legal act of the European Union) after January 1, 2015, which is met by the financial institutions as subjects of the payment obligation, in connection with their lending activity.

With entry into force of the new legal regulations, the previous pricing principles of the banks that were disputed from consumer protection aspects will be replaced by a transparent, controllable and symmetric practice. In justified cases, the indicators that primarily cover the changes in funding costs and regulatory burdens allow the banks to increase the interest rates, but they may also force the reduction of the rates if the contrary happens.

The significance of this symmetry is illustrated by the development of the repayment burden of households indebted in Swiss franc in recent years. If a product with reference interest rate and fixed interest rate spread had been a common scheme in the case of housing loans in Swiss franc – which was the general case in Poland – an average debtor[7] would have had to repay HUF 20-30 thousand less in each month in 2014. Even if the initial interest rate had been fixed, the assumed instalments would have been HUF 10-20 thousand less than the actual ones.

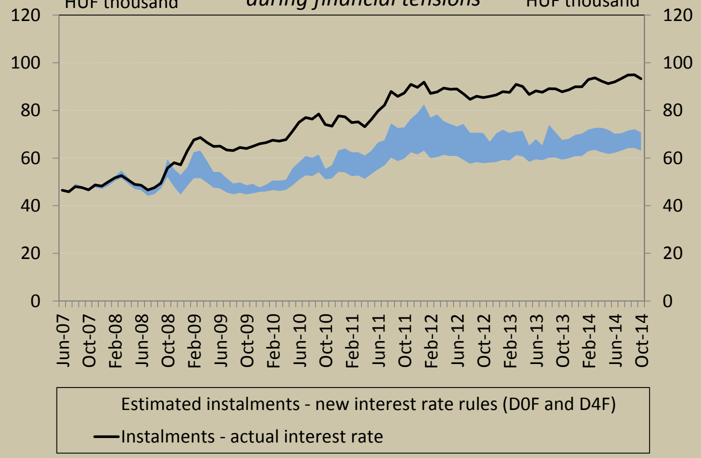
Estimated instalments assuming different interest rate scenarios



Source: MNB.

With the advent of the financial tensions in 2007-2008, and then the deepening of the crisis, the interest rate increases by the banks were partly justified from an economic point of view, but not with the permanence and to the extent that actually occurred. The symmetric pricing behaviour in respect of the changes in funding costs would have justified the reduction of interest rates in several periods. Of the already accepted interest rate spread change indicators, based on the repayment courses implied by indicators D0F and D4F, the realised repayments[8] exceeded to a meaningful extent the hypothetical courses that can be estimated on the basis of these indicators.

Estimated instalments assuming rising interest rates during financial tensions



Source: MNB.

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[7] The "typical debtor" included in the example and in the charts borrowed a loan of CHF 45,000 (HUF 6.8 million) for a term of 20 years, in June 2007, with an initial loan cost of 5.4 per cent, which in the actual case changed to an extent corresponding to the average interest rate in the portfolio.

[8] The band on the chart shows the minimum and maximum of the repayment courses estimated on the basis of D0F and D4F interest rate spread change indicators. In the case of the D4F indicator, the change of CCIRS – as opposed to the provisions of the indicator – was enforced month by month. Considering the fact that we have data on CCIRS after November 2009 only, the change of CCIRS before that date was apportioned from the changes of CDS data with a strong correlation, using the average ratio of the two time series after November 2009.

ANNEX: METHODOLOGICAL NOTES

The analysis is based on statistical data and the findings of the Lending Survey.

1. *Credit aggregate and lending rate data*

One of the statutory tasks of the Magyar Nemzeti Bank is to publish statistical data regarding the functioning of the system of credit institutions and the financial position of the country. The statistics compiled, press releases presenting the main data as well as the methodological descriptions of preparing the statistics are available on the MNB's website at:

http://english.mnb.hu/Statisztika

2. *Lending Survey*

The Lending Survey facilitates the analysis of how major banks perceive and evaluate market developments and how they develop their respective strategies, in particular their lending policies. In the case of the household segment, a total 11 banks were involved in the interviews. Nine banks responded to questions related to housing loans, while 11 banks and 7 financial enterprises answered questions on consumer loans. Based on data from the end of 2014 Q4, the surveyed institutions accounted for 90 per cent of the banking sector in the case of housing loans outstanding and 90 per cent in the case of consumer loans outstanding. The corporate questionnaire was completed by 8 and the commercial real estate questionnaire by 7 banks, with a total market share of 86 per cent and 93 per cent of the corporate loan and commercial real estate loan markets, respectively.

The survey consists of a standard questionnaire in each segment, and since the survey conducted in January 2010 the MNB has also asked ad hoc questions on current concerns related to the credit markets. The retrospective questions refer to 2014 Q4 (compared to 2014 Q3), whereas the forward-looking questions concern the next half-year period, i.e. the one covering 2015 Q1 and 2015 Q2 (relative to 2014 Q4). The current questionnaire was completed by the senior loan officers between 1 and 19 January 2015.

To indicate changes, the survey uses the so-called net change indicator, expressed as a percentage of respondents. This indicator is calculated as follows: market share-weighted ratio of respondents projecting a change (tightening/increasing/strengthening) minus market share-weighted ratio of respondents projecting a change in the opposite direction (easing/decreasing/weakening).

The detailed findings of the Lending Survey and the set of charts are available at:

http://english.mnb.hu/Kiadvanyok/hitelezesi_felmeres

3. *The Financial Conditions Index (FCI)*

In addition to short-term interest rates and the nominal exchange rate, which represent the behaviour of the financial markets, the FCI condenses the information contained in other price, quantitative and qualitative variables characterising the financial intermediary system into one indicator. The FCI gauges the impact of the financial sector on the real economy. The annual change in FCI mentioned in the survey shows the contributions of the financial system and the banking sector to the annual real GDP growth rate.

The weights of the variables that determine the FCI are derived from a VAR (vector autoregressive) model based on the Bayesian structural VAR model developed by Tamási and Világi (2011).[9] In the VAR model, the use of the so-called sign restriction method allows the identification of monetary policy shocks as well as the supply shocks of financial markets and

[9] Tamási, B. and B. Világi, 2011, Identification of Credit Supply Shocks in a Bayesian SVAR Model of the Hungarian Economy, MNB Working Papers 2011/7.

the banking sector. The identified shocks allow calculation of how unexpected changes in individual financial variables affect the growth in GDP. The advantage of the method is that it is possible to exclude the endogenous reaction of financial variables on the developments in economic activity, i.e. a real cause and effect relationship can be identified.

The FCI is based on the following variables:

- 3-month interbank rate (BUBOR),
- nominal effective exchange rate,
- corporate loans outstanding,
- household (consumer and home equity) loans outstanding,
- interest margin on corporate loans,
- interest margin on household (consumer and home equity) loans.

In addition to the total FCI, sub-indices can also be calculated. Accordingly, for example, the 'banking sector' FCI net of financial market effects is prepared with the weighting of credit aggregates and interest margins. At the same time, the VAR model serving as the basis for the FCI does not provide information on the size of the effect of the interbank rate through household and corporate loans. Only rough estimates can be given for this, based on the shares of household and corporate forint lending to the private sector lending. This uncertainty is expressed by the fact that the effect of household and corporate loans on GDP is illustrated in banded charts. One of the limits of the band only measures the effect of credit quantity and interest margin calculated on the basis of the VAR model. For the calculation of the other limit of the band, the effect of money market interest rates is also taken into account, but this calculation is already based on the aforementioned estimate, and not on the VAR model.

TRENDS IN LENDING

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