

The Belgian mortgage market: recent developments and prudential measures

Introduction

This article reviews recent developments in the Belgian mortgage market (section 1) before presenting the three prudential measures that the Bank took at the end of last year to bolster the resilience of the market and those credit institutions with the largest exposures to Belgian mortgage loans (section 2).

1. Review of recent market developments and credit standards at origination

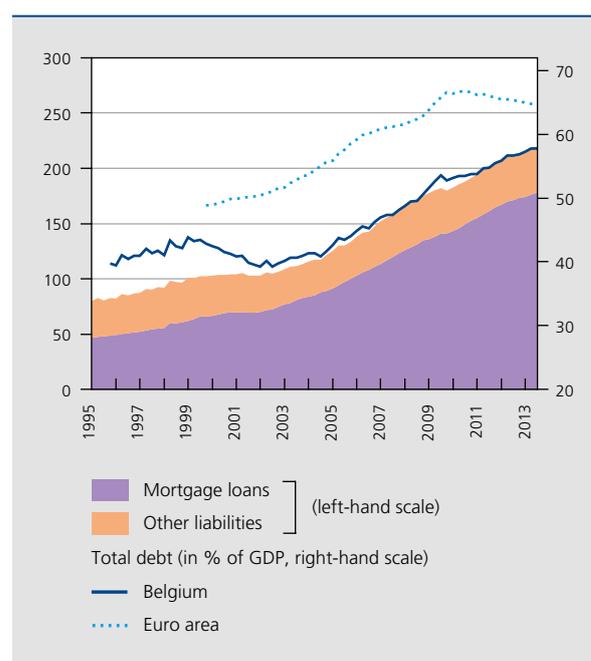
The Bank's 2012 Financial Stability Review included a thematic article that reviewed the developments in the Belgian mortgage loan market. Its main conclusion was that more vigilance was required from banks and authorities alike to ensure the continuous application of sufficiently conservative credit standards and adequate risk-pricing in all new mortgage loans. It also called for a tightening of credit standards, where necessary, in order to maintain the current high asset quality of Belgian mortgage loan portfolios.

This first section will document the development in credit standards applied to new mortgage loans since the 2012 FSR article, based in part on the same type of quantitative survey of 16 Belgian banks' domestic mortgage loan portfolios that was used for the 2012 analysis. The Bank has decided to repeat this collection of information on Belgian mortgage loans at regular intervals in future, with banks having to report data on outstanding totals and new business volumes for various portfolio characteristics every six months (for the situation as at end-June and end-December) and data on the corresponding minimum

regulatory capital requirements once per year (for the year-end position). The latest available data used in this article pertain to the situation as at the end of 2013.

Over the last fifteen years, the Belgian household sector's mortgage debt has increased strongly, rising from € 60.6 billion at the end of 1998 to € 177.8 billion at the end of September 2013 (Chart 1). Although the pace of growth has slowed down in recent quarters (to an annual rate of around 4% in the first nine months of 2013),

CHART 1 BELGIAN HOUSEHOLD DEBT
(in € billion, unless otherwise stated)



Sources : ECB, NBB.

this strong growth of mortgage liabilities has pushed the overall debt ratio of Belgian households up to 57.8 % of GDP. While it is still lower than in the euro area (64.5 % of GDP), the gap between the two has fallen from more than 15 percentage points in 2005 to less than 7 percentage points in the course of 2013. In this connection, it should also be noted that high household debt levels in some of these euro area countries were part of the major imbalances that triggered financial crises and that are currently being reduced as a result of deleveraging processes.

As explained in the 2012 FSR article, this growth of mortgage debt over the past 15 years resulted from a rise in the number of mortgage loans outstanding (also due to a change in the fiscal regime for home loans in 2005 and to fiscal incentives for energy-saving investment between 2009 and 2011), an increase in the average amount of new mortgage loans and a decline in the rate of amortisation of the outstanding stock (due *inter alia* to rising average loan maturities).

The data held in the Central Credit Register – which has information on all outstanding household loans in Belgium since the beginning of 2007 – shows that the number of mortgage loans in Belgium has risen from less than 2.2 million contracts in 2007 to almost 2.8 million since early 2013 (Chart 2). In part, this development resulted from a surge in the number of mortgages taken out for renovation between 2009 and 2011, when the use of such loans was boosted by the fiscal incentives for energy-saving investment financed with green loans.

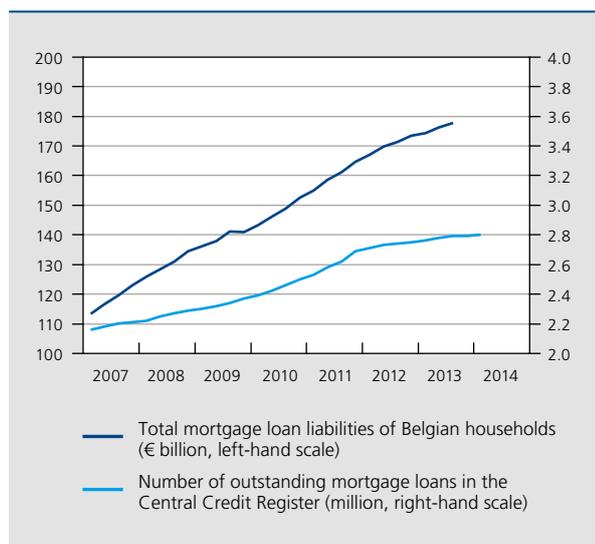
These green loans carried an interest subsidy of 1.5 percentage points, paid for by the federal government, and proved very successful, as the number of new loans for renovation purposes surged from an annual average of 36 000 in the period 2000-2008 to 100 000 in the years from 2009 to 2011. Although the average size of these loans was limited to around € 30 000, the large number of loans in these three years resulted in new production totalling € 8.7 billion. After the expiry of the tax incentives for green loans at the end of 2011, the number and total amounts of new mortgage loans for renovation declined strongly, contributing to the slower rate of growth in the number of mortgage loans recorded in the Central Credit Register.

In 2013, total new mortgage loan volumes declined further from the peak reached in 2011. In the case of mortgages for the purchase of an existing house, the new production volume in 2013 was almost 7 % lower than in 2012, dropping to an annual volume of € 15.7 billion. While this decline slightly exceeded the 4 % drop in the total number of secondary housing market transactions last year (Chart 3), the total number of new mortgage loans for the purchase of existing houses remained quite close to the total number of secondary housing market transactions in 2013 (116 000 versus 121 800). The share of housing transactions financed with mortgages thus remained close to 100 %, as it has been since the introduction of a new tax regime for mortgage loans in 2005 (to be compared with a ratio around 80 % in the period 1995-2004).

The second consecutive decline in the number of secondary housing market transactions in 2013 follows a period during which the number of existing home sales had followed an upward trend, with some fluctuations, since 1995. In 2010 and 2011, the number of transactions per annum peaked close to 127 500. This high number of housing market transactions was another aspect of the dynamic market conditions that characterised the Belgian mortgage and housing markets in the past 15 years. As in many other countries, the Belgian residential property and mortgage market saw strong growth of both housing prices and mortgage debt in the period up to the start of the global financial crisis in 2007. However, in contrast to most other countries, a marginal correction of Belgian housing prices and a temporary slowdown in mortgage loan growth in 2009 was followed by new increases in housing prices and mortgage debt, in spite of the still challenging macroeconomic circumstances during the euro area sovereign debt crisis.

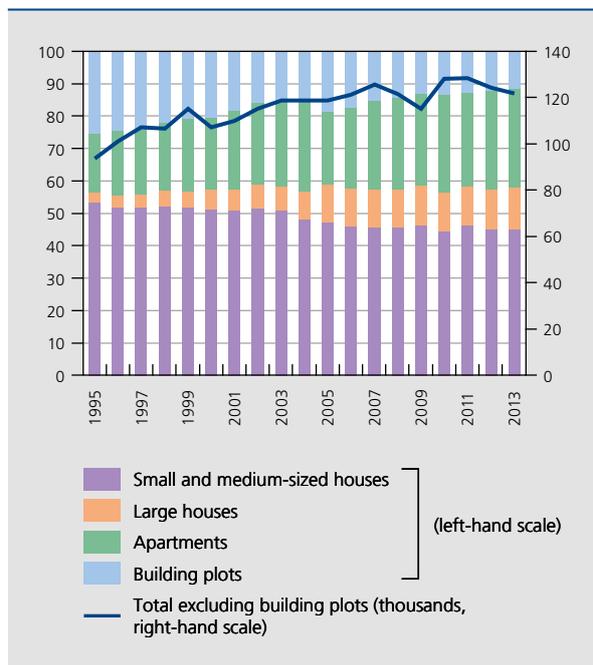
Looking more closely at the breakdown of the number of existing home sales in Chart 3, the most notable

CHART 2 OUTSTANDING NUMBER AND AMOUNT OF MORTGAGE LOANS



Source : NBB.

CHART 3 BREAKDOWN OF THE TOTAL NUMBER OF RESIDENTIAL REAL ESTATE TRANSACTIONS
(% of total, unless otherwise stated)



Source: FPS Economy.

development is the structural increase in the number of apartment sales and a decline – in both absolute and relative terms – in the number of building plot transactions. The share of houses (whether small, medium-sized or large) in total secondary market transactions has remained quite stable (55% to 60%) since 1995. The increased scarcity of building plots undoubtedly contributed to lower land sales. These tighter space constraints and the rising price of land are in turn also likely to have boosted the appetite for apartments, on both the demand and supply side. In this connection, (anticipation of) population ageing is also an important factor, as the baby-boom generation is reaching an age when downsizing to smaller housing (apartments) is in demand.

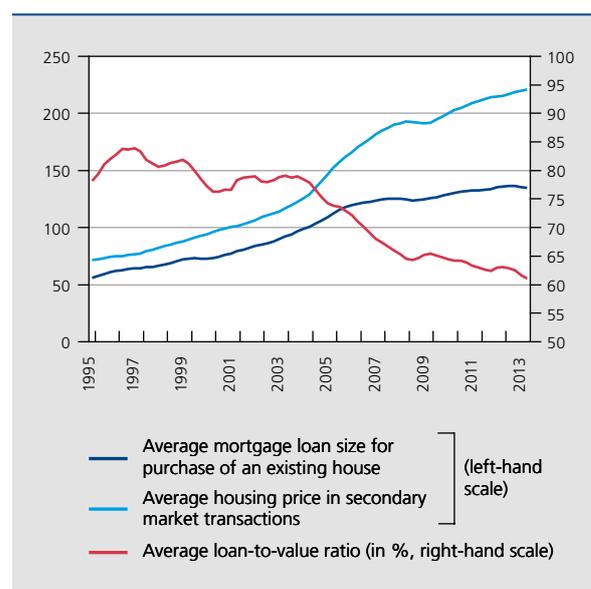
The strong demand for apartments is likely to have been driven as well in part by the growing attractiveness of real estate as an investment asset. In this connection, the 2012 FSR article highlighted the tax regularisation measures that favoured reinvestment of repatriated capital in some types of assets (including Belgian real estate), as well as the fact that the financial crisis and associated heavy losses on financial investments seem to have enhanced the relative attraction of real estate (projects) as an investment asset in households' asset portfolios. The extra flexibility and lower tax rate for gifts and donations

have probably also stimulated additional intergenerational transfers of financial resources in the context of home purchases.

This reorientation of investment funds to Belgian residential real estate assets is one explanation for the growing divergence between the average size of new mortgages that are used to finance the purchase of an existing house or apartment and the average composite housing price, calculated as the volume-weighted average of the selling prices of small and medium-sized houses, large houses and apartments (Chart 4).

Aggregate statistics can be used to calculate the average size of new mortgage loans that are used to finance the purchase of an existing house or apartment – excluding mortgages used for renovation or construction purposes – by dividing the volume of new mortgages by the number of new home loans. These calculations show an average mortgage size of € 60 000 in 1996 which had doubled to € 120 000 by the end of 2006. During this period, the average composite housing price and the average mortgage loan size followed a fairly similar pattern, resulting in a loan-to-value ratio (the ratio between the two) of around 80%. Since 2006, however, the two aggregates have increasingly diverged. Between end-2006 and end-2013, the average mortgage increased by an additional 12% to € 135 000, while the composite house price rose

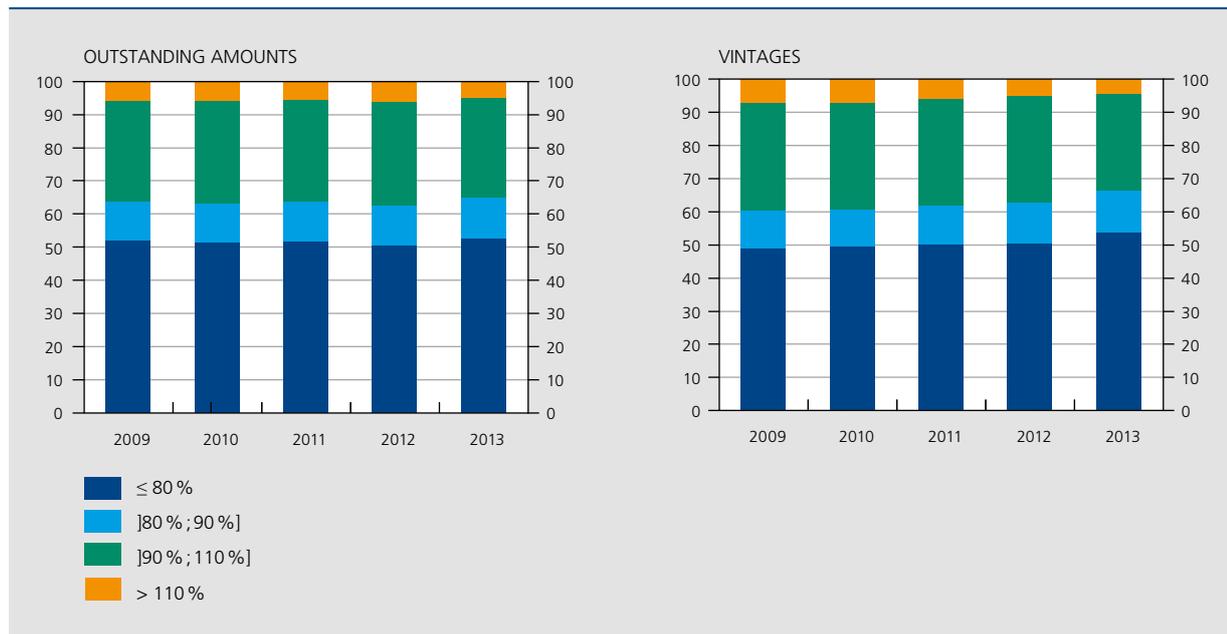
CHART 4 DEVELOPMENTS IN THE AVERAGE AMOUNT OF NEW MORTGAGE LOANS AND AGGREGATE LTV RATIO
(in € thousand, unless otherwise stated)



Source: NBB.

CHART 5 LOAN-TO-VALUE RATIOS AT ORIGINATION

(in % of total loans at the end of the year or total loans granted during a particular vintage)



Source : NBB.

by 30 % to € 220 000. As a result, the associated loan-to-value ratio dropped to 65 % (and even below that) in the years 2007-2013.

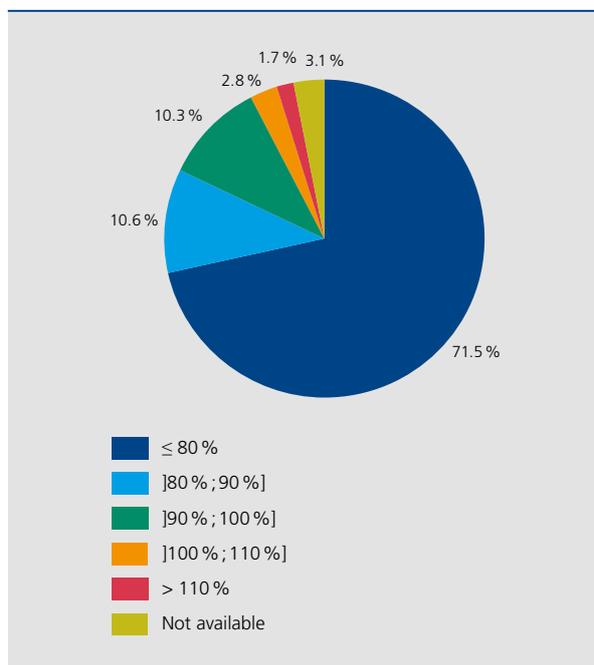
This average has to be interpreted with caution, however, as the data collected from the 16 credit institutions (Chart 5) confirm that it is the result of a very wide distribution of loan-to-value ratios at origination, with significant new production volumes being associated with ratios above 80 %, and even over 100 %. As a matter of fact, although credit institutions appear to have tightened their policies for new mortgage loans with the highest LTV ratios somewhat, around one-third of new production volumes in 2013 still had an LTV ratio of more than 90 %. On the other hand, slightly more than half of new production had an LTV ratio at origination of no more than 80 %. In this connection, the 2012 FSR article noted that the increase in the share of secondary market transactions financed with a mortgage could mainly stem from households or investors taking out a home loan for tax reasons, rather than for financial constraint reasons (increasing the relative weight of new mortgage loans with a quite low loan-to-value ratio in new production relative to the period before 2006). Due to the corresponding large share of mortgages with a low loan-to-value ratio in the overall stock of home loans, the aggregate average LTV at origination, as shown in Chart 4, remained quite moderate in recent years. The large number of green loans originated

in 2009, 2010 and (particularly) 2011 was probably also associated with a rather low LTV ratio.

For households with limited own funds, access to the property market – which has seen sharp increases in house prices over the past 15 years – was only possible by having recourse to mortgage loans with high LTV ratios, explaining the sizeable segments in new production with LTV ratios of 90 % or more. As highlighted in Chart 6, this sub-segment of high LTV loans has contributed to a large amount of outstanding loans that are associated with indexed loan-to-value ratios close to, or above, 100 %. At the end of 2013, around 15 % of the outstanding amount of loans had an indexed LTV ratio of more than 90 %.

Chart 7 provides the breakdown of the stock and vintages according to the original maturity of the mortgage loan. The data show that the share of loans with an original maturity of more than 20 years in the outstanding stock surged from 33.5 % in 2007 to around 45 % in 2011, while the share of loans with an original maturity of more than 25 years at origination increased from less than 12 % to almost 20 %. Since 2011, these shares seem to have stabilised. As highlighted in the right-hand chart, this stabilisation in the relative share of mortgage loans with maturities of over 20 years is the result of a declining share of these loans in new production since 2012. This reduced prevalence of longer maturities in new mortgage

CHART 6 BREAKDOWN OF THE OUTSTANDING MORTGAGE LOAN STOCK ACCORDING TO INDEXED LOAN-TO-VALUE RATIOS⁽¹⁾
(in % of total loans at the end of 2013)



Source: NBB.

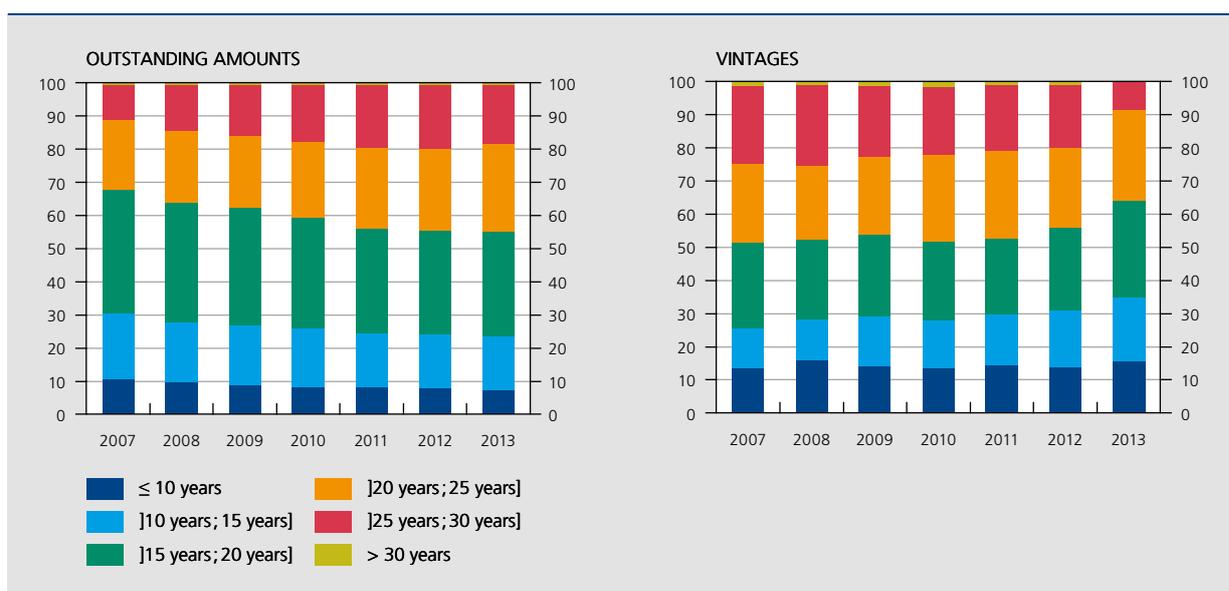
(1) Indexed LTV ratios are calculated as the ratio between the amount of the mortgage loan outstanding at reporting date (taking repayments of capital into account) and the assessed market value of the property.

loan production is the most visible sign of Belgian banks tightening the credit standards applied in their mortgage credit policies since 2012.

The available data do not suggest that the lower availability of longer mortgage loan maturities contributed to concurrent upward pressure on the debt-service-to-income ratios for borrowers at the time of the origination of their mortgages. This confirms the anecdotal evidence suggesting that banks have actually become more selective in their credit origination policies since 2012. Yet, while the data shown in Chart 8 should be interpreted with caution, due to the various definitions banks use for the denominator of this ratio (such as disposable income), the distributions of the debt-service-to-income ratios for the outstanding stock and new volumes include large sub-segments where borrowers have to reserve 50 % or more of their disposable income for paying interest and repaying capital on their mortgage loan (as assessed at the time of origination).

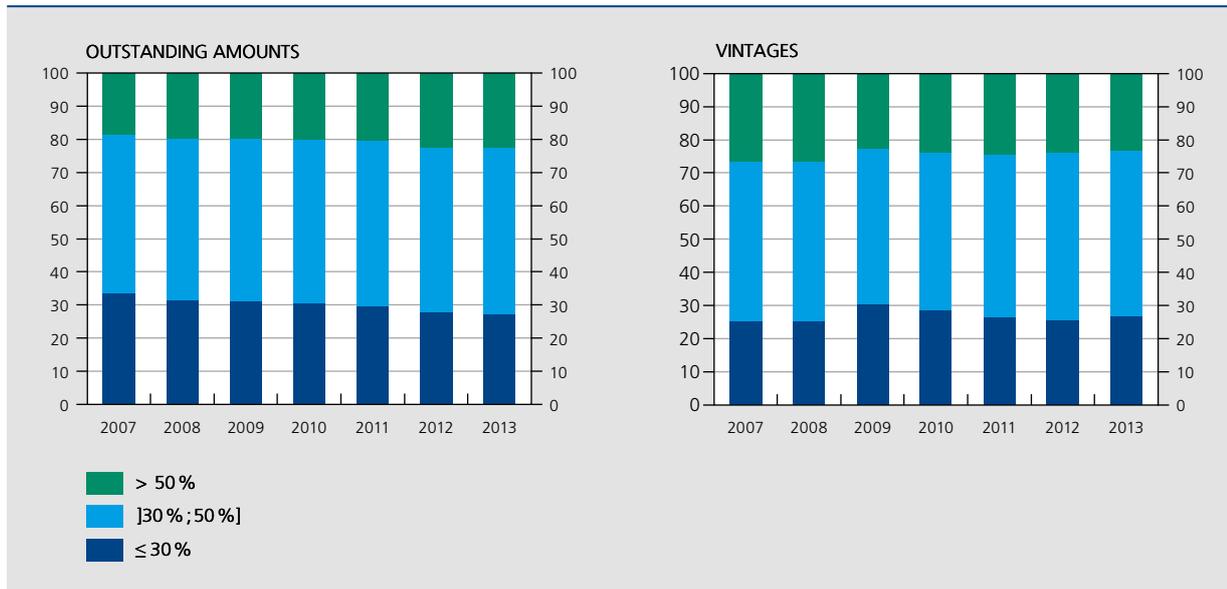
Changes in debt service levels after origination can be the result of revisions of mortgage interest rates in those contracts for which the rate has not been fixed for the whole maturity of the contract. Chart 9 shows that the mortgage loan portfolios of the 16 banks surveyed are dominated by mortgage loans for which the interest rate is fixed for the whole term of the contract. At the end of 2013, these represented 60 % of the outstanding stock.

CHART 7 MATURITIES AT ORIGINATION
(in % of total loans at the end of the year or total loans granted during a particular vintage)



Source: NBB.

CHART 8 DEBT-SERVICE-TO-INCOME RATIOS AT ORIGATION
(in % of total loans at the end of the year or total loans granted during a particular vintage)

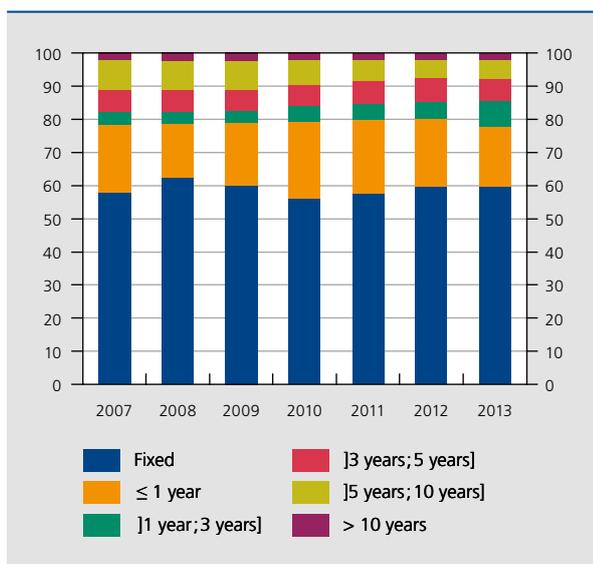


Source: NBB.

Of the mortgage loans having some form of interest rate variability, slightly less than 20% of the stock at the end of 2013 was scheduled to be repriced in the course of 2014. As regards loans for which the interest rate variability is one year or less, it must be remembered that in practice that period is actually one year, because the Belgian

mortgage loan regulations forbid mortgage loans for which the interest rate would be fixed for less than 1 year.

CHART 9 INTEREST RATE VARIABILITY: TIME TO NEXT REPRICING DATE
(in % of total loans at the end of the year)

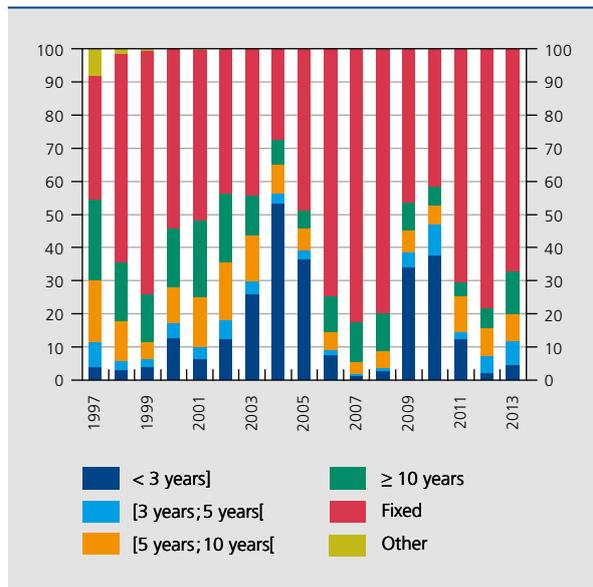


Source: NBB.

As highlighted in Chart 10, the relative weights of mortgages with fixed or variable interest rates can vary quite considerably from one year to another. While Belgian households continue to have a strong preference for fixed-rate contracts, in periods when the interest rate gap between fixed and variable rates widens substantially, variable-rate contracts take a significant share of new production. In 2009 and 2010, for example, mortgage loans with an interest rate fixed for a period of less than three years accounted for more than one-third of the new annual volume. In 2013, their share remained very low, with borrowers preferring mortgage loans with rates fixed for an initial period of at least 5 years.

Borrowers opting for such variable-rate loans run the risk of higher debt service levels in the future if interest rates rise. However, this risk is not open-ended in Belgium, as the mortgage credit law imposes strict limits on the maximum interest rate variability that lenders are allowed to pass on to mortgage borrowers. The rate charged to borrowers may never exceed a level that is twice the initial rate. Moreover, the law and the banks' commercial policies have resulted in a standard practice for variable-rate mortgage loans to have a cumulative cap of 1, 2 and 3% respectively on the upward or downward adjustment that can take place in the first, second and subsequent years of the loan.

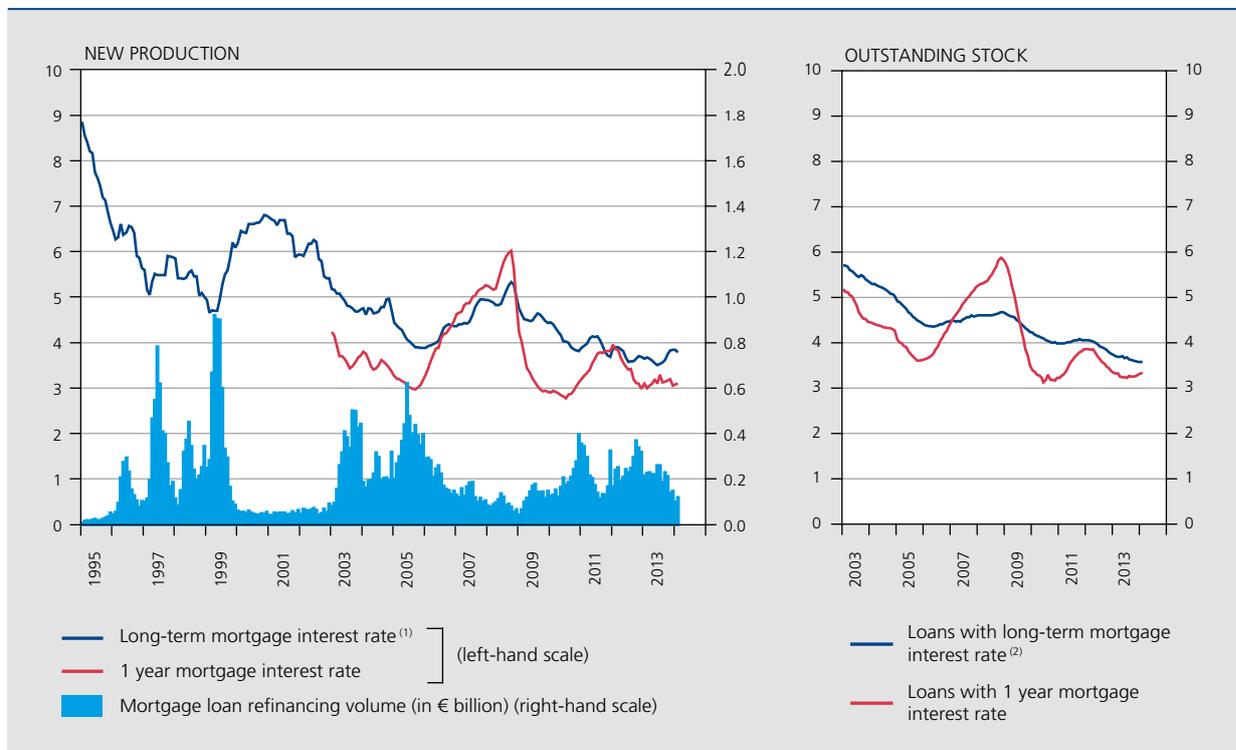
CHART 10 INITIAL FIXED INTEREST RATE PERIOD, BY VINTAGE
(in % of total loans granted during a particular year)



Source: BVK/UJC.

The reference rates for reviewing mortgage interest rates are based on monthly average yields on Belgian government bonds. However, mortgage rates for new loans are linked to banks' internal transfer prices, adjusted for a commercial margin. The left-hand panel in Chart 11 provides information on the average mortgage rates in new production over the period 1995-2013. While short-term rates stabilised at the historically low level of 3% in the course of 2013, long-term rates bottomed out in the third quarter of that year, but remained at historically low levels at the end of 2013. The average interest rates on the outstanding stock of mortgage loans – shown in the right-hand panel of Chart 11 – are also close to historically low levels. Here, it must be remembered that the Belgian mortgage loan regulations stipulate that the maximum financial penalty for early redemption by borrowers is three months' interest due on the remaining capital outstanding. This quite cheap early redemption option is regularly used for the purpose of refinancing loans at lower interest rates when rates on new mortgages fall below the yield on historical contracts. As shown in the left-hand panel of the chart, monthly mortgage refinancing volumes are therefore very sensitive to the level of interest rates on

CHART 11 MORTGAGE LOAN INTEREST RATES
(in %, unless otherwise stated)



Source: NBB.

(1) Initial rate fixed for at least 10 years.

(2) Rate fixed for more than five years.

new mortgages. As this remortgaging depresses the profitability of mortgage loan portfolios, it is an option-type source of interest rate risk for the Belgian banks. These interest rate risks and related hedging costs, together with an appropriate funding cost for an asset portfolio with sometimes very long-term assets, have to be included by the banks in the commercial margins taken on mortgage loans. Since the global financial crisis, these commercial margins have been raised from very low levels to an average of around 100 basis points relative to swap rates.

2. Credit quality and prudential measures taken in 2013

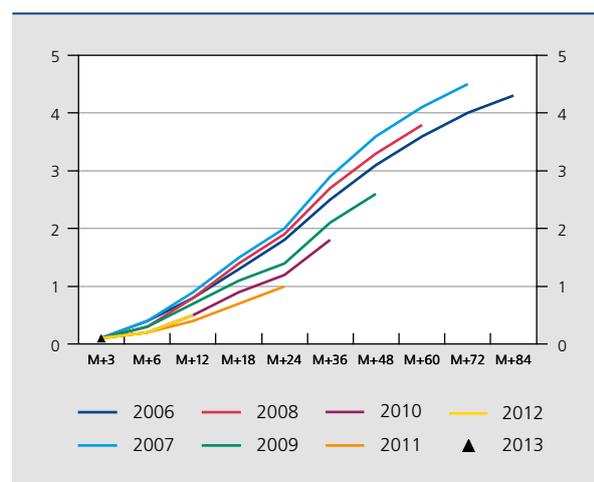
While the Bank has closely monitored developments in the Belgian residential real estate and mortgage loan markets since a number of years, in 2013, particular attention was devoted to an analysis of the way in which the potential risks associated with mortgage loans were taken into account in calculating the minimum capital requirements for credit risk under the Pillar 1 rules. As a follow-up to the above-mentioned policy message from the 2012 FSR article, the Bank thus conducted a new stock-taking exercise in the second half of 2012 and 2013 on the 16 Belgian banks' mortgage loan portfolios that assessed the overall risk profile and quality of the residential mortgage portfolios of the main credit institutions together with the related Basel II risk parameters and risk weights. The fact-finding exercise focused mainly on the banks relying on internal risk models to compute the minimum regulatory capital buffers required for these exposures, as these calculations result in risk weights (10% on average) that are significantly lower than those applied in the framework of the standardised approach (35%) of the Basel II framework. Generally speaking, the Basel Accord foresees two potential methods for calculating minimum capital requirements for mortgage loans granted to retail clients. The first approach, called the standardised approach (SA), applies a risk weight of 35% to the outstanding amount of mortgage loans – that meet certain criteria —, which is then multiplied by 8% in order to arrive at the amount of capital that the banks have to hold for this portfolio under the Pillar I capital requirements for credit risk. This SA approach is used by the smaller Belgian credit institutions, and covers only a small part of the total Belgian banking sector's mortgage loan portfolio. The second approach, the internal ratings-based (IRB) approach, relies on banks' internal risk models to calculate important risk drivers such as the probability of default (PD) and loss given default (LGD) – i.e. the estimated loss over the total exposure if the borrower defaults. These parameters then serve as important inputs for the Basel risk weight

function, which calculates the average risk weight to be applied to the IRB bank's mortgage loan exposures.

The risk weights calculated with these internal risk models for Belgian mortgage loans are not only considerably lower than those determined by the standard approach for calculating the minimum capital requirements for credit risk, but they also vary widely between institutions. More detailed analysis has confirmed that these differences between institutions are largely attributable to variations in the risk profile – and particularly the relative importance of the riskier sub-segments – of different banks' mortgage loan portfolios in Belgium. This analysis confirmed the heterogeneity among banks' credit standards and the importance of these standards in explaining the degree of subsequent defaults in the portfolios. In particular, banks that generally tend to have less conservative credit standards (loans granted to more risky borrowers, with higher debt-to-service ratios) were found to be the ones with the relatively higher default rates. The study also showed that differences in individual banks' IRB risk weights and parameters for Belgian mortgage loans seemed to be broadly consistent with the ranking of bank portfolios' (relative) risk profile.

Another main conclusion of the fact-finding exercise was that these IRB risk weights for Belgian mortgage loans are generally relatively low, and, on average, lower than in other countries. Data collected by the European Banking Authority has shown that the average IRB-risk

CHART 12 MORTGAGE LOANS WITH PAYMENT DEFAULTS⁽¹⁾, BY VINTAGE⁽²⁾



Source: NBB.

(1) As recorded in the Central Credit Register.

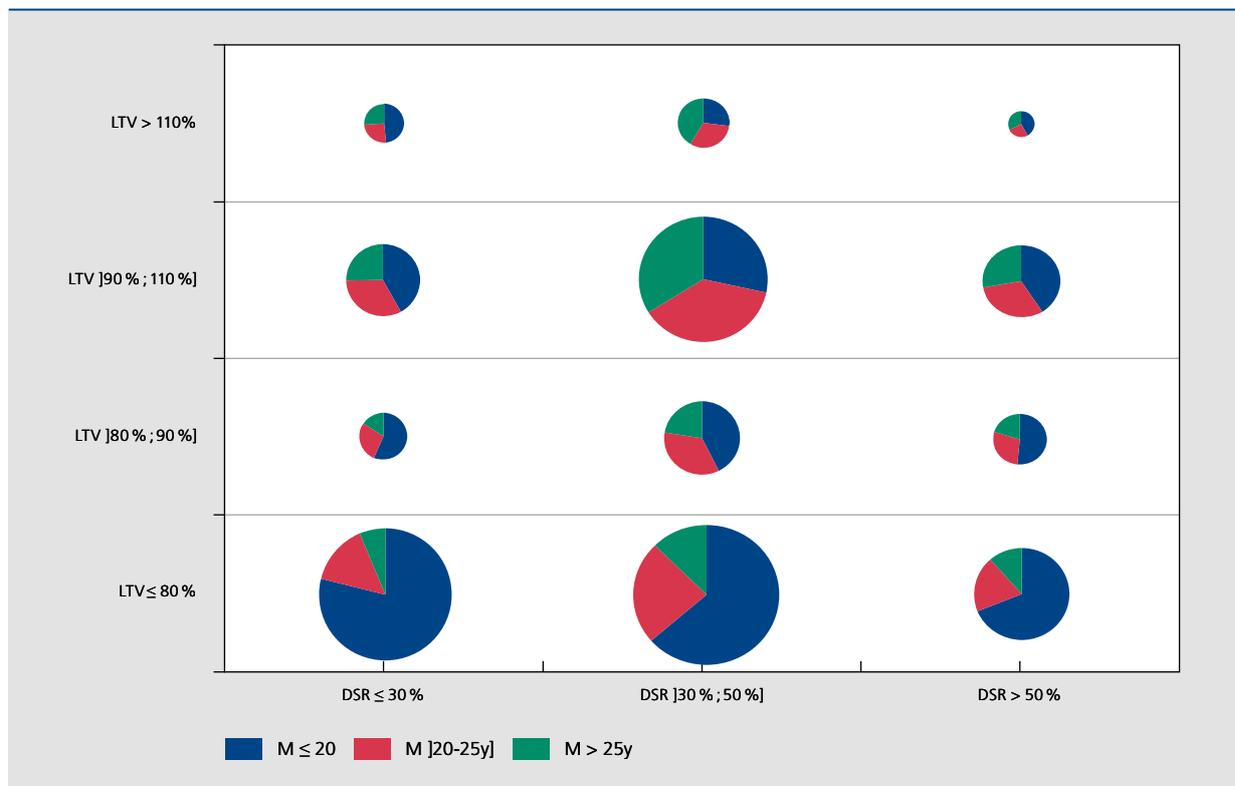
(2) Vintages group together loans granted during the same year. The curves show, for each vintage, the number of defaulted loans as a percentage of total original loans after a certain number of months since the loans were granted. Possible regularisations of loans are not taken into account.

weight for mortgage loans in Belgium was one of the lowest among all the sample countries, with Sweden having the lowest weights (see figure 13 in EBA's *Third interim report on the consistency of risk-weighted assets, SME and residential mortgages*). However, the Swedish authorities have enacted a measure in the course of 2013 aimed at putting a 15 % floor on this risk weight and recently announced plans to raise the floor further up to 25 %. Belgium's neighbours report average risk weights of over 10 % (up to 18 %). Echoing the developments in Sweden, Norway and Switzerland have also recently taken measures aimed at raising the average risk weight of IRB-banks for domestic mortgage loans (up to 35 %, as in the SA approach).

Although the aggregate credit quality indicators for households do not so far point to any deterioration in default rates on recent mortgage loan vintages (Chart 12), the Bank and international institutions such as the ECB, ESRB, the OECD and the IMF have drawn attention to potential risks associated with the Belgian housing and mortgage market, partly on the basis of

criteria measuring the over- or undervaluation of property prices. If conditions in the Belgian housing market were to become less buoyant than they have been over the past 15 years, the riskier loan segments in the outstanding stock of mortgages (Chart 13) could be the source of higher-than-expected credit losses for banks. In spite of the recent tightening of some credit standards for new mortgage loan production, a sizeable group of borrowers in recent years may indeed have stretched their mortgage loan maturities, loan sizes and/or debt service ratios to levels that could entail a higher risk of future credit losses for banks than in the past. Here, it should be noted that the internal risk models are calibrated on historical credit loss data, so that these low risk weights can to some extent be explained by the absence of a major crisis on the Belgian housing market in the past and by the generally buoyant market conditions of the past 15 years. Risk weights as calculated by the IRB models could thus be too low for losses that may emerge in less favourable market circumstances and from the materialisation of risks embedded in certain sub-segments of banks' Belgian mortgage loan portfolios.

CHART 13 BREAKDOWN OF THE PORTFOLIO OF MORTGAGE LOANS OF IRB BANKS BY LTV, DSR AND MATURITY AT ORIGINATION⁽¹⁾⁽²⁾
(non-consolidated data, end-2013)



Source: NBB.

(1) The three indicators are calculated at the time of granting the loans.

(2) The relative size of the circles reflects the relative size of the portfolios, while the level of the outstanding amount of loans in relation to the value of the property (loan-to-value, LTV) and the ratio between the debt repayments and the borrower's income at the time of granting the loan (debt service ratio, DSR) are broken down by specific intervals. In addition, each portfolio is broken down according to the initial maturity (maturity, M) of the loans expressed in years.

In this context, and in view of the relatively large share of domestic mortgage loans in the balance sheets of Belgian credit institutions, the NBB considered it justified to take some prudential measures aimed at strengthening the banks' resilience and reducing the concentration risk.

The first measure that was taken in the last quarter of 2013 was macroprudential in nature and provided for a flat-rate 5-percentage-point add-on to the risk weightings calculated by the banks themselves, but only for banks calculating their minimum regulatory capital requirements for Belgian mortgage loans according to an IRB model. That measure took effect with the Royal Decree of 8 December 2013⁽¹⁾. This add-on did not apply to banks using the standard approach mentioned earlier to calculate their capital requirements. In practice, if a bank using the IRB approach calculates an internal risk weighting of 10 % for Belgian mortgage loans, this measure requires the minimum capital requirements to be calculated on the basis of a 15 % risk weighting. The average risk weight of the IRB banks effectively increased from around 10 % at the end of 2012 to about 15 % at the end of 2013, as a result of the introduction of the add-on.

The relatively moderate size of the add-on seemed appropriate in view of the Belgian banks' generally rather conservative policy on mortgage lending in the past, and the historically low level of losses on such loans. However, in view of the cyclical character of this measure, the Bank will keep a close eye on market developments for the purpose of continuous assessment of the appropriate level of that add-on.

From 2014, the new capital requirements for Belgian mortgage loans will be maintained pursuant to European rules permitting the EU Member States to impose specific requirements to tackle macroprudential risks. To this effect, the Bank notified the relevant European authorities of its intention to use CRR Article 458 to maintain the add-on with due regard for the new EU Directives applicable from 1 January 2014.

The other two measures adopted by the Bank at the end of 2013 were microprudential in nature.

One involved launching a horizontal assessment of the IRB models on the basis of the results of the back-testing to be conducted by the institutions, followed by any

necessary adjustments to those approaches. The goal of this measure is to address potential weaknesses of the risk parameters used in the IRB approach. The Bank will in this respect evaluate the adequacy of the calibration of the PD and LGD models used in the regulatory capital calculation within the IRB approach. Their results will be analysed in accordance with regulatory requirements and best practices so as to assess the performance of these models over the longest possible time horizon. The back-testing results will be analysed horizontally in order to detect any possible outliers. Banks with unsatisfactory calibrations will be required to adapt their Pillar 1 models.

The other microprudential measure consisted in requesting credit institutions to carry out a self-assessment of the degree to which each bank conforms to the EBA Opinion on Good Practices for Responsible Mortgage Lending and the EBA Opinion on Good Practices for the Treatment of Borrowers in Mortgage Payment Difficulties. Credit standards at origination play an important role in the development of imbalances in the residential real estate markets which may then lead, in the event of a bursting of a bubble, to severe macroeconomic (and social) outcomes and losses for banks. In this context, the banks' self-assessment of the degree of conservatism of their credit standards for residential mortgage loans will be analysed by the Bank and if weaknesses are identified, banks will be asked to develop an action plan to redress these identified weaknesses. This measure applies to all 16 banks.

Through these prudential measures, the Bank aims to bolster the resilience of the market and credit institutions against potentially higher-than-expected credit losses on Belgian mortgage loans if conditions in the Belgian housing market were to become less buoyant than they have been over the past 15 years. The measures also aim to underscore the importance of sound credit standards at origination, as these play an important role in the development of imbalances in the residential property markets.

The Bank will continue to monitor developments in the Belgian housing and mortgage market very closely and reassess, at regular intervals, the appropriateness and the level of the 5-percentage-point add-on for banks with an IRB-model. This monitoring will take into account general market developments as well as changes in the credit standards applied by banks in their origination of new mortgage loans.

(1) Royal Decree of 8 December 2013 approving the regulation of 22 October 2013 of the National Bank of Belgium amending the regulation of 15 November 2011 of the National Bank of Belgium on the solvency of credit institutions and investment firms.