

The Belgian mortgage market in a European perspective

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Introduction

Loans for the construction, purchase and renovation of property are the principal financial liability of households and represent a large proportion of lending by banks. By that token, they are of crucial importance for the Eurosystem and have implications for the transmission channels through which monetary policy affects financial conditions and hence also activity and prices. They may also be the source of serious financial turbulence: in the United States, of course, but also in certain European countries, the mortgage portfolio held by banks suffered severely from the collapse of property prices.

This article aims to review the major structural changes in the mortgage market in Belgium in recent years, and compare them with those in euro area countries. For that purpose, it will be based on the main results of the Eurosystem's latest Structural Issues Report (SIR) entitled "*Housing finance in the euro area*", produced with the participation of the national central banks of the euro area and published in March 2009.

The first section will describe developments in mortgage lending over the past ten years and the characteristics of the loans. The situation in Belgium will be compared with that in other euro area countries: points to be examined include the pattern of household debt and the main characteristics of mortgage loans (interest rates, maturity, contract flexibility and banks' margins).

The second part will look at what has happened on the mortgage market from the lenders' point of view, focusing on the changes in the banks' financing methods

in recent years. That analysis will reveal the effects of deregulation and of the introduction of structured products, and the implications which those factors have had for the supply of credit.

The analysis will endeavour to describe and explain as far as possible the structural changes which have come about in the mortgage market in Europe in general and in Belgium in particular. The emphasis will therefore be on the changes occurring between 1999 and 2007, and not on differences in levels. That period corresponds to the period covered by the 2008 SIR report. However, it is not possible to omit the most recent period and the impact which the still ongoing financial crisis has had here, too. Where those effects are already evident, they will be outlined at the end of the article, with all due caution.

The data come from various sources. The figures for Belgium come from the financial accounts statistics and from the Professional Lenders' Union, which circulates information on mortgage volumes broken down, in particular, by type of rate. The scheme A data (monthly statements) supplied by credit institutions were also consulted in regard to securitisation volumes.

For the comparison with the euro area, the data came mainly from the SIR report already mentioned. The information in that report is collected jointly by the national central banks and the ECB. Certain data are also obtained from the replies to a specific questionnaire sent to commercial banks, concerning the characteristics of mortgages granted during 2007 and the way in which they were funded.

The figures on structured products (securitisation and covered bonds) were taken from the SIR report and from a Eurosystem report published in 2008, "Covered bonds in the EU financial system".

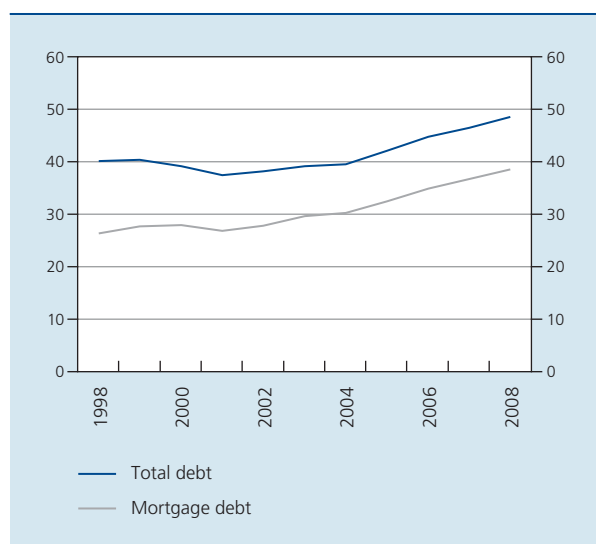
Finally, the results of the qualitative surveys conducted by the Eurosystem and relating to supply, demand and lending criteria (Bank Lending Survey) were also consulted to support the analysis

1. Mortgage loan developments and characteristics

1.1 Pattern of household debt in the past ten years: comparison between Belgium and the euro area as a whole

The past ten years have seen Belgian household debt increasing in relation to GDP. That decade can be divided into two phases. From 1998 to 2001 the debt remained more or less stable, or even declined slightly, while from 2001 to 2008 the total debt of households increased steadily. Thus, while the total debt represented around 38 p.c. of GDP at the end of 2001, by the end of 2008 the figure came to 48.6 p.c. of GDP.

CHART 1 BELGIAN HOUSEHOLD DEBT OVER THE PAST TEN YEARS
(percentages of GDP)

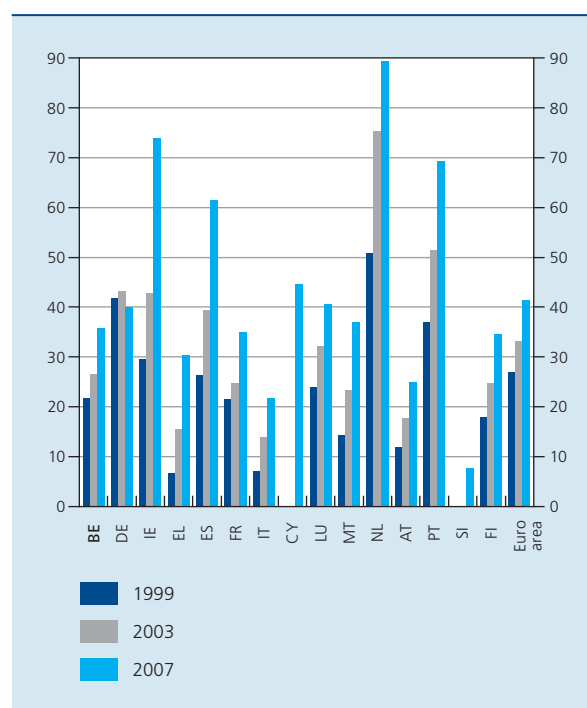


Source: NBB (Financial accounts).

Mortgage loans represent a large proportion of household debt. At the end of 2008 they accounted for almost 80 p.c. of the total outstanding loans to households, compared to 65.7 p.c. at the end of 1998. In relation to GDP, they mirrored the profile of total debt during the decade from 1998 to 2008: a period of relative stability between 1998 and 2001, followed by steady growth between 2001 and 2008. At the end of the period, mortgage loans to Belgian households totalled 133 billion euro, equivalent to 38.6 p.c. of GDP, against 26.4 p.c. in 1998.

The level of Belgian mortgage debt is comparable to that found in the euro area. In most countries, household debts relating to the construction, purchase and renovation of a home have risen as a percentage of GDP in the past ten years. The outstanding mortgages granted by euro area monetary financial institutions (MFIs) amounted to 42 p.c. of GDP at the end of 2007, compared to 27 p.c. at the end of 1999. Except in Germany, households in the various Member States of the euro area saw an increase in their mortgage debt between the two reference years. However, the level varies greatly from one country to another.

CHART 2 HOUSEHOLDS' HOUSING-RELATED DEBT IN THE EURO AREA ⁽¹⁾
(percentages of GDP)



Source: ECB, Housing finance in the Euro Area, 2009.

(1) Data reflect the outstanding total of loans granted by MFIs for the construction, purchase and renovation of property, including securitised loans.

The debts contracted by households for the purchase, construction and renovation of residential property increased particularly steeply in certain euro area countries between 2003 and 2007: that applies mainly to Spain and Ireland, and to a lesser extent to Portugal and the Netherlands. During those years, growth in Spain was based on the dynamism of the property market, which was accompanied by a property price boom and an increase in demand for mortgage loans. For a number of years, Ireland experienced one of the strongest growth rates in the euro area, and that in turn supported wages and property prices, driving up demand for mortgages.

At the same time, and despite the rising debt level, the low interest rates curbed the growth of interest charges for households. Expressed as a percentage of disposable income, those charges initially declined, on average, in the euro area between 1999 and 2003, before rising between 2005 and 2007, although not increasing as rapidly as the debt. In Belgium, interest charges fell throughout the period. While they exceeded the euro area average in 1999, they were below that average in 2007.

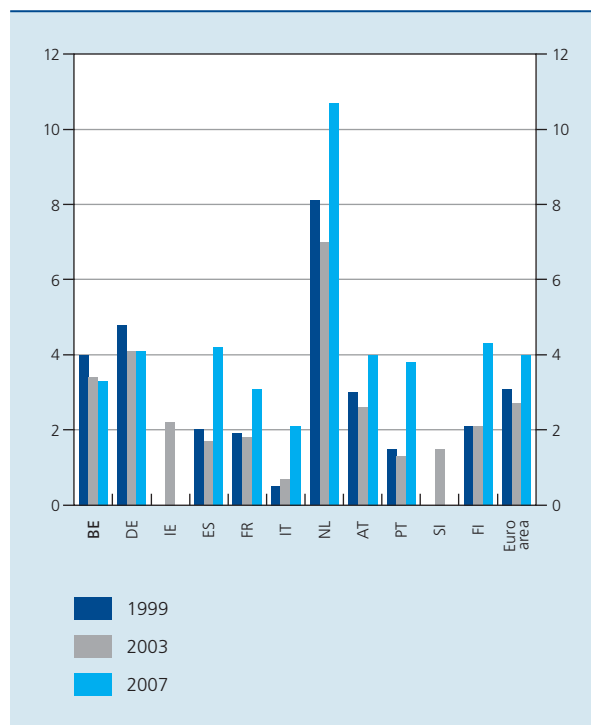
Interest charges increased particularly sharply in Spain, Portugal, Finland and the Netherlands; in that last country, their level is due mainly to the large proportion of households taking out a housing loan.

There are several common factors which account for the strong growth of mortgage lending in the euro area countries. Those factors include the low level of interest rates over the period considered, population growth, rising disposable incomes, rising property prices and the effects of the deregulation and liberalisation of financial services, augmenting both the number of lenders and the range of products offered.

First, the substantial rise in disposable income between 1999 and 2007 in all euro area countries increased the capacity of households to take on debts. The average growth ranged between 0.54 and 2.89 p.c. *per annum*, depending on the Member State.

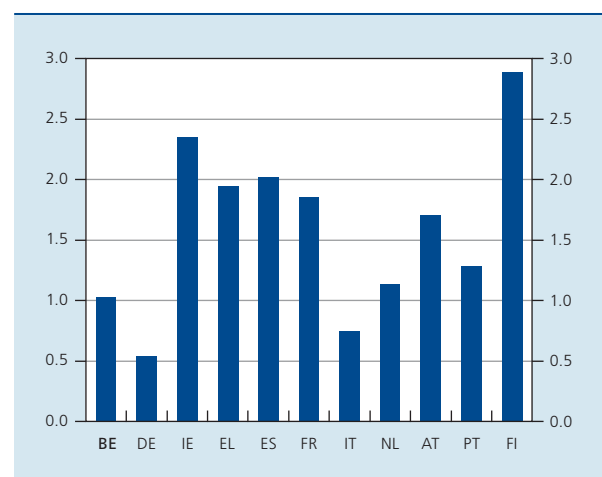
Second, generally speaking, low interest rates prevailed during the period under consideration, as is evident from the figures for the 3-month Euribor, often taken as the benchmark for short-term interest rates, and for the ten-year government bond which serves as the benchmark for long-term rates. It should be noted that interest rates on housing loans at variable rates are influenced by the benchmark rates after a shorter time lag than those on fixed-rate loans.

CHART 3 HOUSEHOLDS' INTEREST PAYMENTS⁽¹⁾
(percentages of gross disposable income)



Source: ECB, Housing finance in the euro area, 2009.
(1) No data available for Cyprus, Greece, Luxembourg and Malta. For Ireland and Slovenia only the 2003 data are available.

CHART 4 AVERAGE ANNUAL GROWTH RATE OF DISPOSABLE INCOME PER CAPITA IN EURO AREA COUNTRIES, 1999 TO 2007⁽¹⁾



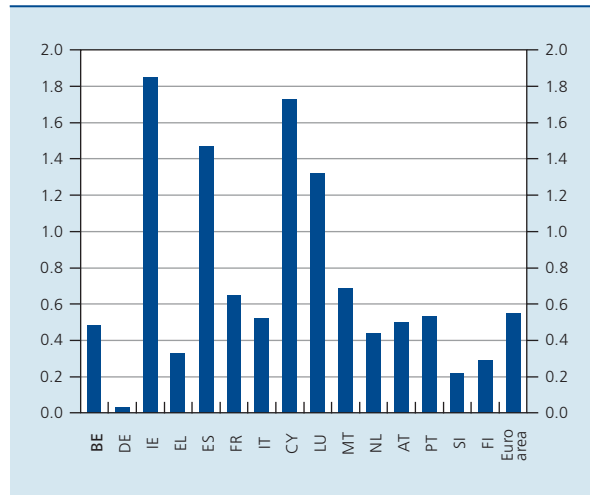
Source: ECB, Housing finance in the euro area, 2009.
(1) No data available for Cyprus, Luxembourg, Malta and Slovenia.

CHART 5 SHORT AND LONG TERM INTEREST RATES BETWEEN 1994 AND 2009



Source : ECB, Housing finance in the euro area, 2009.

CHART 7 AVERAGE ANNUAL GROWTH RATE OF THE POPULATION BETWEEN 1999 AND 2007⁽¹⁾



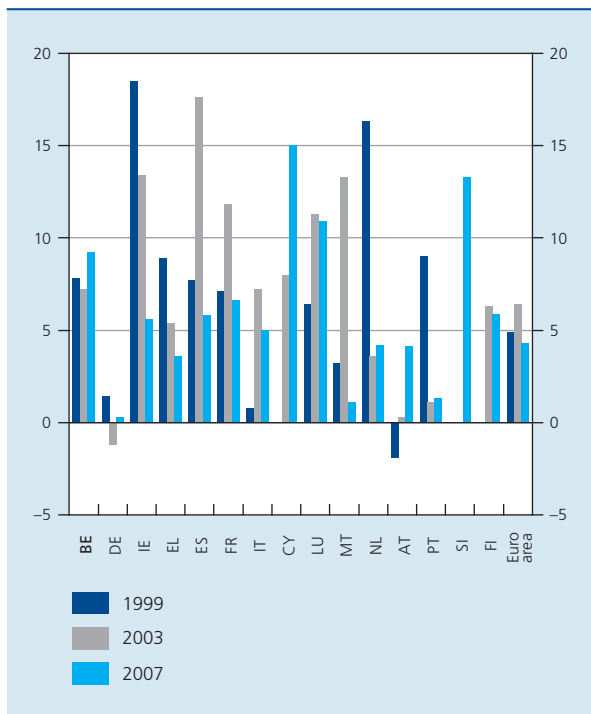
Source : ECB, Housing finance in the Euro Area, 2009.

(1) For Greece, the average growth rate relates to the period 2001-2007.

Third, rising house prices are another factor contributing to the increase in household mortgage debt. In the euro area as a whole, house prices increased by an average of 6.1 p.c. over the period considered. There is generally a

correlation between property prices and the associated lending. In recent years, the growth of these two factors was particularly marked in Ireland and Spain, although it is difficult to determine the direction of the causal relationship. It seems reasonable to assume that the two factors reinforced one another. House prices are driven by various factors, including household income and interest rates.

CHART 6 GROWTH RATE OF HOUSE PRICES IN 1999, 2003 AND 2007⁽¹⁾



Source : ECB, Housing finance in the euro area, 2009.

(1) For Luxembourg, the latest data relate to 2006.

In some countries, demographic factors may also have contributed to the rising demand for housing loans, either directly, by increasing the number of contracts concluded, or indirectly, by stimulating the rental market. In the euro area, the population increased by around 0.5 p.c. between 1999 and 2007, but growth rates of over 1 p.c. were recorded in Ireland, Spain, Cyprus and Luxembourg, partly reflecting positive net migration flows. In Spain and Ireland in particular, demographic factors appear to have contributed to the strong expansion of mortgage lending in recent years.

1.2 Main characteristics of mortgage loans

After reviewing the pattern of household debt contracted for the purpose of buying, building or renovating property, and the factors which determine that, this section describes and analyses a number of characteristics of mortgages, particularly those which are important for monetary policy. Those are the interest rate (fixed or variable), the loan-to-value ratio or LTV, the maturity of the loan, the repayment arrangements and the banks'

margins on the mortgages. The characteristics described usually refer to loans granted for a household's first purchase of a home.

A. INTEREST RATES

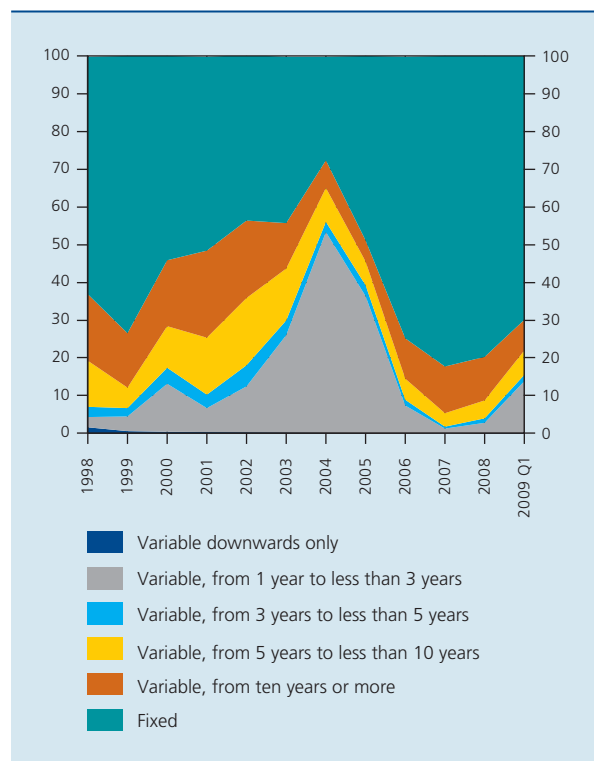
In Belgium, there has on average been a predominance of fixed interest rates on mortgages granted throughout the past decade, i.e. between 1998 and 2009. However, the year 2004 was an exception, as variable rate loans were in the great majority owing to the low short-term interest rates at that time. The proportion of fixed rate contracts therefore varies according to the level of interest rates, but in comparison with the euro area, a high proportion of contracts are concluded at a fixed rate or with a long initial fixation period.

In 2008, fixed rate contracts represented 80 p.c. of loans granted in that year, while variable rate contracts with an initial fixation period of ten years or more represented 11.5 p.c. The remainder consisted of variable rate loans with an initial fixation period of less than ten years. Loans at fixed or semi-fixed rates therefore accounted for over 90 p.c. of loans granted during last year.

In regard to variable rate loans, the Belgian law on mortgage lending lays down strict rules to protect consumers. Thus, variability is not permitted within less than one year, and the change in the rate must be linked to an official reference index (treasury certificates and bonds maturing in 1 to 5 years). Consequently, the extreme volatility of interbank rates which followed the financial crisis turbulence had no impact on mortgage interest rates in Belgium. Similarly, still on the subject of variable rate loans, upper and lower limits must be set, with the same margin in both directions. For that reason, banks offer products on which the risk to the borrower is limited to a deviation of 3 percentage points from the initial interest rate.

At euro area level, a minority of countries are in a situation similar to that of Belgium (predominance of fixed or semi-fixed rates): they are Germany, France and the Netherlands. Together, however, those countries represent around 65 p.c. of all loans granted in the euro area. In the other Member States, mortgages are usually granted at interest rates which are variable in the very short term: the initial rate fixation period is generally one year or less, and the rates can be adjusted monthly, quarterly, twice yearly or annually. It is mostly the Euribor with a corresponding maturity that is used to adjust these interest rates. In countries where loans denominated in foreign currencies play a significant role (Cyprus, Austria, Slovenia), the Libor

CHART 8 BREAKDOWN OF NEW MORTGAGE CONTRACTS BY TYPE OF RATE, IN BELGIUM⁽¹⁾
(annual data, percentages of the total amount)



Source: PLU.

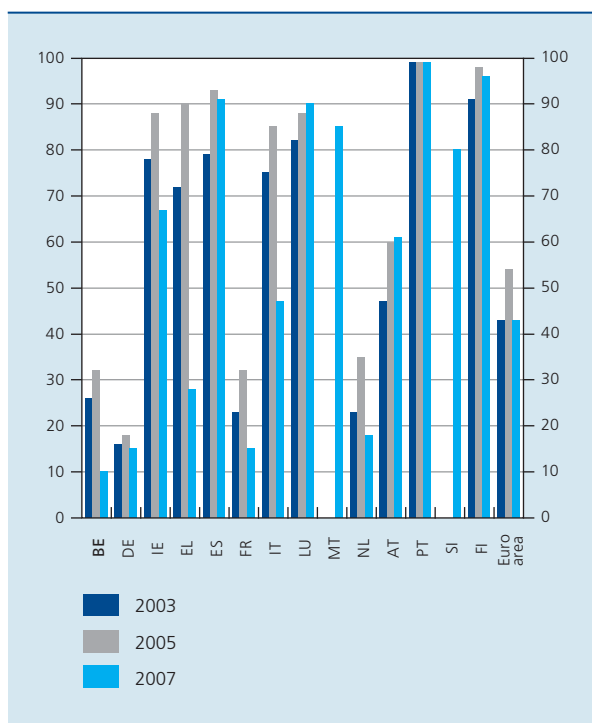
(1) In the case of variable rates, the term mentioned corresponds to the initial rate fixation period.

is also used as the reference for adjusting variable interest rates.

As in Belgium, the proportion of new lending comprising variable rate loans varies over time according to the respective levels of fixed (or semi-fixed) and variable rates, but these fluctuations do not fundamentally alter the above classification, except in the case of Italy and Greece where the proportion of variable rate contracts dropped sharply between 2005 and 2007. In general, variable rate loans predominated during 2005, probably because of the low short-term interest rates at that time. Subsequently, the trend was reversed in a number of countries, reflecting expectations of an increase in money market interest rates, an increase which did in fact materialise during the second half of 2005.

The substantial differences evident between Member States in regard to the proportion of variable rate loans, ranging from 10 to 99 p.c. in 2007, are partly attributable to trends in supply and demand, cultural and historical

CHART 9 SHARE OF VARIABLE RATE CONTRACTS IN NEW LOANS GRANTED IN EURO AREA COUNTRIES⁽¹⁾
(percentages of the total)



Source : ECB, Housing finance in the euro area, 2009.

(1) For the purposes of the SIR report, contracts were classed as variable rate loans if the interest rate was variable within a period of one year or less. If the initial fixed-rate period exceeded one year, mortgages were regarded as fixed rate loans.

factors (such as the history of inflation in the various countries), and institutional characteristics.

Among the factors on the demand side, the aspects to be taken into account concern cultural habits, risk aversion and the planning timescale of consumers. Thus, a long period of macroeconomic stability, particularly low inflation, may be conducive to longer term planning and may explain why fixed or semi-fixed rates have been and continue to be dominant in countries such as Belgium, Germany and the Netherlands.

On the supply side, bank funding practices may play a role. The information collected from banks for the SIR suggests that this is the case in Luxembourg, Slovenia and Finland. In those countries, variable rate loans predominate, in the same way as financing by means of short term instruments. Conversely, German banks issue long term covered bonds, which accord with household preferences for interest rates fixed in the longer term.

However, the replies to other points in the questionnaire indicate that in most countries the characteristics of the banks' mortgage portfolio are not determined by conditions governing access to longer term funding. In most cases, the causal link appears to operate the other way round, since the majority of banks state that the maturity of the mortgages determines the maturity of the funding instruments.

The level of financial market development may also have played a role in the past since, in some countries, the lack of an appropriate benchmark rate in the long term bond segment may have hampered the banks' supply of mortgages offering longer fixed-interest periods.

In the case of Italy, households' preference for variable rate loans is due partly to the fact that Italian banks used to charge high margins on fixed rate loans, in comparison with other euro area banks. That situation inhibited switching from one market segment to the other.

Spain provides a clear example of the influence of institutional factors on preferences for variable rate loans: until the law was changed in 2008, loans at rates of interest which were not fixed for the whole term of the loan were regarded as variable rate loans and were therefore subject to limited charges in the event of early redemption. According to the banks, those charges did not cover the investment risk. Consequently, the rates on loans with an initial fixed interest period of five or ten years tended to be high, making them less attractive to borrowers.

In some countries, the entry into force of Basel II may have heightened the banks' preference for variable rate loans, since such loans transfer the interest rate risk to households, reducing the amount of regulatory capital required.

Despite the differences in interest rates, a number of common tendencies relating to other characteristics of mortgages can be identified in the euro area countries. Thus, over the past decade the loan-to-value ratio has increased, loan maturity has increased, and loan repayment arrangements have been made more flexible.

B. MATURITY AND LTV

In Belgium, mortgages generally have a maturity of twenty years. There are no detailed statistics on the maturity structure of the loans, but according to some sources the average maturity increased between 2003 and 2007 from eighteen to twenty-one years. The maximum maturity offered before the start of the financial crisis had risen to forty years.

In the euro area, the standard maturity granted in 2007 varied from one country to another, ranging between twenty and thirty years. The maximum maturity was generally between thirty and forty years, but there were some longer maturity products (up to fifty years in Spain, France and Portugal, and up to sixty years in Finland), although they held only a small market share.

Since the introduction of economic and monetary union, the average maturity has increased in the euro area countries, as has the maximum maturity offered by banks. That is partially a reflection of the increase in property prices, which has forced households wanting to enter the property market to take out bigger loans, and these were only available with longer maturities. Moreover, the increase in life expectancy and the accompanying rise in the retirement age have also played a part in extending mortgage maturities. From the banks' point of view, the launch of longer maturity products on the market should be viewed in the context of stronger competition, the emergence of more favourable long term financing conditions and the development of new funding instruments with longer maturities (covered bonds, securitisation), although the direction of causality is difficult to ascertain.

The loan-to-value ratio measures the ratio between the amount borrowed and the value of the property constituting the collateral. In this respect, the banks have also made some adjustments to their policy in recent years.

In Belgium, although there are no official restrictions, in practice the banks make sure that the interest charges do not exceed 30 to 35 p.c. of the borrower's disposable income during the first year of the contract, though that proportion may increase (up to 50 p.c.) according to income level, job security, age, etc. The banks determine the maximum LTV on that basis. They generally charge a higher interest rate the higher the LTV. Presumably, the policy of granting preferential rates on loans with a lower LTV may have helped to maintain reasonable ratios in Belgium. In the recent period, the LTV has remained more or less constant at around 80 p.c., despite the increase in the average amount borrowed.

At euro area level, the standard LTV applied to a new contract in 2007 was around 80 p.c. in most Member States, ranging between 63 p.c. (Malta) and 101 p.c. (Netherlands). As in Belgium, there are not generally any restrictions on that ratio, but a limit may be defined in terms of capital adequacy and the provisions necessary for mortgage lending. If the LTV remains below a certain limit, mortgages are treated according to the standard procedure under the Basel II accord; conversely, above that level they are classed as riskier, which means that the

banks have to increase their capital provision. Similarly, a limit has also been set for loans eligible as collateral for covered bonds or mortgage bonds.

In most countries the LTV increased between 1999 and 2007. This rise was accompanied by an increase in contract maturities and the development of new types of loan allowing the postponement of repayment. In 2007 the LTV had already declined again in some countries such as Belgium, Ireland, Spain, Malta and Portugal, probably owing to the first effects of the financial crisis.

C. REDEMPTION SCHEMES AND CONTRACT FLEXIBILITY

Several types of loan redemption scheme coexist on the market. The commonest in the euro area countries is the redeemable loan, repaid in constant monthly instalments including the interest charges, which represent a diminishing proportion as time goes by, and the capital. This is the most popular repayment scheme in Belgium.

The interest-only scheme is defined by a monthly interest payment with repayment of the whole of the capital on termination of the contract. In 2007 these loans represented only a small proportion of the market, namely 7.5 p.c. in the euro area.

In some countries, credit institutions have extended the range of repayment schemes and introduced new products to permit smaller payments at the start of the contract (teaser loans). These comprise a reduction in the initial repayment costs, e.g. by including an "interest only" formula, followed by a redemption scheme or a period with no payments followed by a redemption formula. These new products have made it easier for certain types of borrower to obtain a mortgage, which has also helped to increase the outstanding credit supply.

The flexibility of the financial market relating to property indicates the ease with which households can modify some of the terms and conditions in their mortgage contract, or switch to a different type of loan with the same bank or another bank. In that connection, the scope for early redemption is a key factor, but the cost of taking out a new loan also plays a role.

Partial or total early repayment of the mortgage is permitted in all euro area countries. The charges associated with such early repayment generally represent a percentage of the amount outstanding, which depends on the amount of the loan, the type of rate (fixed or variable) and the time elapsing since the contract was concluded. In a number of countries, early repayment does not attract any charges in the case of variable rate loans, in contrast to

fixed rate loans. That is so in Finland, Greece, Luxembourg and the Netherlands. In certain cases, the early redemption clause may be inserted in the contract in return for an increase in the rate offered.

In Belgium, early redemption penalties are subject to a statutory maximum equivalent to three months' interest charges on the outstanding amount of the loan.

In principle, these charges are payable even if the early redemption is required on signature of a new contract with the same credit institution. However, it is sometimes possible to renegotiate the terms of the loan. If a loan is repaid early in order to conclude a contract with another credit institution offering better rates or other more attractive products, such a change entails, in addition to the early repayment penalty, the charges for concluding a new mortgage contract (notary's fees, registration fees, administration fees and search charges). However, in Italy a measure providing for mortgage portability has been introduced, making it possible to switch lenders free of charge so long as the amount of the new loan corresponds to the outstanding amount of the original loan.

Chart 10 shows the charges incurred in arranging a mortgage, expressed as a percentage of a standard sized loan granted in 2007 to a first-time buyer household purchasing a property for its own use. The costs taken

into account are those directly entailed in concluding the contract (and not the purchase of the property itself), whether they are fixed by law or normally charged by the lender. Some of those costs vary according to the amount of the loan, others are fixed, their exact nature varying from one country to another. Non-bank charges, for example, may include notary's fees, contract registration fees or other charges laid down by law. There are marked differences between countries, as the costs range from 3.7 p.c. of the loan sum in Belgium (of which 2.7 p.c. are non-bank charges: notary's fees, registration fees and insurance costs) to practically 0 p.c. in Finland, but this comparison is only a guide since it was necessary to make simplistic assumptions owing to the complexity of some cost structures, substantial differences being apparent between credit institutions in the same country, and to the extent to which certain charges depend on specific circumstances.

D. BANKS' MARGINS ON MORTGAGES

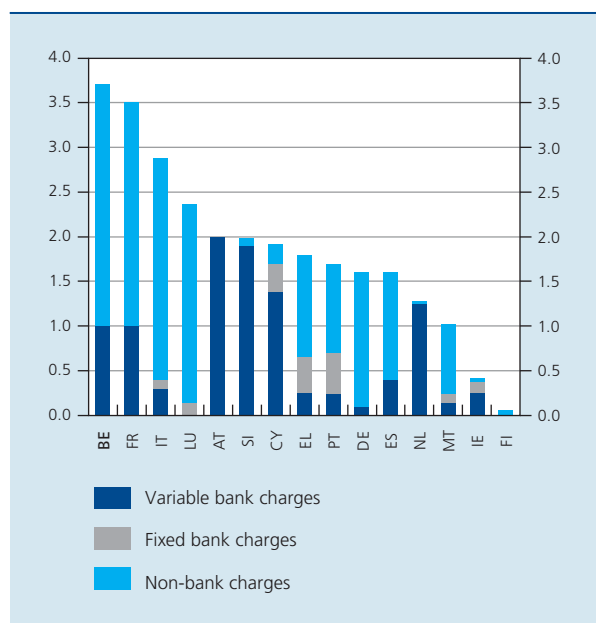
The income which banks derive from mortgages can be compared with their funding cost or their opportunity cost. This shows a margin which varies in particular according to the loan characteristics (e.g. the type of rate charged), the borrower's default risk and the competition between credit institutions.

Various types of margin were calculated for the SIR report. However, the statistics needed for that purpose have only been available since 2003, a relatively short period which does not cover a full economic cycle. At the same time, the period from 2003 to 2007 was special in that credit terms were eased considerably during those years.

Chart 11 shows the margins between the rate charged on a standard mortgage and the opportunity cost. Since the standard loan in Belgium comprises a fairly long initial fixation period, the comparisons were made on that basis with countries for which the comparison was relevant, i.e. those where the volume of new fixed-rate loans represented on average at least 20 p.c. of total new loans between 2003 and 2007. The opportunity cost is based on the assumption of a risk-free investment of a corresponding maturity (linear bonds in Belgium, for example).

For countries where the commonest type of mortgage comprises a relatively long initial fixation period (Belgium, France, Germany and the Netherlands), the biggest margin, on average, during the years 2003 to 2007, in relation to the opportunity cost was found in Germany and the Netherlands, while it was smallest in Belgium and France.

CHART 10 CHARGES ASSOCIATED WITH A MORTGAGE IN THE EURO AREA, IN 2007
(percentages of a standard housing loan)

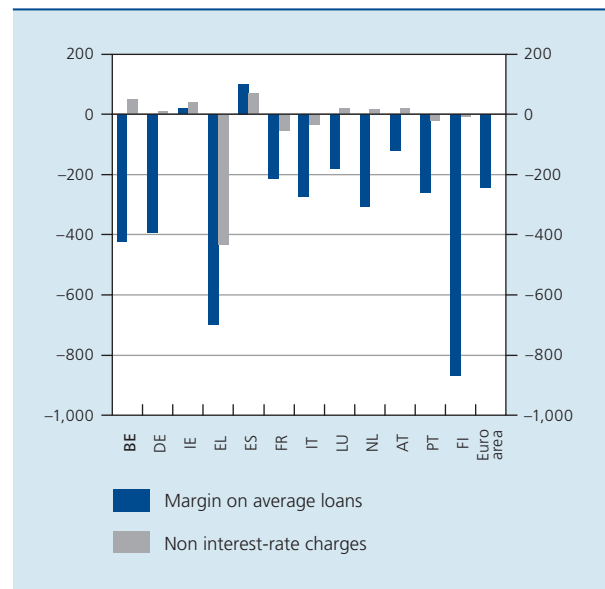


Source: ECB, Housing finance in the euro area, 2009.

The margin was relatively large in countries where fixed or semi-fixed rate loans are less common (Ireland, Greece, Italy), which may explain why households in those countries were more inclined towards variable rate loans. In France, the margin on mortgages was negative in 2007, probably owing to the effects of cross-selling: during that period it was possible for mortgages, which may establish a long-term relationship with customers, to be subsidised by other bank products. In Greece, margins declined sharply between 2003 and 2007, becoming practically zero in 2007, a year in which many Greek households replaced their variable rate loan with a fixed rate loan.

Regarding developments over time, spreads declined in practically all the countries considered between 2003 and 2007. That situation is confirmed by the results of the Bank Lending Survey. If the net percentages are added up, we find a significant fall in the margins on average mortgages in most European countries. The picture regarding non-interest rate charges is more varied between countries. While a fall in margins was accompanied by a reduction in this type of charges in some countries, banks in other countries seem to have increased the non interest rate charges to compensate somewhat for the decline in the level of margins.

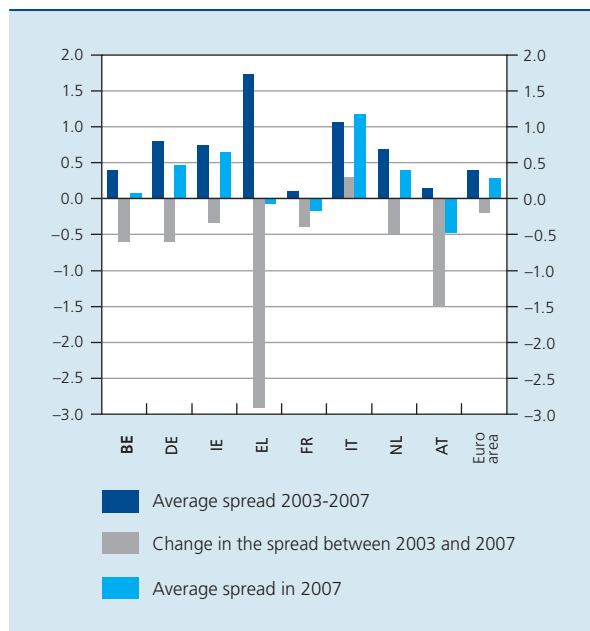
CHART 12 ADJUSTMENTS TO MARGINS AND CHARGES ON AN AVERAGE MORTGAGE⁽¹⁾
(cumulative net percentages, 2003 to 2007)



Source: ECB, Housing finance in the euro area, 2009.

(1) The net percentages correspond to the difference between the sum of the percentage of responses to the BLS indicating a tightening and the sum of those indicating an easing. Cumulated over five years, they may indicate substantial movements.

CHART 11 SPREAD BETWEEN THE RATE CHARGED ON A STANDARD MORTGAGE (INITIAL FIXED RATE PERIOD EXCEEDING FIVE YEARS) AND THE RETURN ON A RISK-FREE INVESTMENT
(interest rate on new contracts; percentage points)



Source: ECB, Housing finance in the euro area, 2009.

To sum up, common trends have been apparent in recent years regarding the characteristics of mortgages granted in the fifteen euro area countries: the LTV has risen, loan maturities have lengthened, and loan repayment arrangements have become more flexible. Those trends have made it easier for households to gain access to the mortgage market and have improved the operation of that market. At the same time, substantial differences persist, e.g. in regard to the percentage of fixed and variable rate contracts. Those differences may be attributed to historical or cultural factors and to specific institutional characteristics.

2. Bank funding structure

Having examined patterns of demand and the main characteristics of mortgages, we shall now focus on the funding of banking institutions, in order to provide a picture of the banks' funding strategies. The differences between euro area countries will be highlighted, together with the changes observed since the end of the 1990s.

2.1 Funding structure developments over the past ten years

In recent years, financing the acquisition of a home for individuals has become a growth area of activity for banks in the euro area. At the end of 2007, loans granted to households for the construction, purchase or renovation of a property accounted for 32 p.c. of all lending to non-financial sectors, 5 percentage points higher than the 1999 figure. Moreover, this growing proportion is a common trend evident in all Member States.

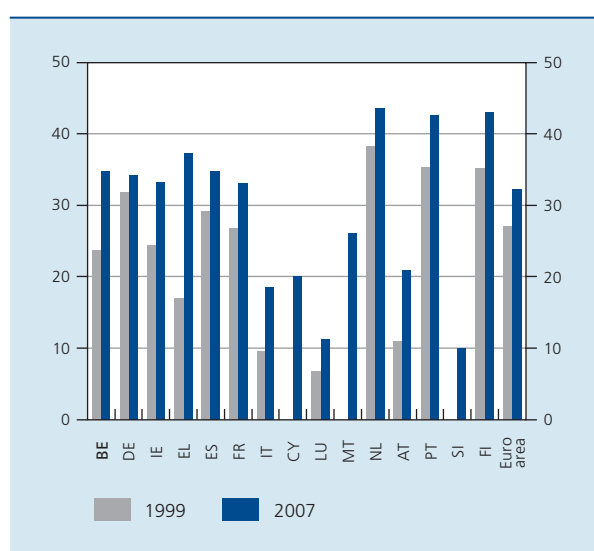
Except for some specific instruments, the banks use their normal funding sources to finance mortgages. In that regard, customer deposits remain the principal source of funding. In recent years, however, a number of factors have contributed to the expansion of the alternative funding sources available to credit institutions. These include the development of a deeper and more integrated European bond market, thanks to the introduction of the euro, financial and technological innovations, and financing conditions which were generally extremely favourable. That situation led to a shift towards more market-based funding structures.

One of the factors accounting for the observed changes in the funding structures of euro area banking systems, at least until the start of the financial crisis in mid 2007,

is the strong growth of lending activity in general, and mortgages in particular. From 1997 to 2007, loans to non-financial sectors (including loans derecognised from bank balance sheets following securitisation) increased by 40 p.c. in relation to GDP. At the same time, loans to households for the acquisition, construction and renovation of a residential property increased by 15 percentage points to the equivalent of 38 p.c. of GDP. In absolute terms, the outstanding total of these loans more than doubled over that period. This impressive growth was not followed by a similar rise in traditional deposits by non-financial sectors in the euro area, their amount remaining more or less constant in relation to GDP. This widening gap between loans granted and deposits received was financed by greater recourse to market-based funding, in the form of debt securities and money market loans.

However, it would be misleading to try to establish a one-way causality between the two phenomena, starting from a growing gap between loans and deposits to arrive at the diversification of funding sources. Indeed, part of that gap must be due to the existence of these alternative funding sources, which enable banks to expand their lending activities in a context of growing demand and keener competition.

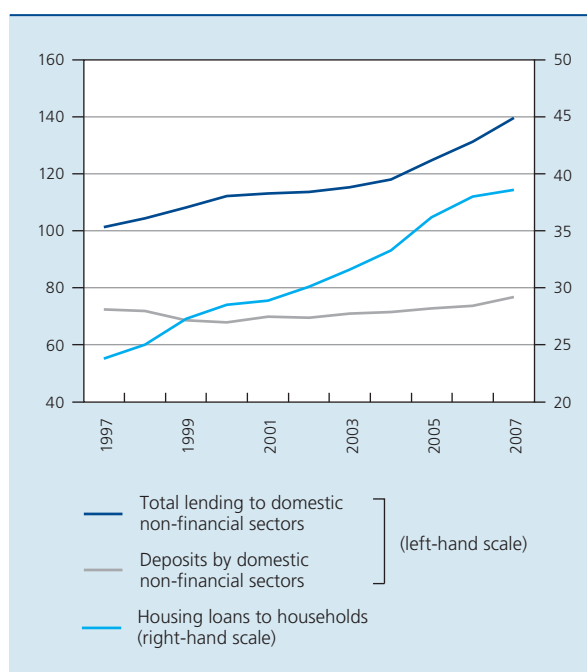
CHART 13 SHARE OF HOUSING LOANS TO HOUSEHOLDS IN TOTAL MFI LOANS TO THE NON-FINANCIAL SECTORS IN THE EURO AREA ⁽¹⁾
(percentages, fourth quarters of 1999 and 2007)



Source: ECB, Housing finance in the euro area, 2009.

(1) Including estimates of loans derecognised from the balance sheet by securitisation.

CHART 14 GAP BETWEEN LOANS GRANTED AND DEPOSITS COLLECTED BY CREDIT INSTITUTIONS IN THE EURO AREA ⁽¹⁾
(percentages of GDP)



Source: ECB, Housing finance in the euro area, 2009.

(1) Including estimates of loans derecognised from the balance sheet by securitisation.

Banks in the Member States where lending to non-financial sectors recorded the strongest cumulative increase over the period 1999 to 2007 – namely Spain, Ireland, the Netherlands and Portugal – are the ones which have made the most use of market-based funding to fill the widening gap between deposits and loans.

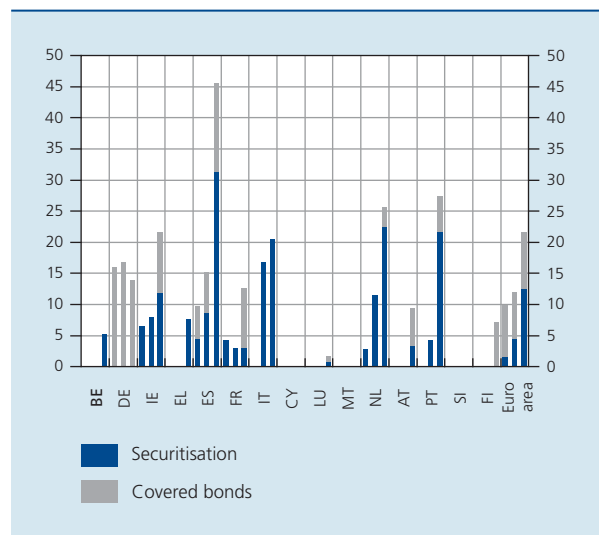
That phenomenon is also evident, though less marked, in other countries except Germany, where the expansion of traditional deposits slightly outpaced the growth of lending activity, which declined over the same period.

The relative importance of the various sources of bank funding has changed over time. Between the end of 1999 and the end of 2007 there was a decline in funding obtained from the deposits of resident non-financial sectors, though on average they are still the principal source of funding for euro area credit institutions. Belgium stands out as one of the countries where these deposits still represent a particularly large share of the funding.

The share of deposits originating from financial institutions (other than MFIs), including securitisation, increased between these two dates, while that of non-interbank deposits from the rest of the world remained stable. Finally, the relative proportion of debt securities in total

CHART 16 SECURITISATION AND COVERED BONDS IN 1999, 2002 AND 2007

(percentages of housing loans to households; fourth quarter data)



Source: ECB, Housing finance in the euro area, 2009.

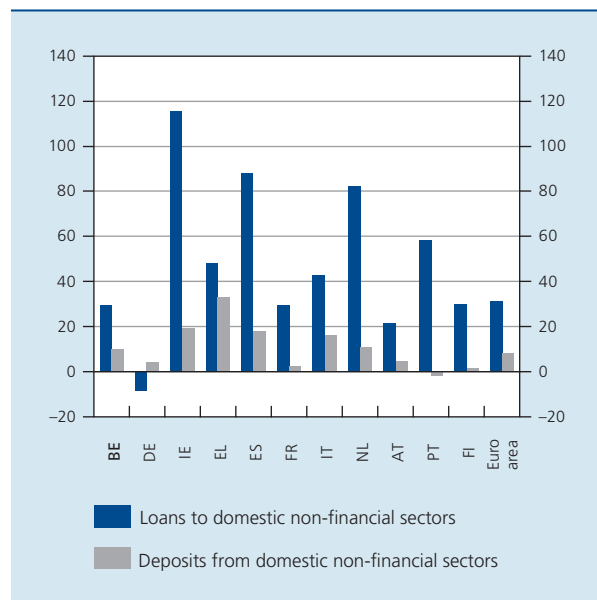
funding increased slightly, while that of interbank deposits showed a small decline.

During the period preceding the financial crisis, there was a large increase in the outstanding total of mortgage-backed securities, as is evident from the figures relating to guaranteed funding, broken down into the issuance of Residential Mortgage Backed Securities, or RMBS, and bonds backed by those same loans (covered bonds), as a percentage of the total housing loans to households. Altogether, in the euro area, these two types of products represented around 21 p.c. of the total housing loans outstanding at the end of 2007 (compared to 10 p.c. at the end of 1999), with significant differences between countries.

The countries where the outstanding total of loans to domestic non-financial sectors expanded much more strongly than the deposits of those sectors (Ireland, Spain, Portugal and the Netherlands) had to make substantial use of covered bond issuance and securitisation.

Conversely, some countries such as Belgium, Finland, Greece and Luxembourg⁽¹⁾ began the period under consideration with a high deposit to loan ratio, enabling them to avoid large-scale recourse to market-based funding sources, particularly covered bonds and securitisation.

CHART 15 EURO AREA MFI LOANS AND DEPOSITS: CUMULATIVE CHANGES FROM 1999 TO 2007⁽¹⁾
(percentages of GDP)



Source: ECB, Housing finance in the euro area, 2009.

(1) Including estimates of loans derecognised from the balance sheet by securitisation.

(1) In Portugal, the ratio of deposits to loans was initially high, but the rapid decline in deposits in relation to total loans was offset by expanding securitisation and net interbank funding.

2.2 Covered bonds and securitisation

This section sets out the main characteristics of covered bonds and securitisation, and the principal differences between these two types of products. In the case of mortgage lending, securitisation takes the form of residential mortgage backed securities (RMBS).

Covered bonds are bonds issued by a credit institution. These bonds are mainly backed by mortgages (or possibly local authority loans). They feature a direct link with the funding of these loans. Unlike in the case of securitisation, both the asset and the risk generally remain on the issuer's balance sheet.

The bond holders have a dual right of recourse: on the issuing institution and on the underlying assets. For investors, the advantage is that they enjoy relatively high yields at comparatively low risk, a factor which has encouraged the development of this market segment in recent years.

In contrast, securitisation is a financial device which enables a company to improve the liquidity of its balance sheet. Technically, assets selected according to the quality of their collateral are placed in an ad hoc company which purchases the assets with funding raised by the issuance of securities subscribed by investors. This technique was originally used by credit institutions to refinance part of their outstanding loans, i.e. to transform customer loans into marketable securities.

From the issuer's perspective, covered bonds and RMBS have many advantages. Collateralised securities carry higher credit ratings, thus providing long-term funding at relatively low cost and helping issuers to bridge their

funding gaps. They also enable issuers to diversify and broaden their funding sources.

At the same time, there are several important differences between covered bonds and securitised products such as RMBS.

In general, covered bonds remain on the issuer's consolidated balance sheet, whereas in the case of an RMBS issue the collateral is transferred to a special purpose vehicle (SPV) which issues the securities. The originator and the issuer are therefore not the same in the case of RMBS.

Securitisation in the form of RMBS enables the issuer to transfer the risk and eliminate it from his balance sheet; that therefore reduces the amount of capital required.⁽¹⁾ In contrast, covered bonds are used first and foremost to raise finance.

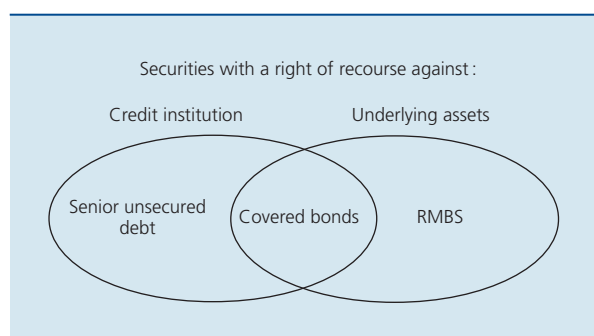
The collateral used in connection with covered bonds has to satisfy specific criteria, generally laid down by law, *inter alia* in terms of the maximum LTV permitted. These criteria ensure that the underlying assets are of good quality.

Unlike RMBS, covered bonds are dual recourse instruments. Investors are preferential creditors of the issuer; they also have a preferential claim on the underlying assets (cover pool), if the issuer defaults.

The collateral pool underlying covered bonds is usually dynamic, which means that the assets involved may be replaced when they mature or if they cease to meet the eligibility criteria. Conversely, the RMBS collateral pool is generally static. While covered bonds are predominantly fixed-income securities, interest rates on RMBS are usually variable.

Subdivision of the pool into a number of tranches is common in the case of RMBS, but not for covered bonds. The issuer can thus adapt the tranches according to the specific needs of the investors.

CHART 17 COVERED BONDS: A DUAL RECOURSE INSTRUMENT



Source: ECB, Covered bonds in the EU financial system, 2008.

(1) This refers solely to the "true sale" type of securitisation whereby the securitised loans are generally removed from the originator's balance sheet, the risks and rights relating to the assets being transferred to the SPV.

TABLE 1 COMPARISON BETWEEN COVERED BONDS AND RMBS

	Collateralised bonds	RMBS
Purpose of issue	Refinancing	Risk reduction, less stringent regulation, refinancing
Issuer	Loan issuer	Specialist entity
Recourse to original issuer	Yes	No
Structure	The assets generally remain on the balance sheet but are identified as belonging to a cover pool	The assets are transferred to the specialist entity
Impact on the issuer's capital requirements	None	Reduction
Legal restriction on eligible collateral	Yes, if the issue refers to the legislation on covered bonds (limit on LTV, for example)	Usually none
Asset management	Usually dynamic	Predominantly static
Transparency of assets for the investor	Limited (but quality is regularly monitored by specialist public or independent agencies)	Limited
Tranching	None	Usual
Coupon	Largely fixed rate	Predominantly floating rate

Source: ECB, Covered bonds in the EU financial system, 2008.

A. COVERED BONDS

Between 2003 and 2007, the value of the outstanding total of mortgage-backed bonds increased by 80 p.c. in the euro area. While this instrument had been used in Germany for a very long time, the widespread use of this funding source developed more recently in other euro area countries. However, in the absence of a homogenous, integrated market, there are substantial divergences.

In essence, the recent developments in this field have been driven largely by changes to laws and regulations (introduction of legislation in the Netherlands in 2008, and in Ireland in 2001, for example), and by the dynamism of the property market (Spain, Ireland, France). At present, three countries dominate covered bond issues in the euro area,⁽¹⁾ namely Germany, Spain and France.

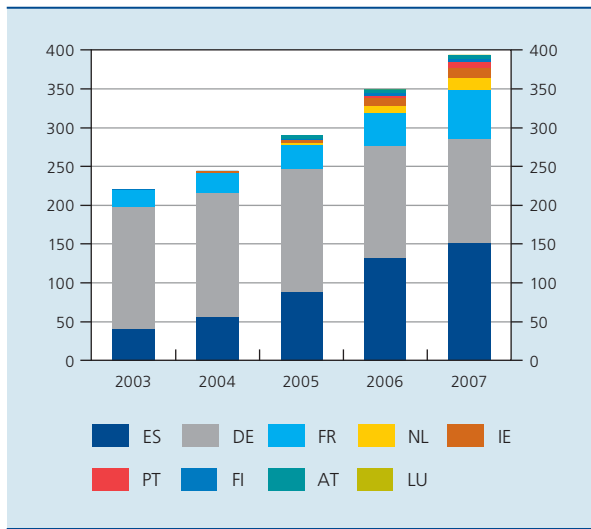
Spain recorded the most significant developments in this field owing to the property market boom. This dynamism and the accompanying strong demand for mortgages were underpinned by the issuance of covered bonds, their share in the euro area rising from 18 p.c. in 2003 to 39 p.c. in 2007.

In France, the dynamism of the property market was also sustained during this period and the outstanding total of covered bonds tripled, representing 16 p.c. of the outstanding total for the euro area in 2007, against 6 p.c. in 2003.

With regard to the framework of laws and regulations, a distinction has to be drawn between the international level and specific national developments. At European level, the 1985 directive on the operation of undertakings for collective investment in transferable securities (UCITS) stipulates that these entities may invest up to 25 p.c. of their assets in covered bonds from a single issuer, subject to certain restrictions. Also, if certain conditions are fulfilled (e.g., the LTV ratio), the covered bonds qualify for a more favourable associated risk weighting under the European Capital Requirements Directive adopted in 2006. These two types of regulation have probably contributed to the popularity of covered bonds.

(1) However, these figures must be interpreted with some caution. On the basis of the available data it is not in fact possible to distinguish between residential and commercial covered bonds. Moreover, the national relative shares and outstanding amounts may be biased because international entities can issue covered bonds through subsidiaries in foreign countries. The data are available by country of issue and not by the issuer's nationality.

CHART 18 OUTSTANDING AMOUNT OF MORTGAGE COVERED BONDS: BREAKDOWN BY COUNTRY OF ISSUE
(billions of euro)



Source: ECB, Housing finance in the euro area, 2009.

From the national point of view, a number of countries have recently developed their own specific legislative framework. Only Cyprus and Belgium have not yet introduced legislation on the issuance of this type of securities. The Netherlands is a special case, since before the adoption of a specific law the issuance of these products was based on contractual agreements under the civil code.

B. SECURITISATION

Securitisation is a recent phenomenon in the euro area, having only become a significant source of funding for banks since 2002. In 2007, the share of securitised mortgages eliminated from the banks' balance sheet was estimated at 7 p.c. of the total. As a percentage of GDP, the figure was around 3 p.c.

The slow development of this market in comparison with the United States is due to several factors. First, the main euro area banks were well capitalised at the time when this type of product became available. Next, the legislative framework was usually lacking and had to be developed. The past ten years have seen numerous legislative and regulatory procedures at both national and European level facilitating the development of securitisation markets.

Another factor which has stimulated the recent growth of securitisation is the introduction of the euro, which has promoted financial integration and the development of a more market-based financial system. This has led to an

increase in the liquidity and volume of MFI securitisations. At the same time, technological progress has improved financial data processing and pricing, leading *inter alia* to a reduction in the costs entailed in the issuance of RMBS.

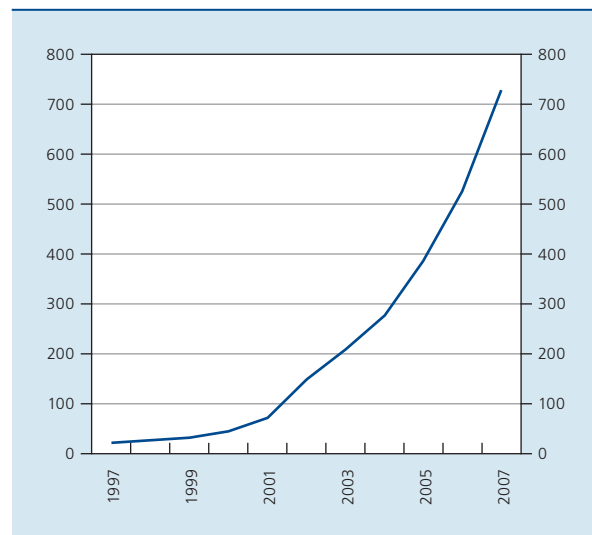
Despite that, MFIs in a number of euro area Member States have developed only a low level of securitisation activity, if any. Recourse to securitisation in fact depends on various factors, including the legislative framework, but also on the national mortgage market structure.

As in the case of covered bonds, issuance of securitised products (RMBS) was highest for MFIs of countries with the strongest demand for mortgages, namely Ireland, Spain and the Netherlands.

In Belgium, securitisation operations remained very limited until the end of 2007. The market in these securities was small and rather illiquid, so that the costs associated with operations of this type could not be recouped. However, in the recent period (2008 and 2009) there has been a very steep rise in the issuance of these securities, as a number of Belgian banks facing serious liquidity problems obtained funds via securitisation operations.

Overall, the figures presented above reveal a general trend towards more market-based funding sources, particularly structured products. The introduction of new legislation and the amendment of older regulations have

CHART 19 SECURITISATION OUTSTANDING IN THE EURO AREA BETWEEN 1997 AND 2007⁽¹⁾
(billions of euro)



Source: ECB, Housing finance in the euro area, 2009.

(1) The data reflect only securitisation via resident SPVs, so that total activity is underestimated.

enabled banks to make use of different funding sources, encouraging diversification and access to the financial markets.

The increased use of funding via the financial markets has also led to an extension of the average contractual maturity of the liabilities and easier access for foreign investors. That is particularly true in countries where the housing loan market has developed most rapidly in recent years (Spain, Netherlands and Portugal). At the same time, the shift from funding based on retail deposits to wholesale financing has reflected the wider the access to the domestic market for foreign savers and the banking system's capacity for financing the domestic sector's demand for loans by recourse to funds originating abroad.⁽¹⁾

3. Impact of the financial crisis

The financial crisis which erupted in the summer of 2007 totally overturned the developments described above. The degree to which this crisis will have contributed to a reversal of the trends seen in the past decade regarding the funding structure of euro area MFIs can only be assessed in the longer term.

True, the Belgian consumer has been well protected, both by prudent legislation (limits on interest rate changes, relatively low LTV ratio) and by the relatively modest growth of mortgage debt, itself due to a moderate rise in property prices. Despite a small increase in the first half of 2009, the default rate has remained very low, at 1.1 p.c. of the total loans recorded as at 30 June 2009.

Conversely, there has been a noticeable impact on bank funding, as it has become increasingly difficult to raise new funds on the financial markets via covered bonds or securitisation, owing to the increased risk aversion of investors and the uncertainty over the scale of the banks' exposure to the assets in question. The volume of

trading on markets dedicated to these funding methods has declined considerably owing to the lack of liquidity. In regard to debt securities, between June 2007 and June 2008 the total net issuance of medium or long-term instruments by euro area MFIs dropped by 64 p.c. in comparison with the previous twelve months.

Liquidity on the securitisation market has steadily dried up. Very opaque and complex segments were the first to be affected. As the crisis deepened, the other market segments, including RMBS, were also hit. Issuance of asset-backed securities, particularly those based on property, declined and at the same time yields on RMBS and covered bonds increased. According to estimates, in 2008 most of the euro area asset-backed securities were held for use as collateral with the Eurosystem.

Faced with a drought afflicting the interbank market and money market securities, the banks responded to this unprecedented situation by becoming more aggressive in attracting deposits. At the same time, investors – who had become far more risk averse – once again turned to bank deposits. The depth of the crisis revealed the great potential instability of funding sources based on the market, highlighting in particular the vulnerability of interbank loans to the crises of confidence which accompany periods of intense financial turbulence.

The policy adopted by the authorities did much to remedy this situation: the ECB provided liquidity on a massive scale, and governments endeavoured to restore confidence in the banks, notably by arranging their recapitalisation. It is still uncertain whether these measures will be sufficient to restore confidence and avoid a credit squeeze, including restrictions on mortgage lending. For that purpose, the banks must first secure stable long-term funding, directly linked to mortgage lending activity. The issuance of covered bonds should contribute towards that in Belgium. Moves to rectify the gaps in the current legislative framework are therefore expected.

(1) For example, the *Banco de España* estimates that, at the end of 2007, 66 p.c. of securitised bonds issued by Spanish institutions were held by foreign investors.

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