



# ANALYSES ET SYNTHÈSES

 Housing finance in France in 2016

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## Overview

- ❑ Activity in the residential real estate market, encouraged by interest rates on housing loans that fell to an all-time low of 1.50% in December, was once again buoyant in 2016, illustrated by the 6% increase in existing home sales. Furthermore, prices for both new and existing properties were up again, by 2.9% and 1.7%, respectively, while the latter market segment recorded price rises of 4.4% and 3.1%, respectively, in Paris and the Île de France region. The slight increase in interest rates in first-quarter 2017 looks to have amplified this upturn in activity, encouraging some borrowers to bring forward their transactions in order to benefit from the existing accommodative financial conditions.
- ❑ Annual new housing loans extended by French banks (EUR 251.5 billion at December 2016) reflected this favourable environment, continuing to grow at a robust rate, particularly since the second half of 2016. It was up EUR 47.3 billion in December 2016 on its previous high in 2015 (an annual amount of EUR 204.2 billion) and according to Banque de France figures reached EUR 321.2 billion in April 2017. As in 2015, while loan transfers and renegotiations may have boosted growth in new lending, we can also see a solid increase in the other market segments, where new lending in general increased by 11% according to monthly monitoring data collected by the General Secretariat of the *Autorité de contrôle prudentiel et de résolution* (ACPR). Lastly, taking into account amortisation, the growth rate of outstanding loans (which stood at EUR 899.4 billion at end-2016) was largely unchanged, decreasing slightly from 4% at the end of 2015 to 3.8% at the end of 2016. Even though it accelerated sharply at the beginning of 2017 (5% growth rate at the end of April), it is still well below the levels seen in the mid-2000s, when it drew close to 16% at the end of 2006, or in 2011, when it reached almost 10% in the middle of the year.
- ❑ As in previous years, the overall assessment of banks' risk exposure on housing loans in France remained broadly positive:
  - Due to the continuing fall in interest rates, fixed rate loans accounted for almost all new lending (97.9%) and an ever-increasing proportion of outstanding loans, up 2.5 percentage points (pp) to 90.7%. The impact of an upturn in interest rates on borrower default risk would therefore be very limited.
  - Banks still appear to be relatively well shielded against a price shock, even if the loan-to-value (LTV) ratio for outstanding loans deteriorated slightly by 1.3 pp to 69.4%.
  - The vast majority of outstanding loans are secured, with the proportion of guarantees from a credit institution or insurance undertaking continuing to increase compared with loans guaranteed by a mortgage. In order to assure the risk coverage provided by guarantor bodies, the ACPR College also decided to impose a new minimum capital requirement (resilience level) set at 2% of the outstanding loans guaranteed by market participants (compared with an average cost of risk of 0.06% since 2006). This new requirement will take effect as of 1<sup>st</sup> January 2018.
  - Finally, the ratio of non-performing housing loans fell back for the first time since the financial crisis, down 3 basis points (bps) to 1.54%. Furthermore, the cost of risk as a ratio of outstanding loans declined for the second consecutive year, by 0.4 bps to 5.9 bps.
- ❑ While the risks in respect of outstanding housing loans still appear to be contained, lending policies, which continue to be based primarily on borrower solvency rather than on the value of the financed property, were relaxed to a certain degree in 2016:
  - Average loan size (up 6% year-on-year to EUR 157.9 thousand) and LTV at origination (up 30 bps on average to 85.9%, and 63 bps to 84.7% excluding transfers) continued to increase in line with the trends observed

in 2015 and before. However, a new development is the deterioration in other indicators that had been improving over several years. For example, the initial loan maturity lengthened by more than seven months to 18.6 years and the debt service ratio increased by 18 bps to 29.6%. Against this backdrop, the loan-to-income (LTI) ratio, which shows how many years of income the borrower would need to repay the loan, climbed by almost four months to 4.7 years and thus exceeded its previous historical high recorded in 2010. A certain degree of normality resumed however at the beginning of 2017, with slight decreases in the debt service ratio and initial maturity.

- As a result of the surges of loan transfers and renegotiations that magnified the decrease in the average interest rate of outstanding housing loans, the margins on those outstanding loans, which had remained constant at around a positive 0.4% since mid-2014, dropped rapidly in 2016 to a positive 0.05% at the end of the year (ACPR estimations) – a level inferior to the cost of risk; even if loan transfers dropped off sharply in April 2017 (down 23.3% in monthly volume compared with March), since interest rates at origination are still significantly lower than the average rate for outstanding loans and a new decrease in banks' cost of funding seems unlikely, this decline should continue over the coming half-year periods.

Keywords: housing loans to individuals, average loan amount, average maturity, loan-to-value ratio, debt service ratio, non-performing loans and provisions, cost of risk.

JEL codes: G21, R21, R31

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## Preliminary comments

- ❑ This study is based on the information gathered through the 2016 annual survey by the General Secretariat of the ACPR (SGACPR) as well as on the ACPR's monthly monitoring of new housing loans to individuals, which was set up in September 2011 and covers a sample of banks representing 96.8% of outstanding housing loans to individuals at 31 December 2016<sup>1</sup>. The study also draws on additional external sources of information including the Banque de France, INSEE and the CGEDD (French sustainable development council), as well as data published by the European Banking Authority (EBA) as part of its annual EU-wide transparency exercise,<sup>2</sup> which allowed us to make certain international comparisons.
- ❑ As in 2015, the SGACPR contacted the main housing loan guarantors – Crédit Logement, Caisse d'Assurances Mutuelles du Crédit Agricole (CAMCA; Crédit Agricole Group), Compagnie Européenne de Garanties et Cautions (CEGC; BPCE Group), Parnasse Garanties (BPCE Group) and Cautionnement Mutuel de l'Habitat (CMH; Crédit Mutuel Group) – as well as Société de Gestion des Financements et de la Garantie de l'Accession Sociale à la Propriété (SGFGAS) to obtain detailed information about the amount of State-guaranteed loans.
- ❑ As happens every year, several banks were able to send additional or corrected information for previous years along with their responses to the 2016 survey, which has helped to make a number of indicators more representative and to correct misreported information. In addition, the methods applied to calculate the gross non-performing loans ratio, the coverage ratio and the cost of risk were amended to expand the number of institutions included in the overall data series. As a result, some figures in the present study may differ from those published in the previous report.

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<sup>1</sup> BNP Paribas, BNP Paribas Personal Finance, Société Générale, Crédit du Nord, the Caisses Régionales de Crédit Agricole, LCL, the Caisses d'Épargne network, the Banques Populaires network, Crédit Foncier De France, Crédit Mutuel, CIC, Crédit Immobilier de France, HSBC France and La Banque Postale.

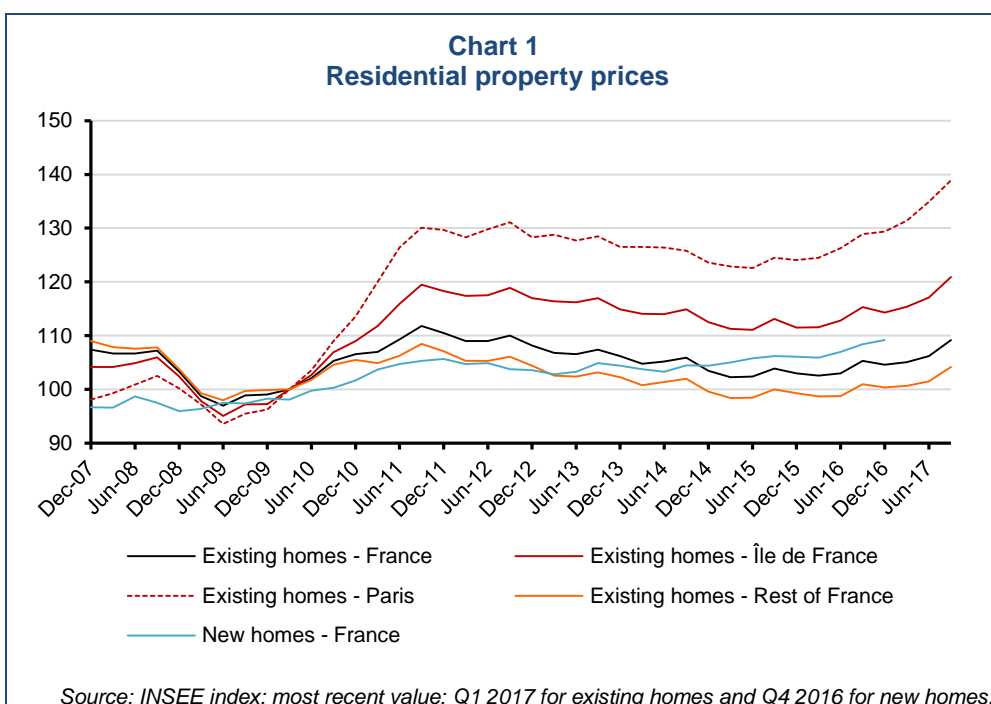
<sup>2</sup> See <http://www.eba.europa.eu/risk-analysis-and-data/eu-wide-transparency-exercise/2016/results> for the 2016 results.

## 1. Main features of the housing loan market

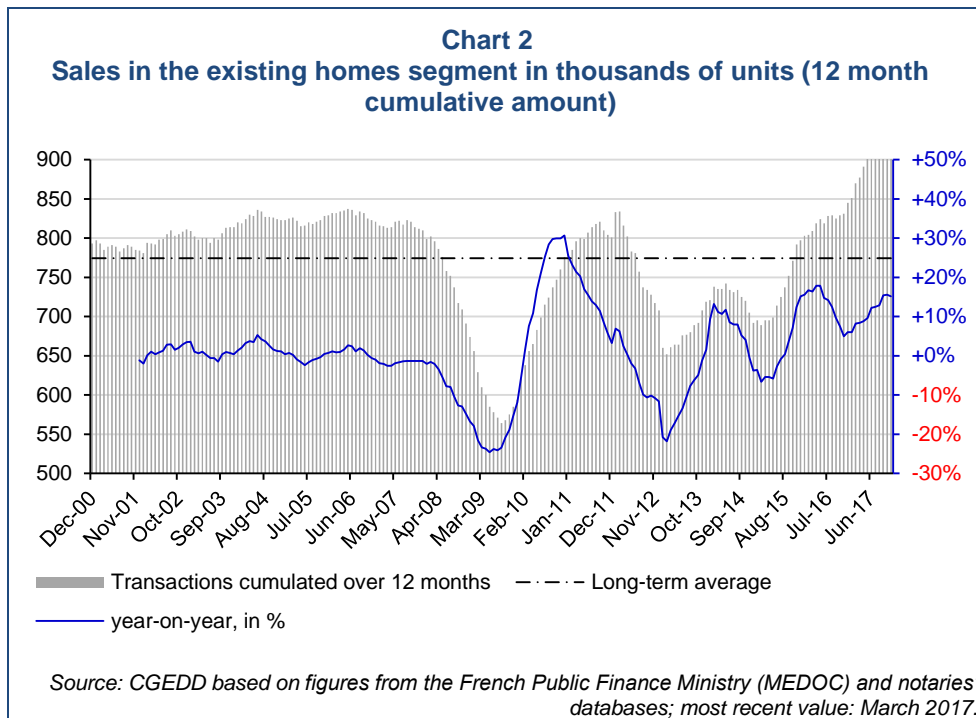
### 1.1. Prices and sales were up

Activity in the residential real estate market, encouraged by interest rates that fell to a record low in December (See [Chart 3](#) below), was extremely buoyant in 2016, both in terms of price and sales volumes.

The rise in new housing prices continued during the year (up 2.9% in 2016) building on the upturn that began in 2014, while the existing homes segment broke with the trend decline in prices observed since the peak in September 2011. Nevertheless, trends differ from region to region. While the prices of existing homes climbed by 1.7% on average for France as a whole in 2016, the increase in Paris and the Île de France region amounted to 4.4% and 3.1%, respectively, but only reached 1.3% in the rest of France. In Paris, prices exceeded their September 2012 high ([Chart 1](#)).

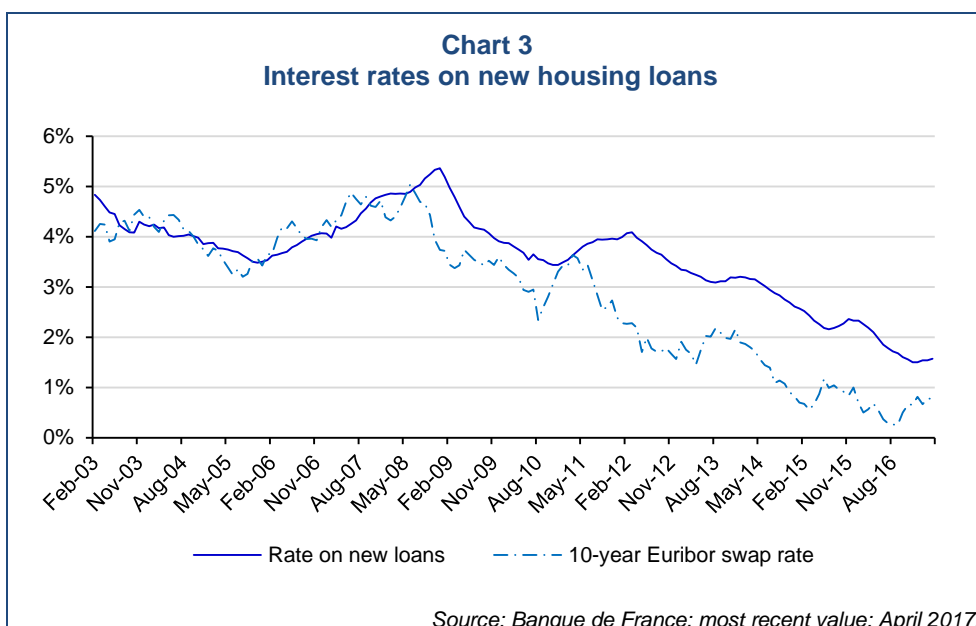


Over the same period, there was a 6% year-on-year increase in the number of transactions, with 845,000 sales at end-2016 – higher than the levels observed in the mid-2000s. The pick-up in activity observed in 2015 thus continued, with year-on-year volumes in the first quarter of 2017 reaching levels that had not been seen since the end of 2000 ([Chart 2](#)).

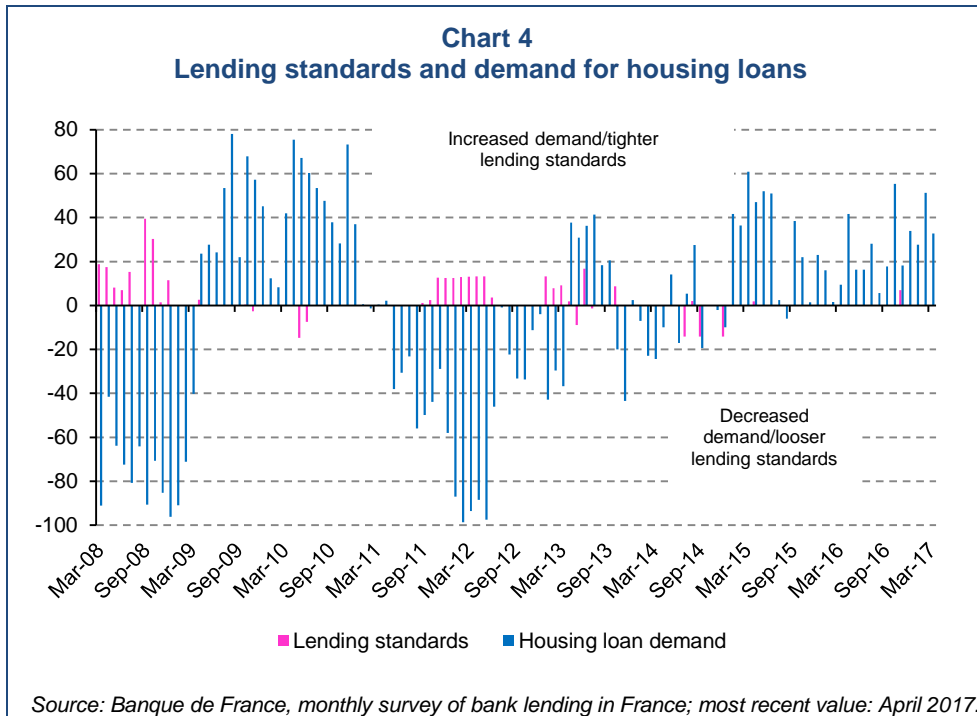


## 1.2. Historically low interest rates fuelled an acceleration in new lending and outstanding loans

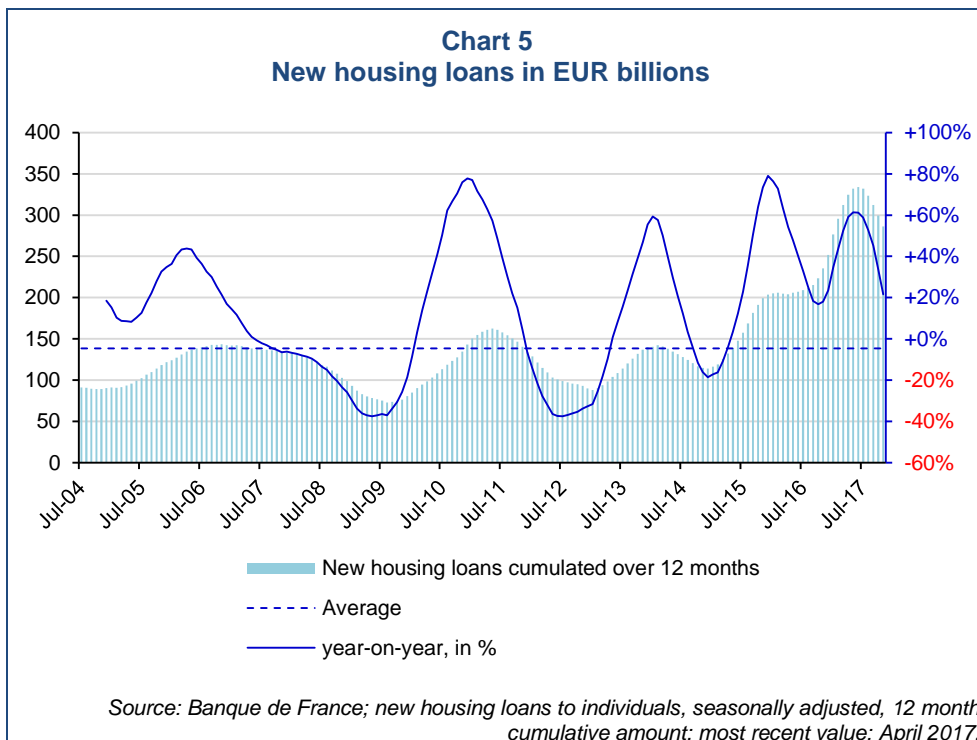
Following a modest upturn during the second half of 2015, interest rates on housing loans fell again in 2016 in line with the long-term rate to reach an all-time low of 1.50% in December. The trend has since reversed very slightly, with a rise of 7 bps during the first four months of 2017 (Chart 3).



The low interest rates and the expectations that they would rise in the future fuelled demand for housing loans, which remained relatively sustained, while banks' lending standards stayed largely unchanged (Chart 4).



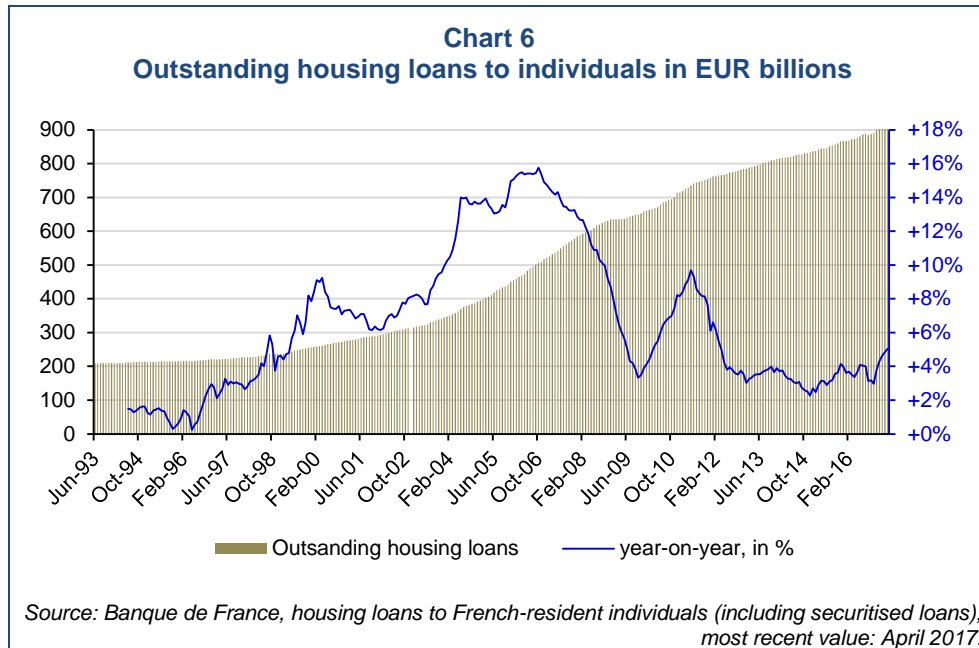
Against this backdrop, trends in new housing loans varied during 2016 (Chart 5), remaining relatively stable during the first half with a high volume of new lending over a cumulative twelve-month period of more than EUR 200 billion but accelerating sharply in August to EUR 321.2 billion at end-April 2017. This corresponded to an annual increase of almost 60%. However, new lending slowed month-on-month at the beginning of 2017, settling back to EUR 27.1 billion in April following its January peak of EUR 36.6 billion.



This sharp rise in new lending since the second half of 2016 affected trends in outstanding housing loans: during 2016, outstanding loans recorded similar growth to 2015 (up 3.8% compared to 4% in the previous year), amounting to EUR 899.4 billion at the end of December. Growth then picked up significantly at the beginning of 2017 with an increase of 5% over a cumulative twelve-month period at the end of April 2017 (Chart 6). Nevertheless, this increase still remained relatively modest compared to the levels seen in 2010-11, for example (a high of



almost 10% in mid-2011), or at the end of the real estate crisis in the mid-1990s (almost 16% at fourth-quarter 2006).



### 1.3. Loan transfers returned to their highest levels

#### Note

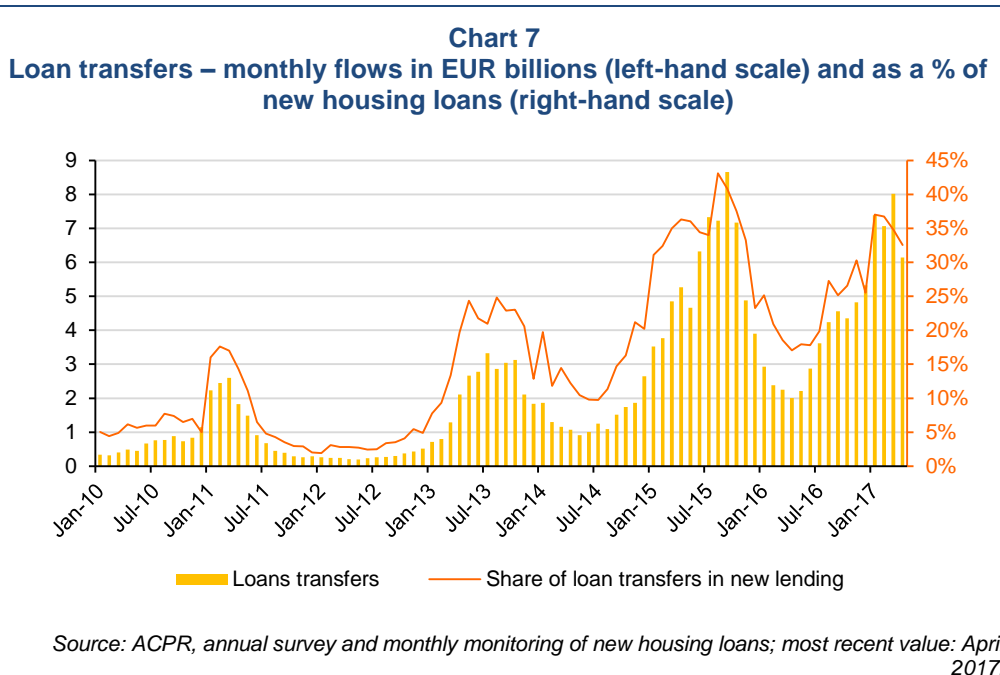
**Loan transfer:** a transaction whereby a bank buys a borrower's loan from another bank. As loan transfers are followed by the provision of a new loan to the borrower (by the bank purchasing the original loan), they are included under gross new housing loans measured by the ACPR. They do not, however, affect the net balance of new housing loans<sup>3</sup> as the new loan is immediately offset by the repayment of the borrower's original loan to the other bank.

**Renegotiation:** a transaction whereby the borrower obtains new terms on an original loan, notably a new rate of interest. Renegotiations do not result in the provision of a new loan and therefore do not have to be reported by banks as part of the ACPR's monthly monitoring of new housing loans. They are however included in new housing loans measured by the Banque de France as they lead to the creation of a new agreement.

After returning to relatively modest levels in mid-2016, loan transfers leapt to reach volumes at the beginning of 2017 that were comparable to those seen in 2015, accounting for more than 35% of new lending and a high of EUR 8 billion in March 2017 (Chart 7). Loan transfers then slowed sharply in April 2017 to a little over EUR 6 billion.

Furthermore, according to Banque de France statistics, loan transfers and renegotiations accounted for 45.2% of new lending in 2016. This share increased to 52.1% of new lending approved between May 2016 and April 2017. However, as a monthly proportion of new lending, loan transfers and renegotiations peaked in January 2017 at 61.6% to fall back to 49.6% in April 2017.

<sup>3</sup> Net new lending for a given period is defined as new loan contracts less contractual or early repayments on existing loans.

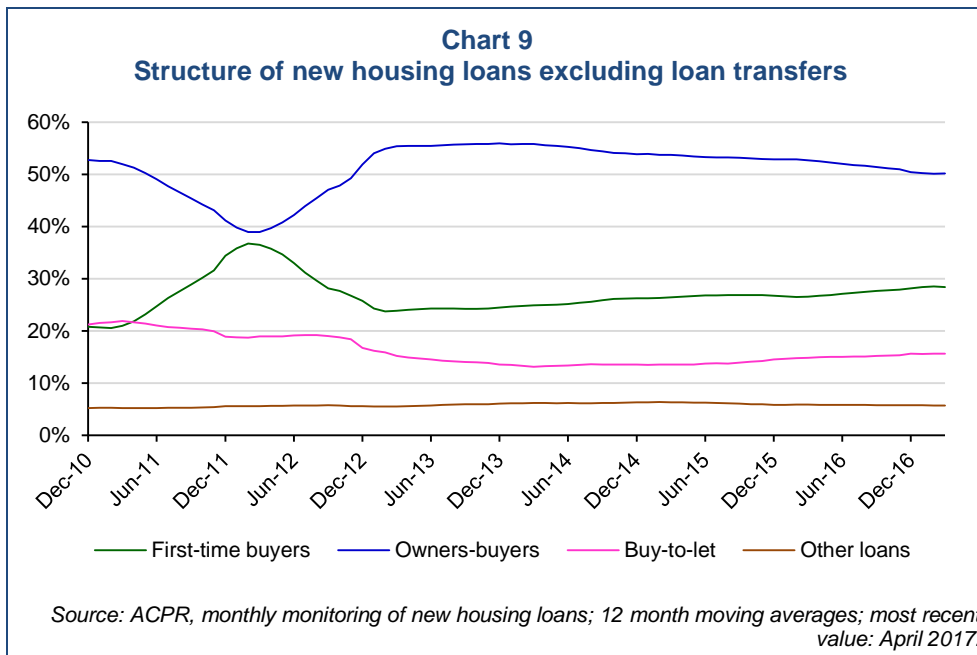


#### 1.4. New lending excluding loan transfers also reached high levels

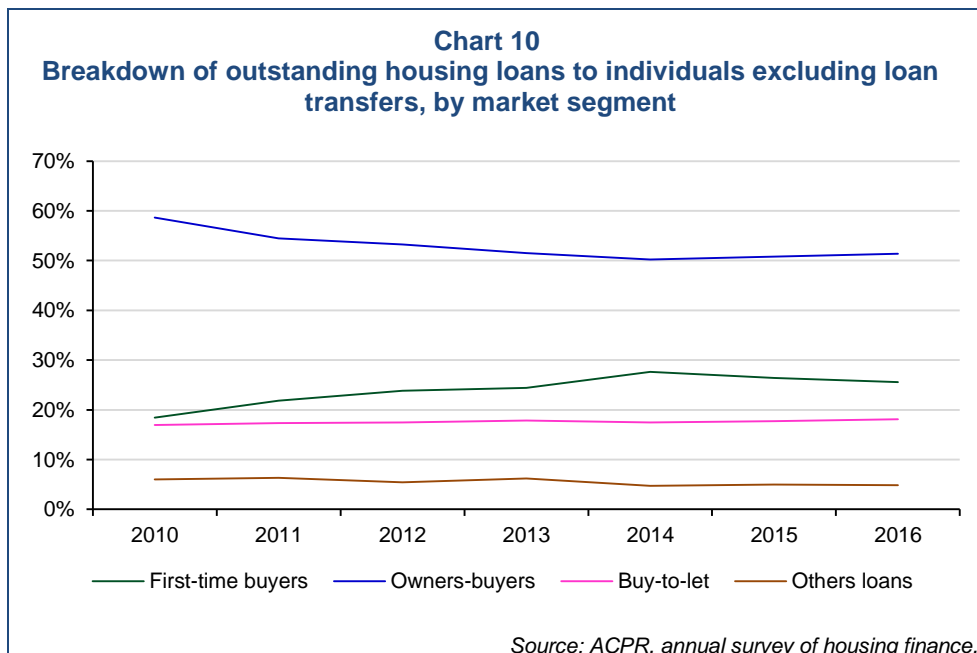
New housing loans excluding loan transfers also recorded solid growth, which has accelerated since the end of 2016. With growth of almost 20% over a cumulative twelve-month period in April 2017, new lending excluding transfers registered a cumulative growth rate that almost matched that observed at the end of 2015. As a result, the most recent monthly statistics (April 2017) showed that new lending excluding transfers amounted to EUR 154 billion, similar to mid-2011 values (Chart 8).



Even though owner-buyers account for the majority of the market (50.3% in April 2017), their share has fallen steadily since end-2013, losing 5.6 pp (Chart 9). This decline was largely taken up by first-time buyers, whose share grew by 3.8 pp over the same period to a little less than 30% of new lending excluding loan transfers in April 2017, and to a lesser extent, by the buy-to-let segment (up 2.2 pp and stabilising at around 15.6% since the end of 2016).

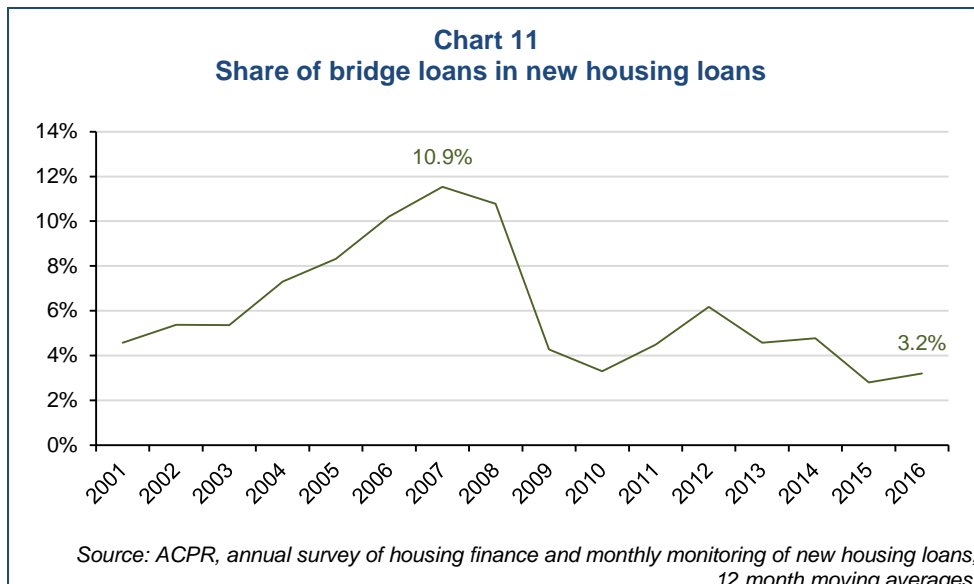


The structure of outstanding loans excluding loan transfers exhibited changes that differed little from those of new lending: owner-buyers continued to account for the majority and increased their share, for the second consecutive year, to 51.4% at the end of 2016. Conversely, the share of first-time buyers shrank compared with 2014 and 2015 to 25.6%. The buy-to-let segment gradually increased its share while other loans remained relatively stable (Chart 10).



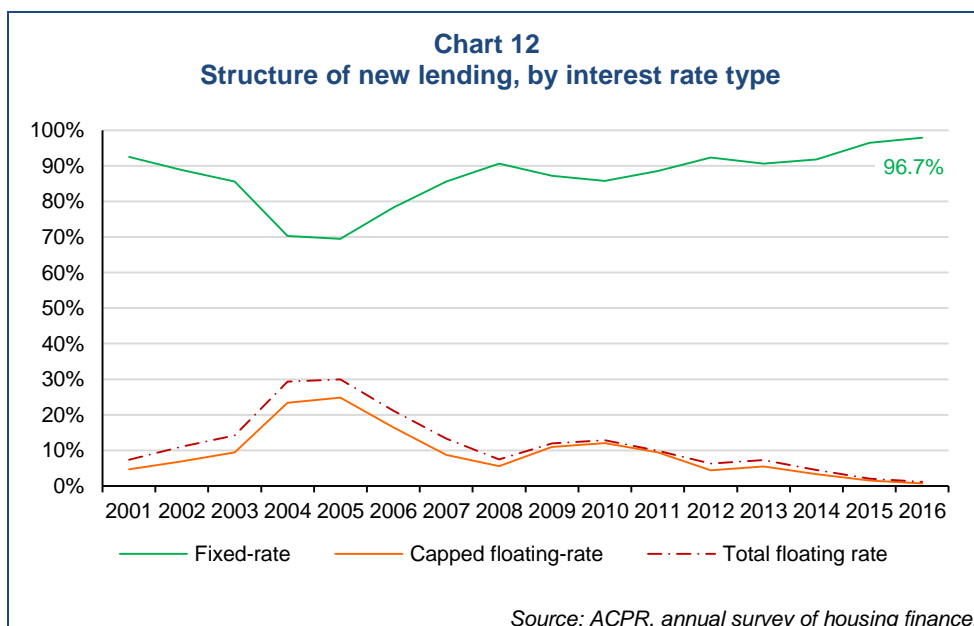
### 1.5. Bridge loans remained muted

Despite a small upturn in 2016 in the wake of the rebound in activity on the residential real estate market (see above), the share of bridge loans in new lending remained minimal at over three times below the level observed in 2007 (Chart 11).

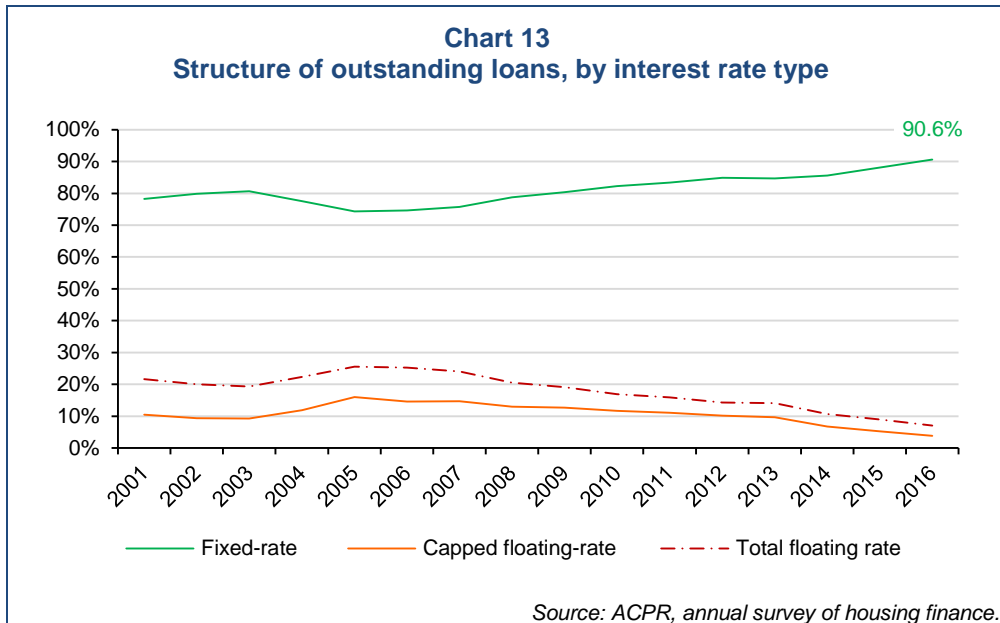


### 1.6. The share of fixed rate loans continued to expand

The share of floating rate loans in new lending continued to plunge, accounting for a mere fraction of approved loans: since 2005, the share has plummeted from 30% to 1.2% (Chart 12). As in previous years, capped-rate loans (floating rate products that are capped to protect the borrower from significant interest rate hikes) continue to predominate with 64.8% of the floating-rate segment. Given that the share of other loans also recorded a further decrease of 0.5 pp, fixed rate loans again reinforced their ascendancy with a 97.9% share of new housing loans.

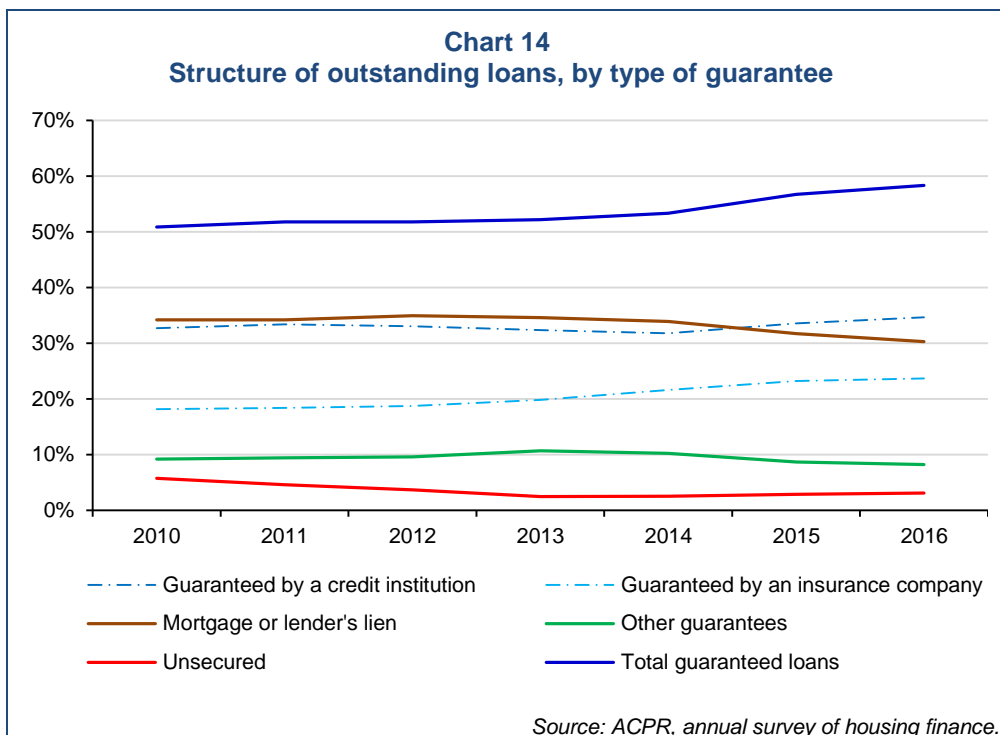


Changes in the structure of outstanding loans by interest rate type are consistent with changes in new lending (Chart 13): fixed rate loans account for the vast majority (90.7% in 2016 compared with 88.1% in 2015) while floating rate loans fell back 2 pp to 7% of outstanding loans and other loans also contracted slightly by 0.6 pp to 2.3%. Other loans essentially refer to bullet loans or products that bear interest at a fixed rate for a given period before converting to a floating rate.



### 1.7. Guaranteed loans increased again

The majority of housing loans were already secured with a guarantee in 2015, but their share increased further in 2016 by 1.6 pp to 58.3%. For the second year running, credit institutions proved to be the main source of a guarantee, up 1.1 pp to 34.6%, while the growth in guarantees provided by insurance undertakings (up 0.5 pp to 23.7%), although not nearly as common, has steadily continued since 2010, despite a slight slowdown in pace. However, the share of loans guaranteed by a mortgage or lender's lien, and other guarantees, again fell by 1.4 pp and 0.5 pp to 30.3% and 8.2%, respectively. There was a small increase in unsecured loans for the third year running (up 0.3 pp to 3.1%), but they still remain below their 2010 peak (Chart 14).



Guarantees provided by credit institutions (or more precisely, a financing company) are mainly issued by *Crédit Logement*, which provides guarantees – to greater and lesser degrees – for all of the banks in the sample, and *CM-CIC Caution Habitat*, which covers the *Crédit Mutuel* Group. Guarantors operating with

insurance company status are primarily subsidiaries of mutual groups. CEGC and CAMCA essentially provide guarantees for BPCE Group and Crédit Agricole Group, respectively. Other guarantees mainly include FGAS guarantees (6.7%) and a broad range of other methods including personal guarantees and pledging life insurance contracts.

**Box 1**  
**Setting a minimum resilience level for housing loan guarantors**

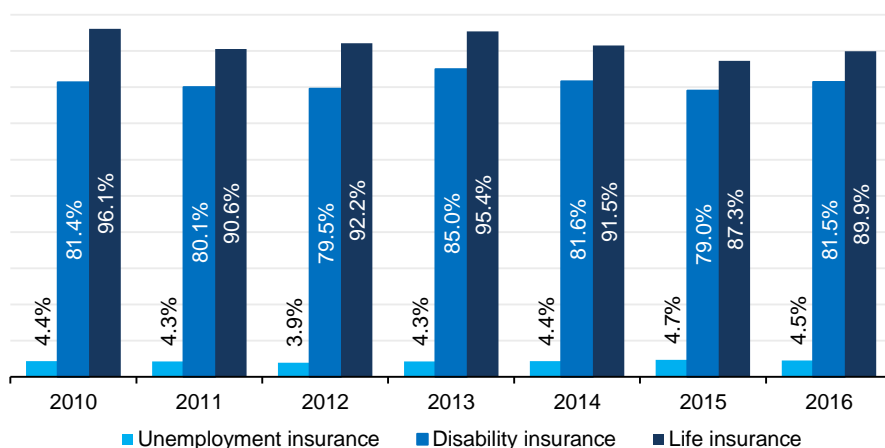
As housing loans can be guaranteed by financing companies as well as insurance undertakings, which are not subject to the same prudential oversight, the ACPR College decided to implement a common requirement for all guarantor bodies in order to avoid any supervisory arbitrage and to ensure that all market participants have the resources necessary to cover their risks.

The requirement involves setting a minimum resilience level, defined as the ratio between (i) the items available to cover risk (equity, of which part of the guarantee funds, for financing companies, and equity, technical reserves and part of the risk margin for insurance undertakings) and (ii) the value of the guaranteed loans.

Drawing on the results of the stress tests performed by the EBA in 2016, which notably included an assessment of the resilience of France's three main housing loan guarantors in the face of a considerably weakened economic environment,<sup>4</sup> the minimum resilience level was set at 2% of the outstanding guaranteed loans, compared with an average cost of risk of 0.06% since 2006. This level, which will take effect as of 1 January 2018, is likely to change over time, particularly in the event of a deterioration in market conditions.

Furthermore, the vast majority of borrowers continue to ensure that they are insured against death (89.9%) or disability leading to inability to work (81.5%). However, insurance against job loss is rare and only taken out by 4.5% of borrowers; a share that has remained almost unchanged since 2010 (Chart 15).

**Chart 15**  
**Proportion of borrowers covered by an insurance policy**



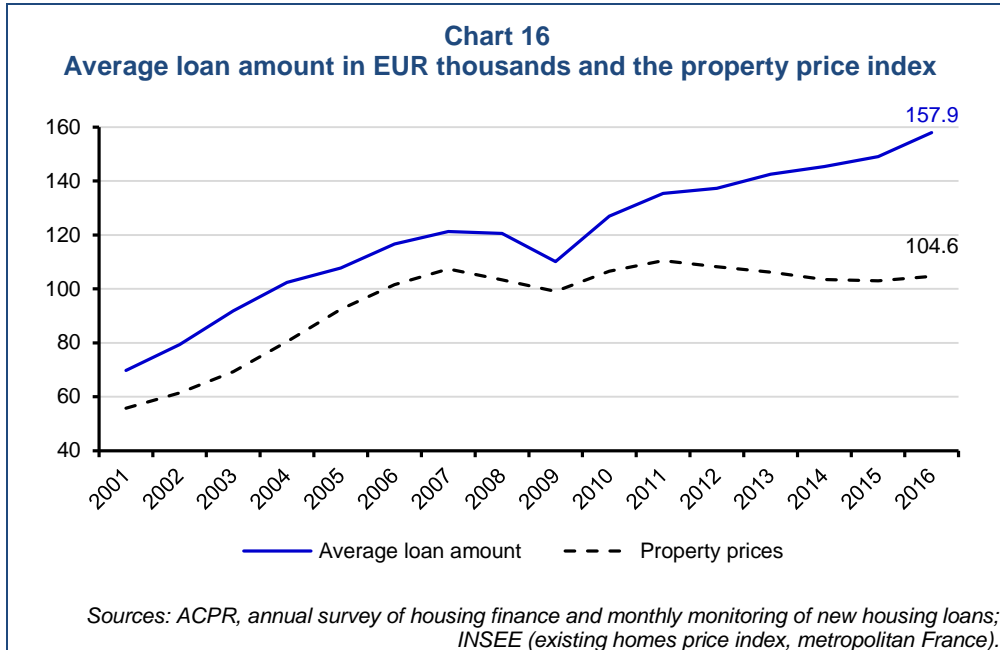
*Source: ACPR, annual survey of housing finance.*

<sup>4</sup> See *Analyses et Synthèses* No. 75.

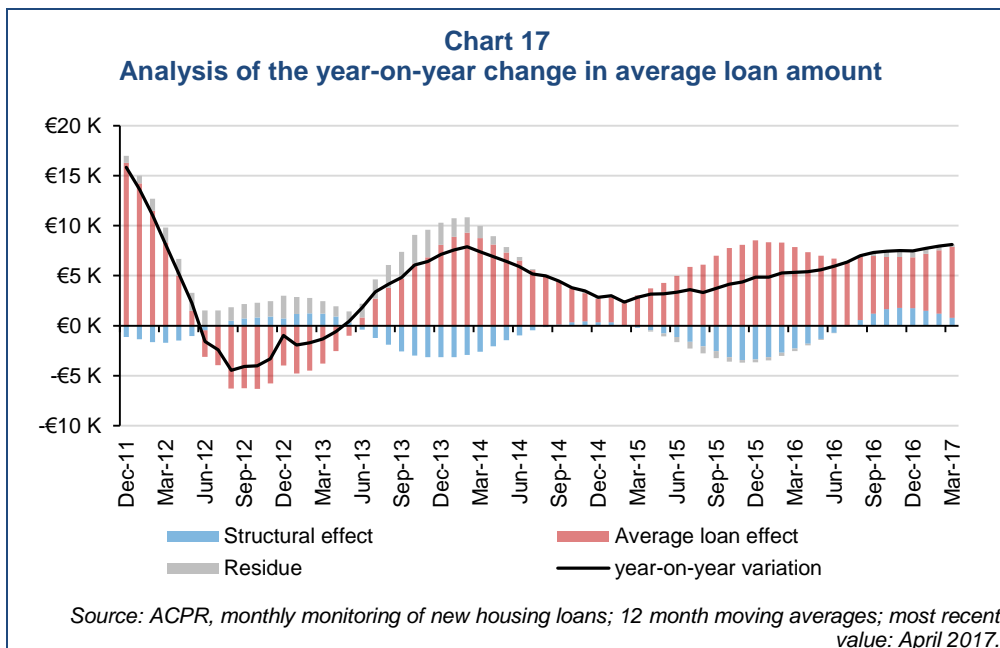
## 2. Borrower risk profile

### 2.1. The average loan amount increased sharply

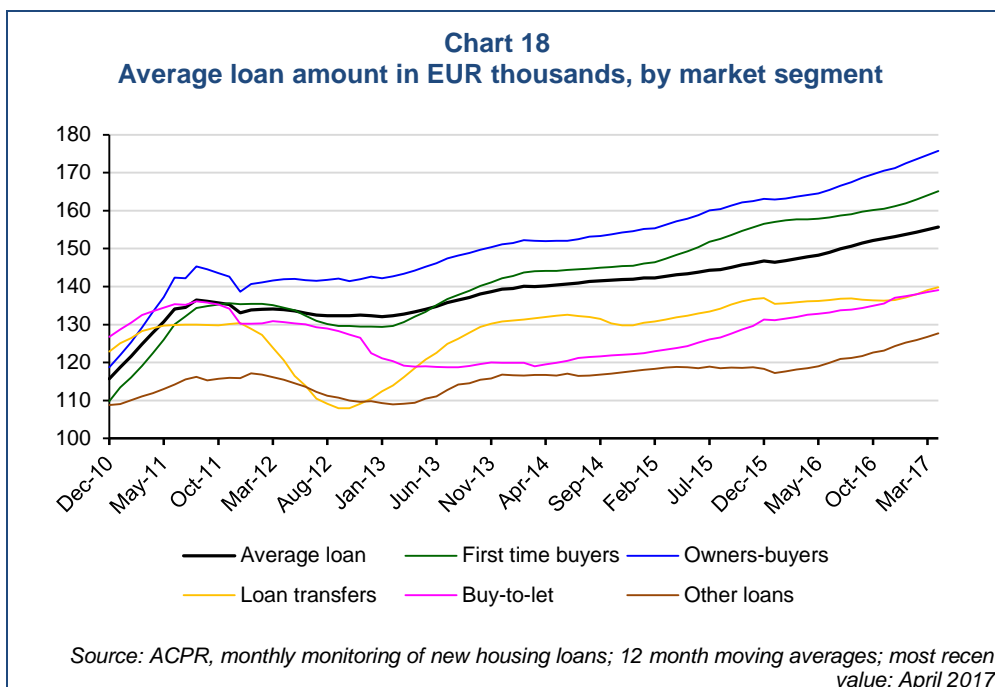
Thanks to the low interest rates that allow borrowers to take on greater debt without significantly impacting their debt service ratio (see below), the average loan amount continued to rise in 2016 to EUR 157,900, i.e. a 6% increase compared with only 2.5% in 2015 (Chart 16). In contrast to the 2011-15 period, this increase also reflects the sharp upturn in property prices observed since the end of 2015 (see above).



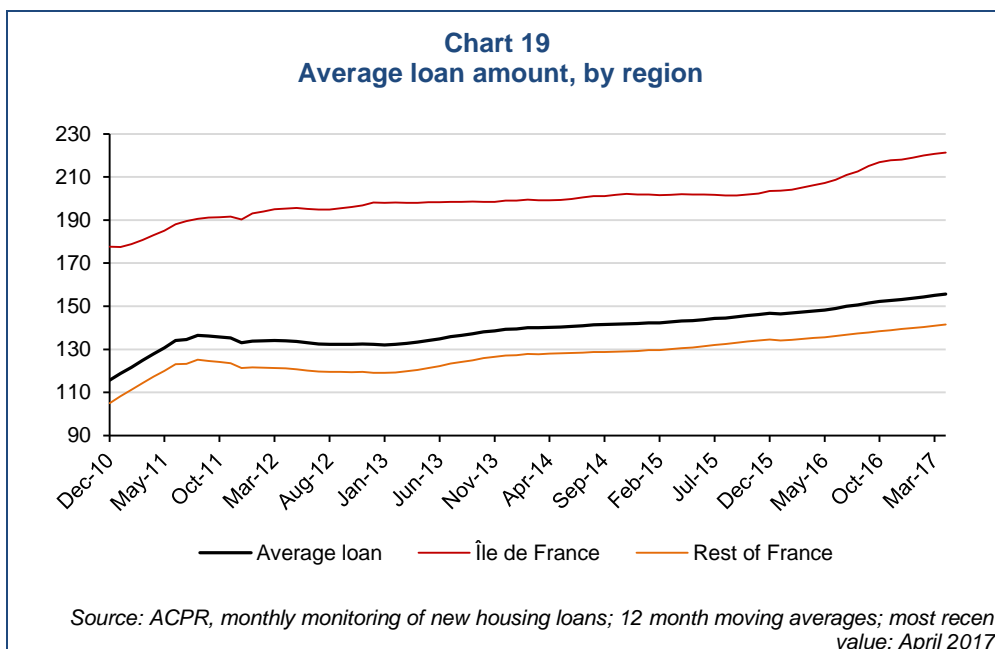
Detailed analysis reveals that the increase in the average loan amount can be observed across the various market segments (positive "average loan" effect), as the trend had been somewhat magnified by a structural effect (greater representation for segments with higher average loan amounts) since August 2016, although that effect has receded since December 2016 (Chart 17).



While there was an across-the-board increase on all segments, it was particularly noticeable in the case of other loans (up 7.7% to EUR 129,200 from April 2016 to April 2017) and owner-buyers (up 7.1% to EUR 176,300). Increases in the other segments were more contained, ranging from 2.8% for loan transfers to 4.7% for first-time buyers and 4.9% for buy-to-let (Chart 18).



Lastly, the increase in the average loan amount was far more pronounced in the Île de France region (up 7.3% over the previous 12 months to EUR 221,500) than in the rest of France (up 4.7% to EUR 142,400) – Chart 19.





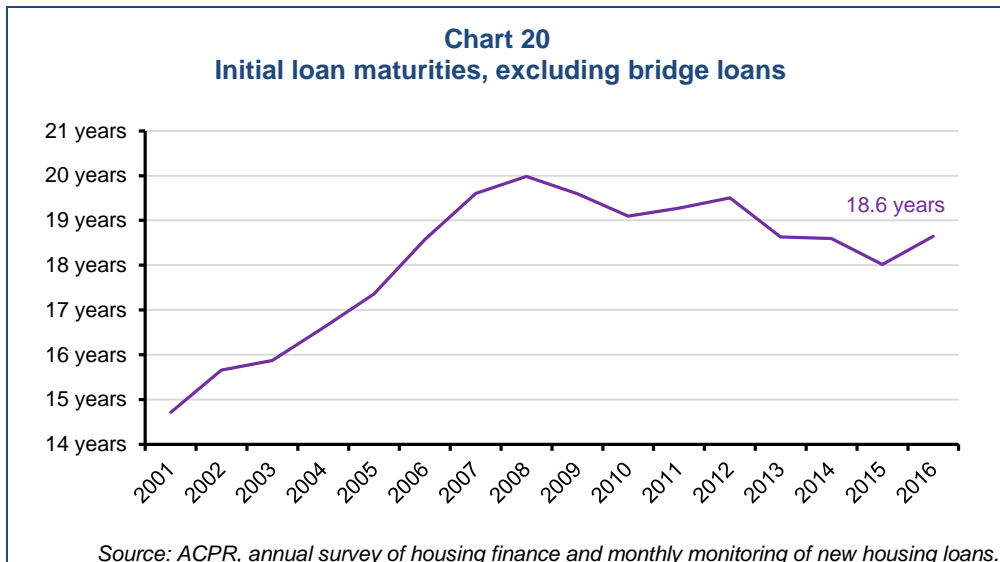
## 2.2. Initial loan maturity increased

### Note

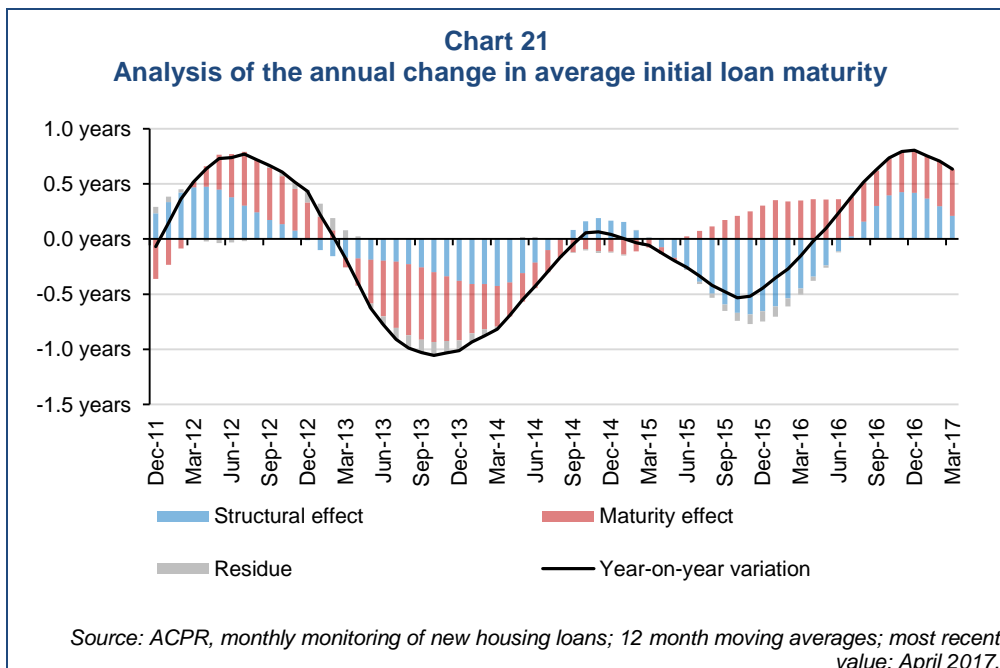
Initial maturity: for a given loan vintage, this is the average of all initial maturities as set up in the lending contract, weighted by the outstanding loan balance.

Residual maturity: remaining expected life of the loan until its expiry date, as set up in the lending contract.

After following a downward trend since 2012, initial loan maturity lengthened by more than seven months in 2016 to reach 18.6 years (compared with 18 years in 2015) and return to 2014 levels (Chart 20).

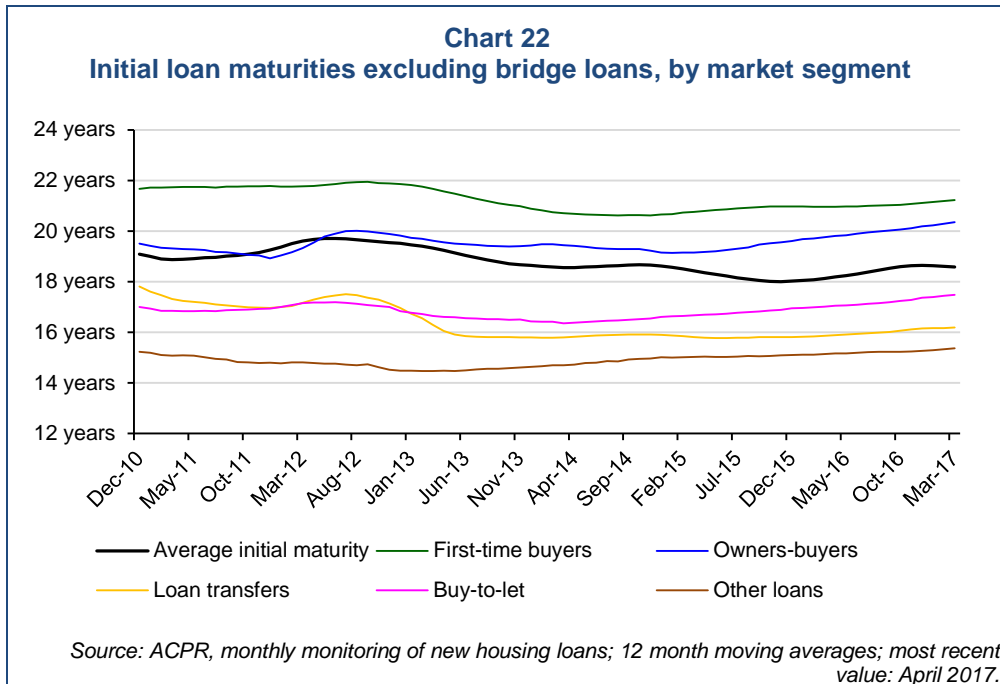


The longer initial loan maturity can be explained in almost equal measures by an increase in initial maturity across the different segments (a maturity effect) and greater representation for segments with longer initial maturities (a structural effect). Since the end of 2016, the increase in average initial maturities has dropped off as the influence of the structural effect has declined, but the maturity effect has remained virtually unchanged since the end of 2015 (Chart 21).



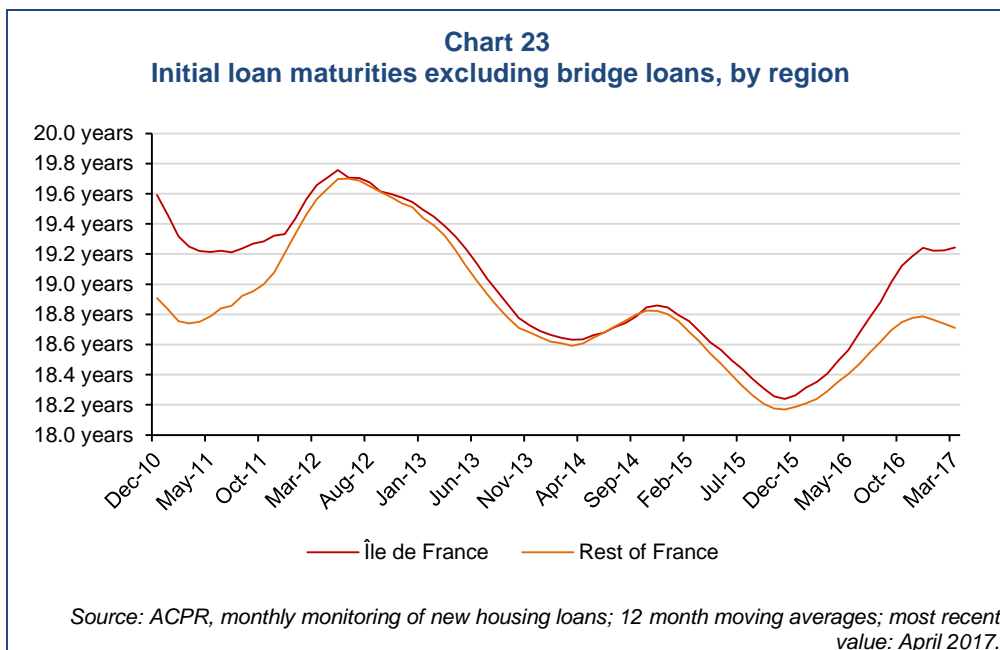
The increase in initial loan maturity is particularly substantial for the owner-buyer and buy-to-let segments (up 6.7 months and 5.8 months, respectively) – Chart 22.

However, the trend has declined slightly since the end of 2016 (down 8 bps over the first four months of 2017).



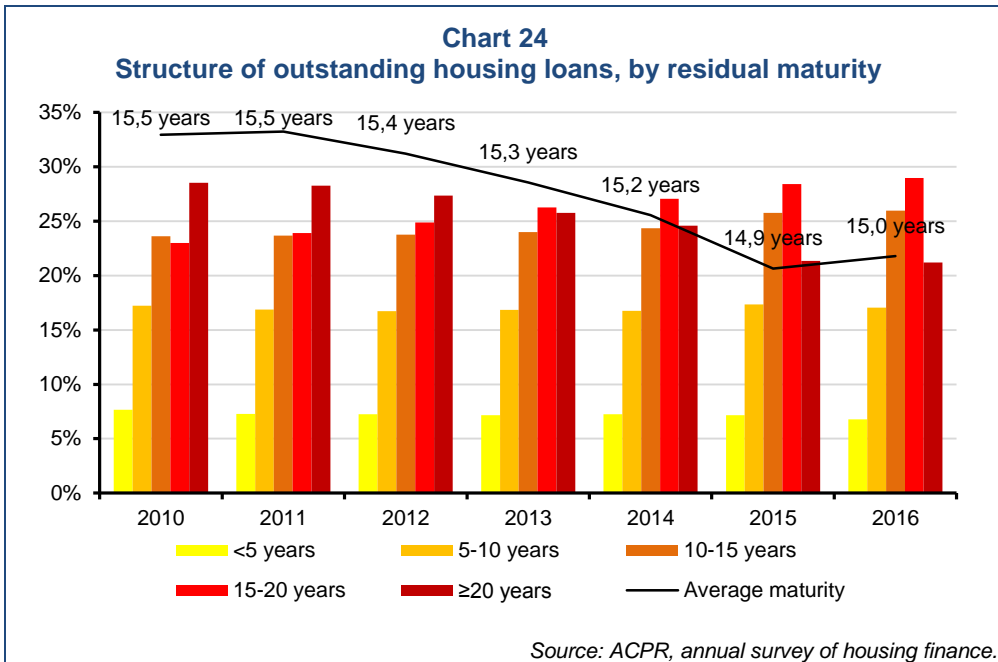
Several banks stated that they no longer or extremely rarely offered loans with maturities of over 25 years. For those banks that continue to offer these products, they are granted to young (less than 40 years of age) first-time buyers, who are mainly manual or clerical workers unable to make a significant down payment, and who have access to a subsidised *prêt à l'Accession Sociale* (PAS) or interest-free (PTZ) loan.

Trends in initial loan maturities in the Île de France region and the rest of France were very similar until 2015. However, in 2016, the average loan amount in the Île de France region rose more rapidly than in the rest of France, and the gap has continued to grow since the end of 2016 (Chart 23).

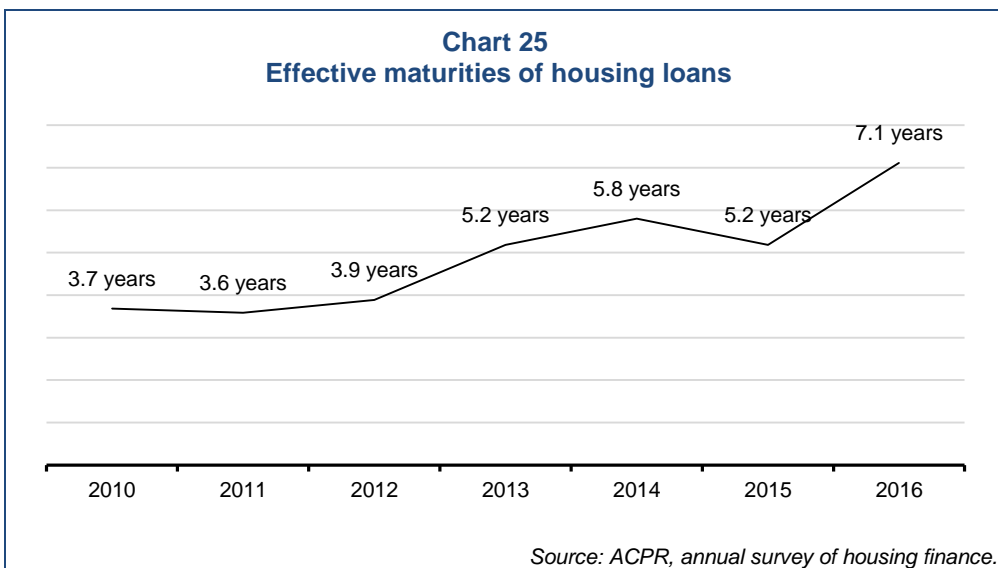


Lastly, residual loan maturities lengthened slightly to 15 years, breaking the trend decline that began in 2012 (Chart 24). The breakdown of outstanding loans by

residual maturity changed little, with only the "10-15 year" and "15-20 year" categories increasing slightly by 0.2 pp and 0.6 pp, respectively.



Furthermore, effective loan maturities, measured on the basis of ACPR bank survey responses, recorded a marked increase in 2016 to 7.1 years, continuing an overall trend increase that began in 2011 (Chart 25).

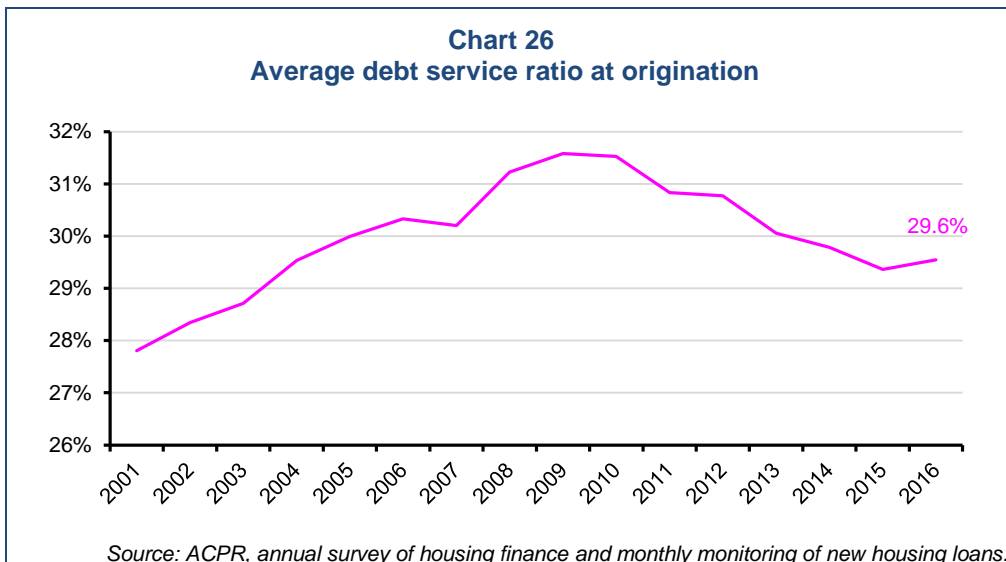


### 2.3. The debt service ratio increased

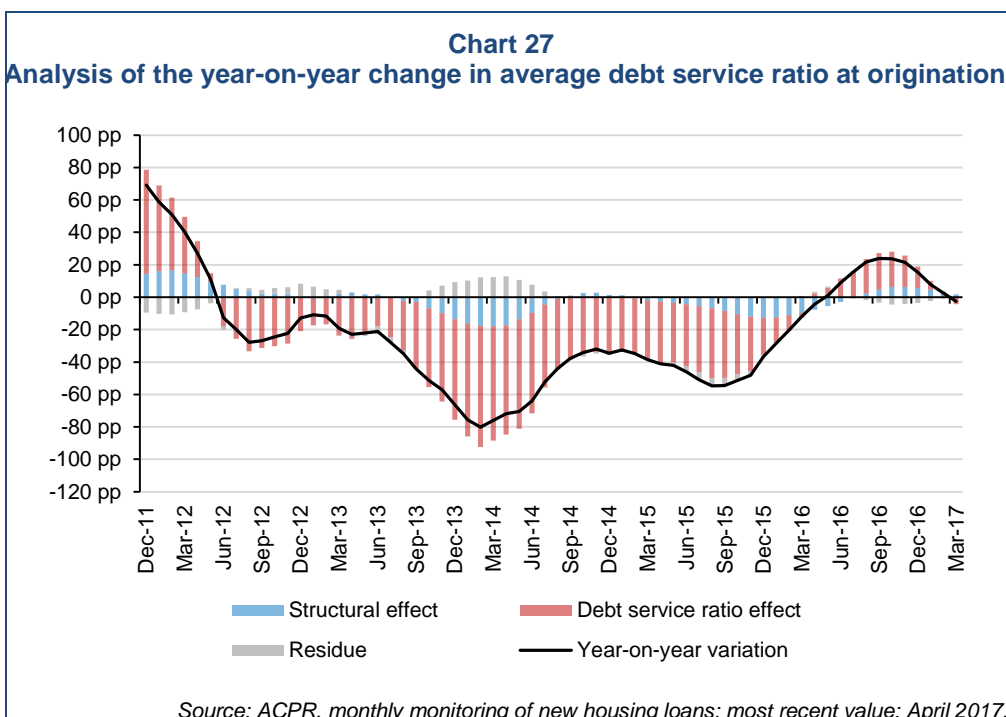
**Note**

The debt service ratio at origination is calculated by dividing all of a borrower's regular outgoings (including all loan repayments) by the borrower's gross income.

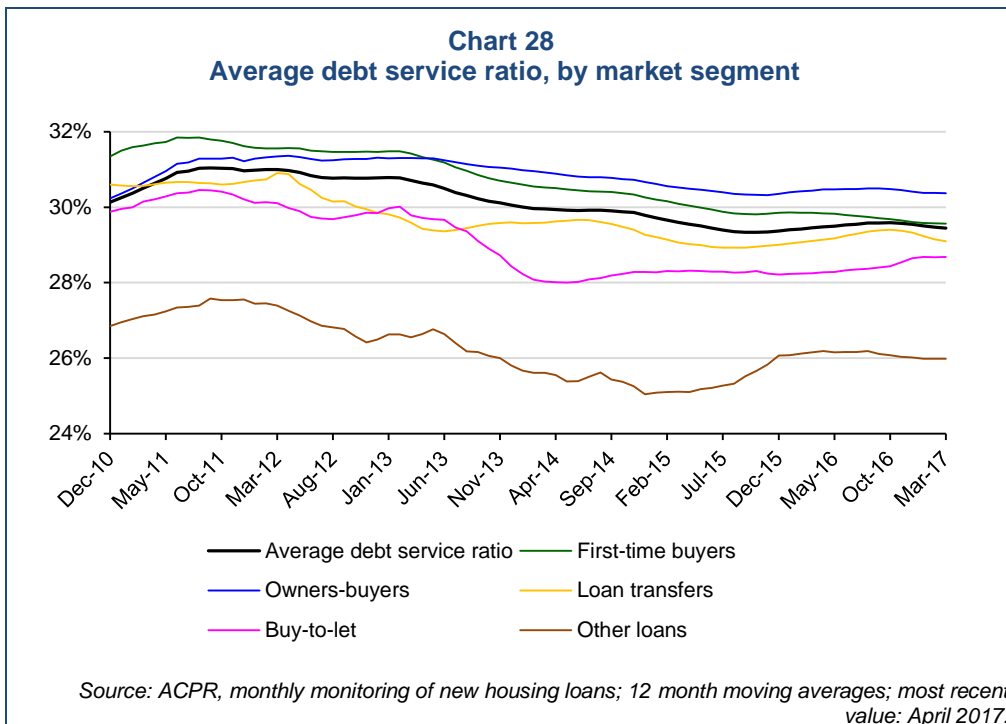
The average debt service ratio at origination – like the average initial maturity of new loans – recorded a relatively significant increase in 2016 (up 18 bps to 29.6%), breaking with the almost constant downward trend since 2010 (Chart 26). Nevertheless, it stayed below its 2014 level of 29.8% and its historical high of 31.6% in 2009.



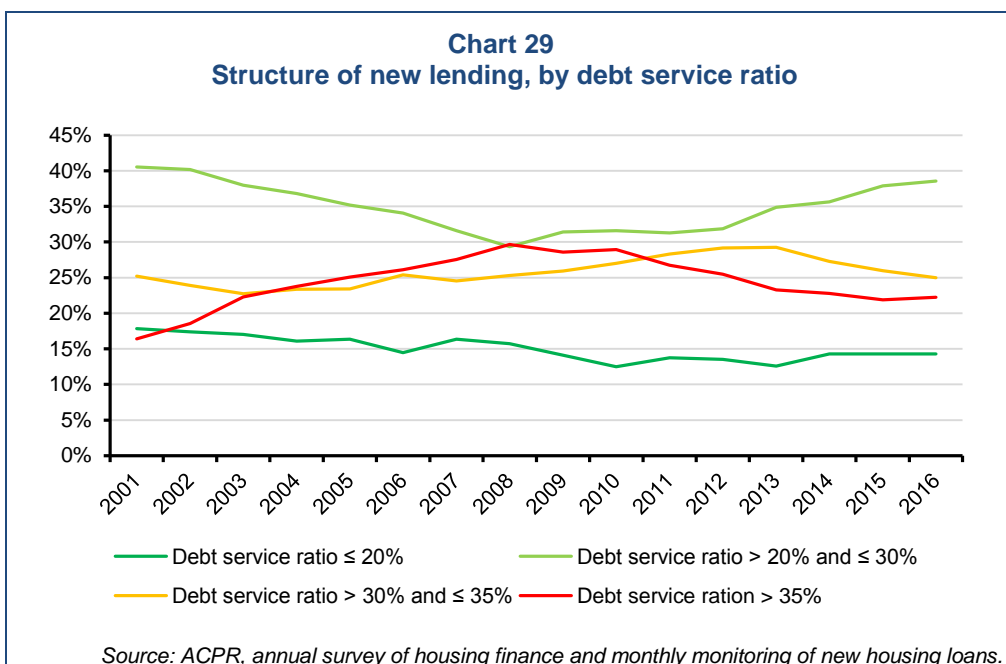
However, the increase in the average debt service ratio at origination is a recent phenomenon that began in mid-2016. It was seen across the majority of segments, as changes in the structure of new lending had only a very modest impact on the average ratio. This increase was very quickly interrupted though, and the average debt service ratio at origination has even contracted slightly year-on-year since March 2017 (Chart 27).



Thus, with the exception of buy-to-let, whose average debt service ratio rose by 42 bps from April 2016 to April 2017, all segments – particularly first-time buyers (down 26 bps) and other loans (down 20 bps) – recorded decreases in their average debt service ratios (Chart 28).

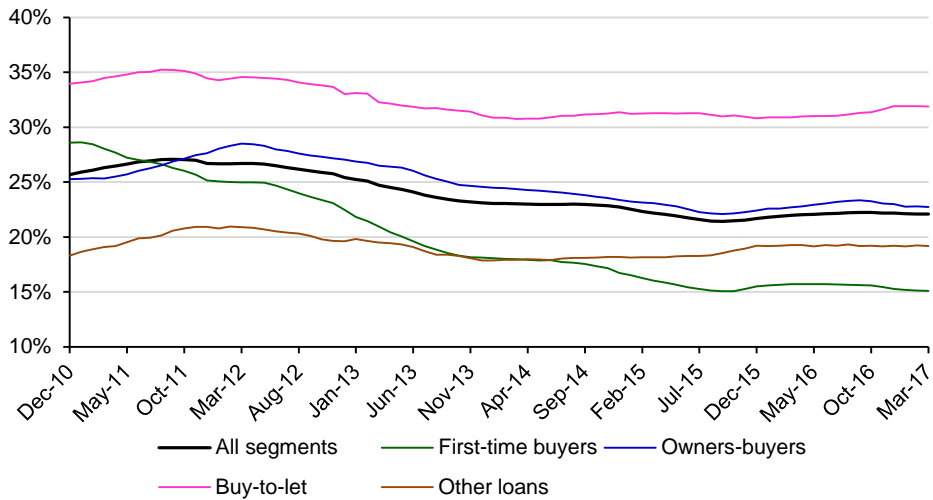


The structure of new lending by debt service ratio was relatively similar in 2016 to 2015: borrowers with a debt service ratio of between 20% and 30% continued to account for the most sizeable share, and it increased again to 38.5% from 37.9% in 2015. The share of borrowers with a debt service ratio of between 30% and 35% decreased further (down 1 pp to 25%). Lastly, the proportion of borrowers in the highest debt ratio category recorded a minor 0.3 pp increase on 2015 to 22.2%, while the lowest category remained unchanged at 14.3% (Chart 29).



The buy-to-let segment continued to have by far the highest proportion of borrowers with a debt service ratio of over 35%, and recorded a relatively rapid surge during the second half of 2016 (up 0.9 pp) before stabilising at the beginning of 2017 at 31.9%. By contrast, first-time buyers continued to be the least represented segment in the category, while the proportion of owner-buyers declined after the last quarter of 2016 (Chart 30).

**Chart 30**  
**Share of loans with a debt service ratio of over 35%, by market segment**

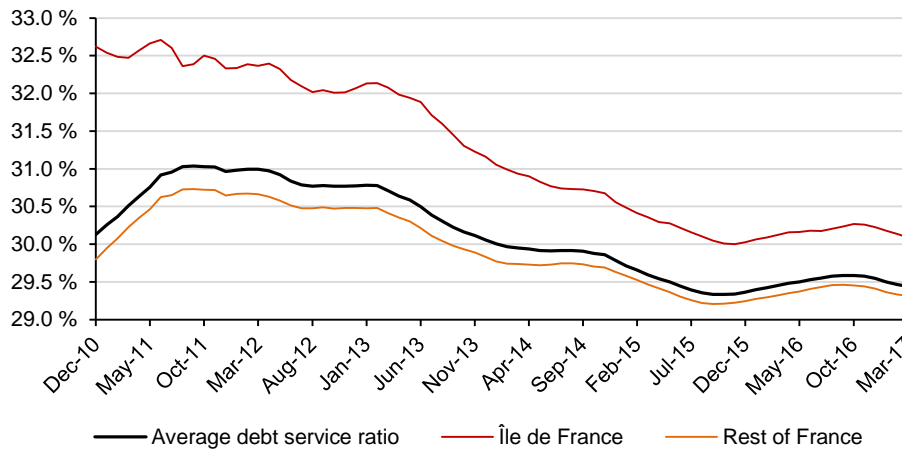


Source: ACPR, monthly monitoring of new housing loans; 12 month moving averages; most recent value: April 2017.

According to banks, the majority of loans with a debt service ratio of over 35% are extended to high net-worth customers investing in buy-to-let transactions.

Lastly, changes in the average debt service ratio followed similar trends in the Île de France region and the rest of France, although the recent decline appears to have started a little earlier in Île de France (Chart 31).

**Chart 31**  
**Average debt service ratio, by region**



Source: ACPR, monthly monitoring of new housing loans; 12 month moving averages; most recent value: April 2017.

## 2.4. Average income at origination declined

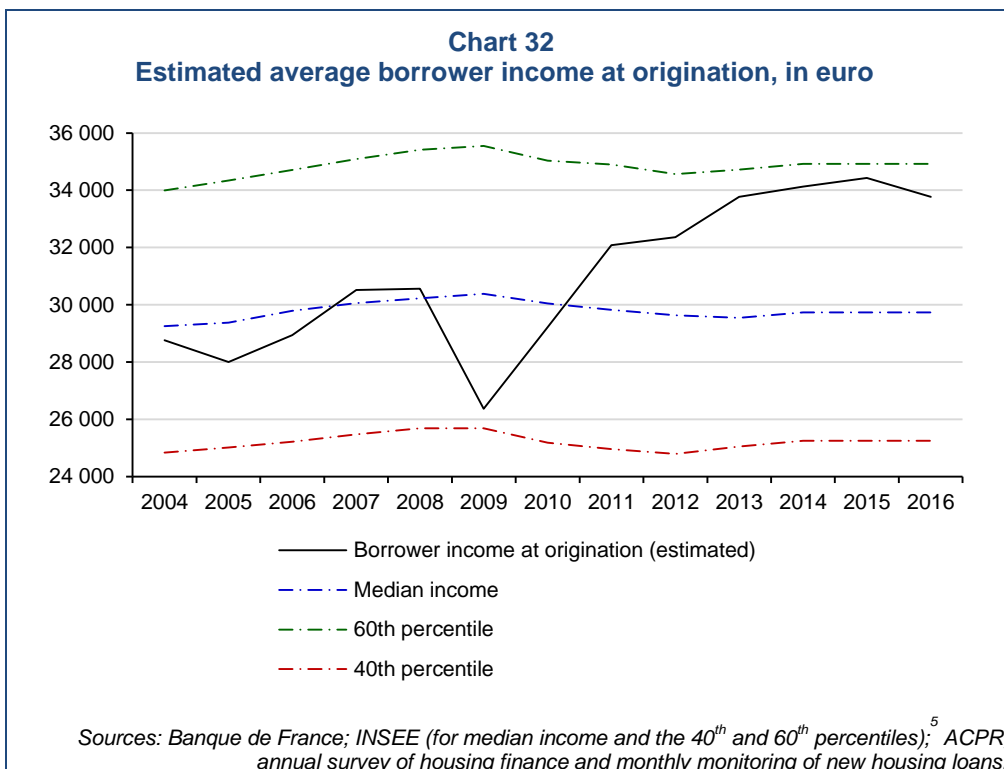
### Note

Average borrower income at origination is estimated using the following proxy method:

- First, an estimate is made of the total repayment due in a given year or month based on an average-sized loan with an average initial maturity and an average rate of interest; in 2016, based on a loan of EUR 157,915 with an initial maturity of 18.6 years and a (fixed) interest rate of 1.8%, the total repayment due over the year is EUR 10,015;
- Second, using this repayment amount and the average debt service ratio, it is then possible to calculate average borrower income at loan origination; in 2016, based on an average debt service ratio of 29.6%, average income was EUR 33,895.

This calculation can somewhat understate the income of borrowers at origination, in that the denominator (the average debt service ratio) takes account of all the debts that a borrower must repay whereas the numerator (the repayment amount) only takes account of the real estate debt. Nevertheless, on an aggregate basis, housing loans to individuals granted in France represented the vast majority of outstanding loans to individuals at the end of 2016 (see below).

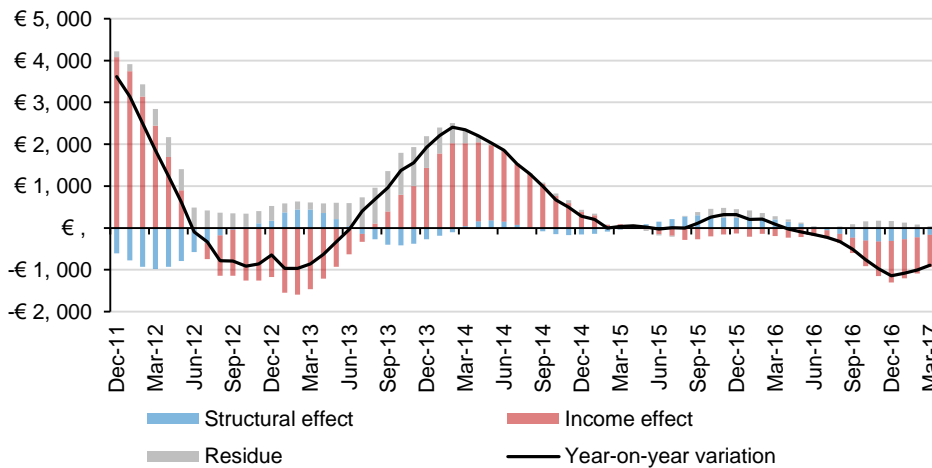
For the first time since 2010, estimated average borrower income at origination shrank in 2016 (down 1.5% to EUR 33,895) – [Chart 32](#).



This decrease mainly stems from a general decline in income observed across the majority of the market segments, while changes in the structure of new lending accentuated the trend somewhat during the second half of the year ([Chart 33](#)).

<sup>5</sup> Most recent available data: 2014.

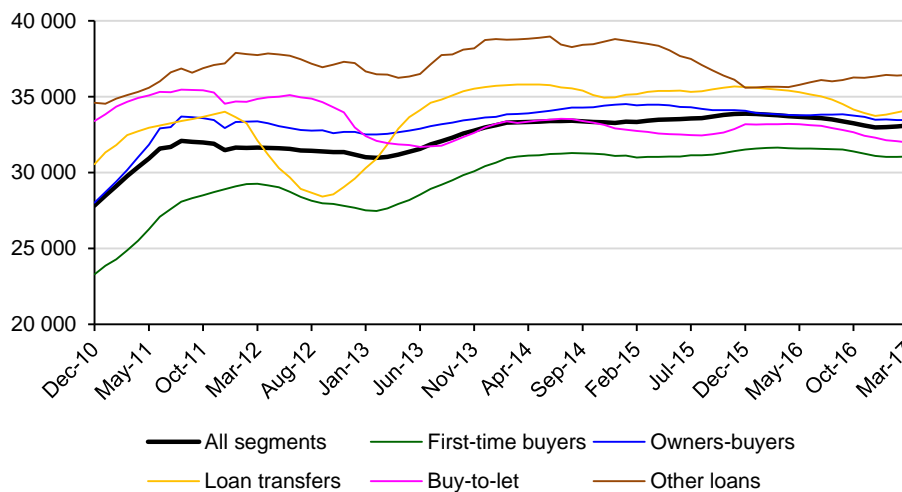
**Chart 33**  
**Analysis of the year-on-year change in average borrower income at origination**



Source: ACPR, monthly monitoring of new housing loans; 12 month moving averages; most recent value: April 2017.

Indeed, with the exception of the other loans segment, there was an across-the-board decline in average borrower income in 2016, which was particularly noticeable in the loan transfer and buy-to-let segments (down 5.4% and 2.7%, respectively). The trend decrease in the buy-to-let segment accelerated at the beginning of 2017, recording a 3.9% drop between April 2016 and April 2017, whereas the average income for the other segments appears to have stabilised, and even bounced back in the case of loan transfers (Chart 34).

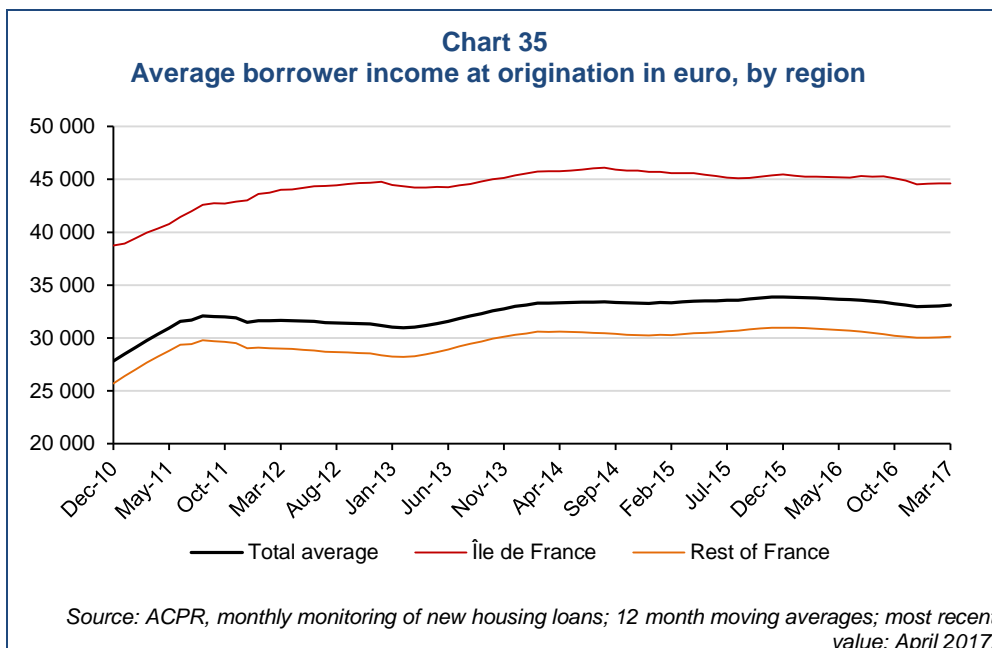
**Chart 34**  
**Average borrower income at origination in euro, by market segment**



Source: ACPR, monthly monitoring of new housing loans; 12 month moving averages; most recent value: April 2017.

The decrease in average income affected borrowers in the Île de France region less than borrowers in the rest of France (a 2% and 3% drop in 2016, respectively) – Chart 35.





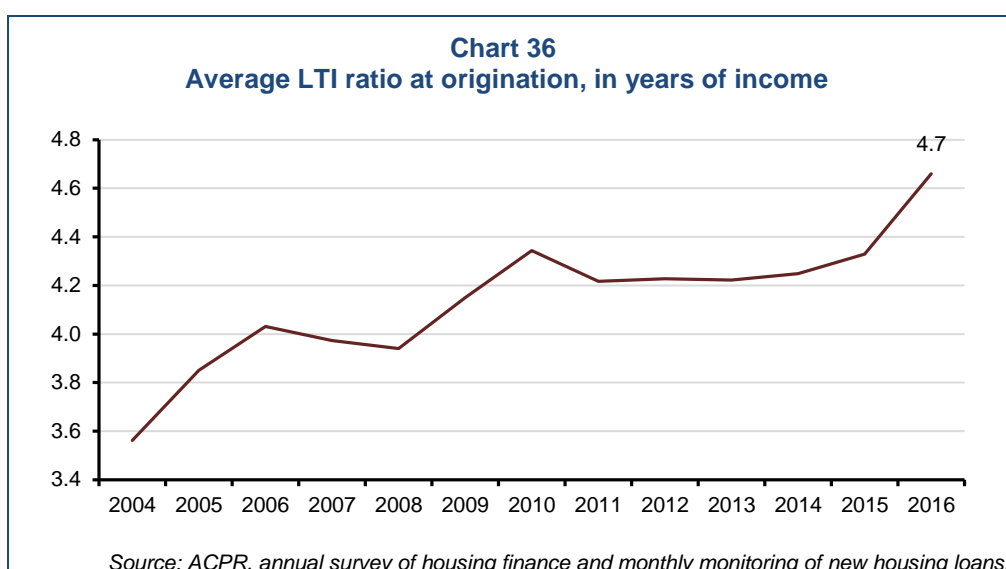
## 2.5. The loan-to-income ratio increased

### Note

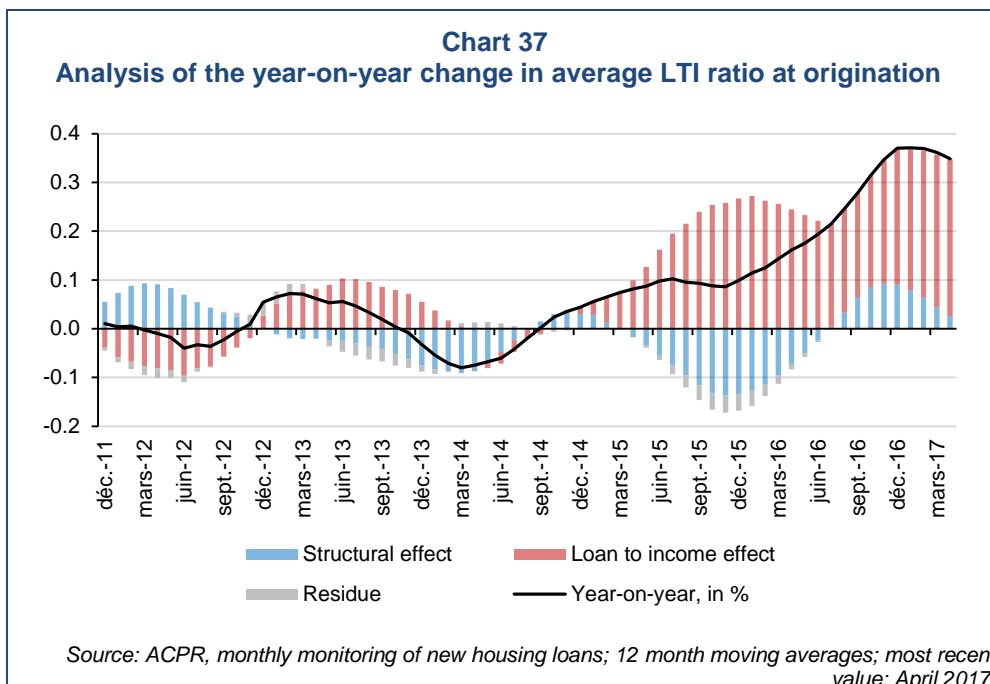
The loan-to-income (LTI) ratio at origination is the ratio of the average initial loan amount to the borrower's estimated annual income at that date.

The LTI ratio thus shows how many years of income a borrower would need to repay a housing loan.

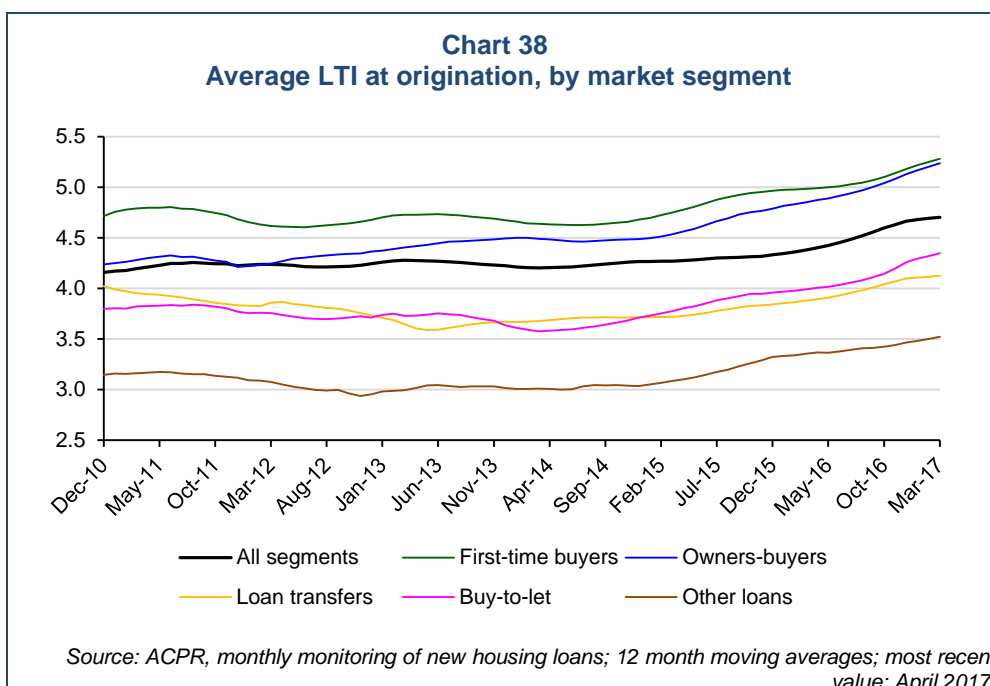
The drop in interest rates and the longer initial loan maturities have allowed borrowers to take on greater real estate debt without impacting their debt service ratio. As average income declined slightly during the year, the LTI ratio – expressed in years of income – rose sharply by almost four months in 2016, exceeding the previous peak in 2010 (Chart 36).



The growth in the average LTI ratio represents a continuation of the upswing observed across the various segments that began at the end of 2014 and was magnified from mid-2016 onwards by changes in the structure of new lending to feature greater representation for segments with the highest LTI ratios (Chart 37).

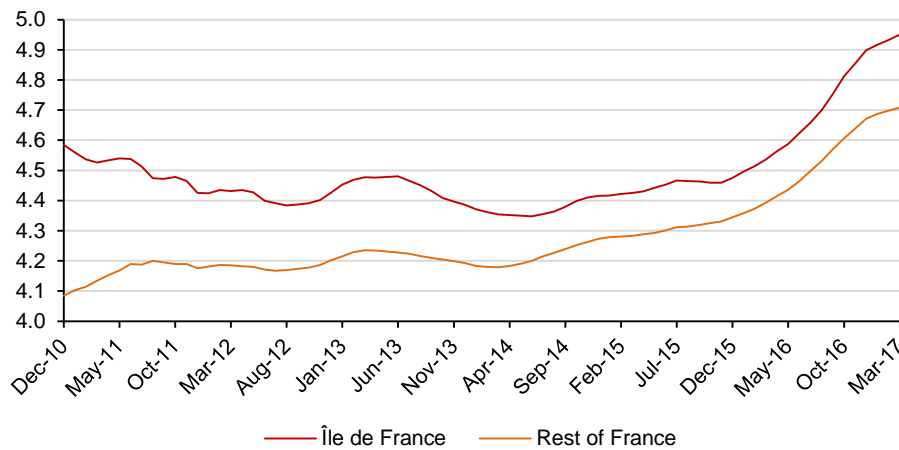


The average LTI ratio trend increase in 2015 continued in 2016 across all segments, although growth was more rapid for owner-buyers and buy-to-let than for the other segments (Chart 38). No significant changes to these trends were observed during the first few months of 2017.



In contrast to previous years, the LTI ratio grew more rapidly in 2016 in the Île de France region (a five-month increase) than in the rest of France (a four-month increase) – Chart 39. The difference between growth rates held true during the first few months of 2017, despite a modest slowdown.

**Chart 39**  
Average LTI at origination, by region



Source: ACPR, monthly monitoring of new housing loans; 12 month moving averages; most recent value: April 2017.

## 2.6. LTV and negative equity were up

### Note

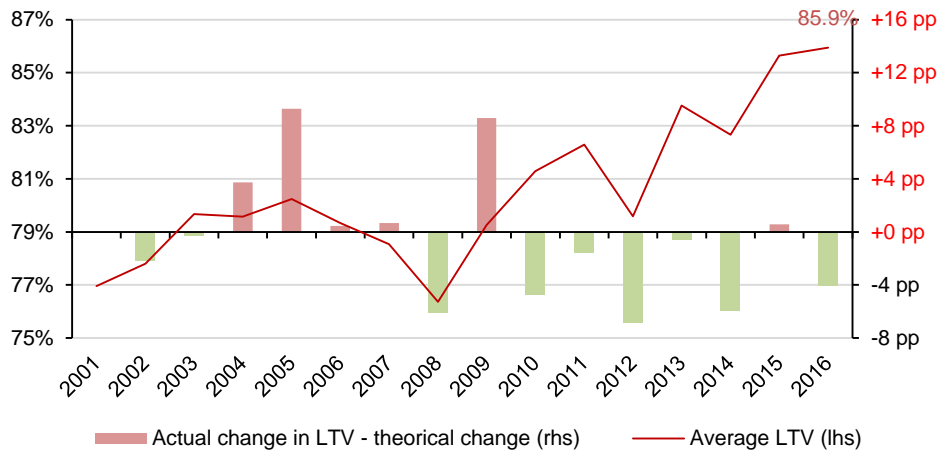
The loan-to-value (LTV) ratio at origination is the ratio between the amount of the main housing loan and the price of the purchased property (excluding stamp duty and legal fees). It can also be defined as the difference between 1 and the borrower's down payment rate. Banks in the survey report the average LTV per transaction weighted by the amount of new housing loans approved over the period.

During the life of the loan, the LTV is the ratio between the outstanding principal of the loan and the market value of the financed property. This information has been included in the ACPR annual survey since its revision in 2012.

Average LTV at origination continued to deteriorate in 2016 – albeit at a slower pace – to 85.9% (up 0.3 pp compared with an increase of 3 pp in 2015). Furthermore, in contrast to 2015, the actual change in LTV was outpaced by the theoretical change<sup>6</sup> (Chart 40).

<sup>6</sup> The theoretical change in LTV ( $\delta_n^*$ ) is measured by the relationship between the change in average loan amount ( $L$ ) and the change in the property price index ( $I$ ):  $\delta_n^* = (L_n/L_{n-1})/(I_n/I_{n-1})$ . The difference between the actual change in LTV ( $\delta_n = LTV_n/LTV_{n-1}$ ) and this theoretical change is interpreted as the result of a structural effect (change in the proportion of loans with a higher-than-average LTV, when  $\delta_n > \delta_n^*$ , or a lower-than-average LTV, when  $\delta_n < \delta_n^*$ ) and changes in lending standards (looser when  $\delta_n > \delta_n^*$ /tighter when  $\delta_n < \delta_n^*$ ), although the respective contributions of the two variables cannot be identified at this stage.

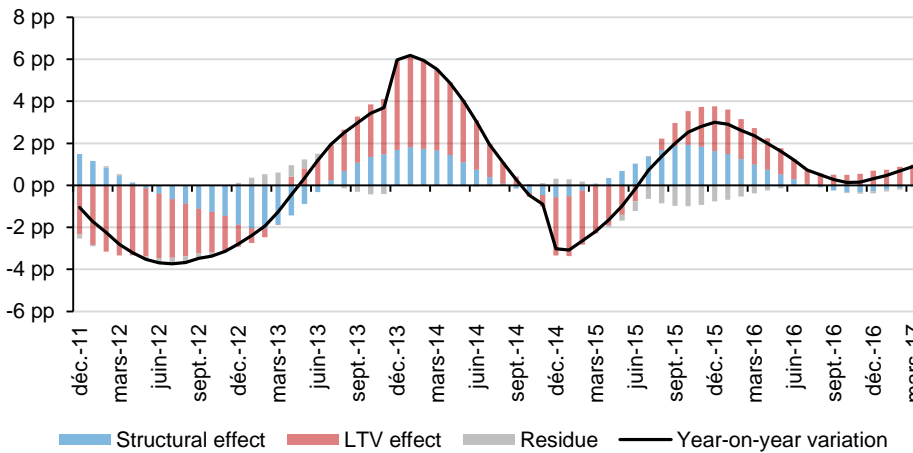
**Chart 40**  
**Average LTV at origination**



Sources: ACPR, annual survey of housing finance and monthly monitoring of new housing loans; INSEE.

The impact of the changes in the structure of new lending, which was highly unfavourable during the second half of 2015, gradually lessened during 2016 and became slightly negative from August 2016. At the same time, the increase in LTV observed in the main segments slowed progressively until the last quarter of 2016 before the trend reversed (Chart 41).

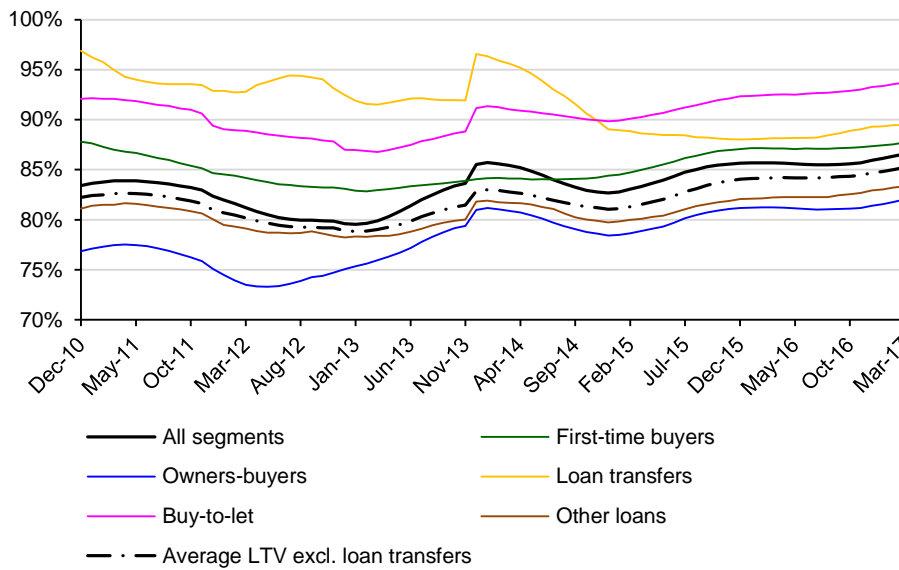
**Chart 41**  
**Analysis of the year-on-year change in average LTV at origination**



Source: ACPR, monthly monitoring of new housing loans; 12 month moving averages; most recent value: April 2017.

Although all the segments contributed to this increase in average LTV, the deterioration was particularly acute in the loan transfer (up 1.3 pp) and buy-to-let and other loans (both up 0.9 pp) segments. Furthermore, there was another, more rapid upturn in the LTV ratio during the first few months of 2017 in all market segments with the exception of loan transfers. Indeed, LTV excluding loan transfers grew twice as fast as average LTV in 2016 (up 0.6 pp) – Chart 42.

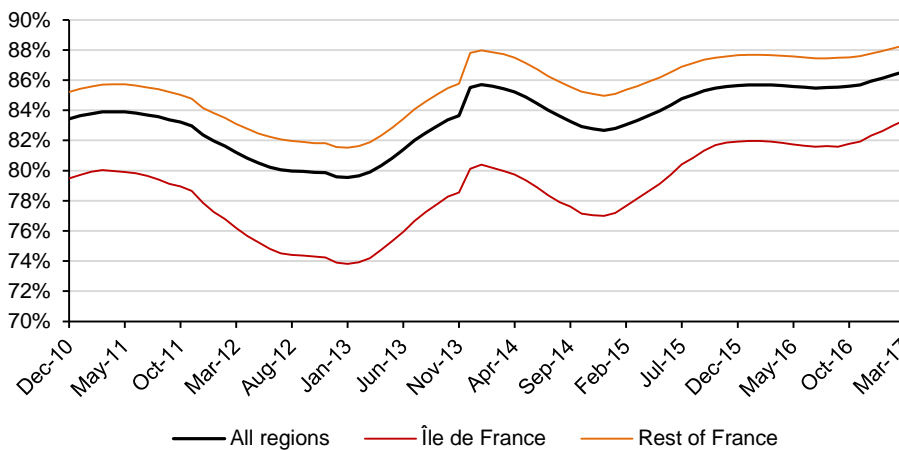
**Chart 42**  
Average LTV at origination, by market segment



Source: ACPR, monthly monitoring of new housing loans; 12 month moving averages; most recent value: April 2017.

Although the LTV ratio grew in both the Île de France region and the rest of France, the change was far more significant in Île de France (up 0.4 pp compared with 0.1 pp) and this trend intensified during the first few months of 2017 (Chart 43). The gap between the two regions is thus closing rapidly, from a high of 8 pp at the end of 2014 to 5.8 pp in April 2016 and down to 4.9 pp in April 2017.

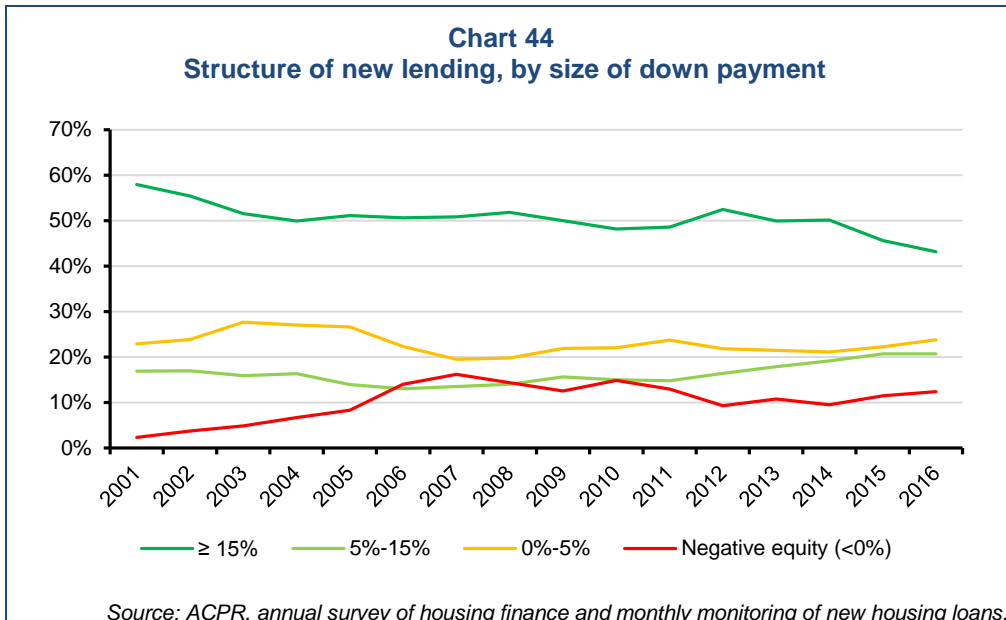
**Chart 43**  
Average LTV at origination, by region



Source: ACPR, monthly monitoring of new housing loans; 12 month moving averages; most recent value: April 2017.

The increase in the average LTV ratio stems from the decline in the share of loans with a down payment rate above 15% (down 2.5 pp), which is continuing to fall back after a decade of quasi-stability and now stands at 43.1%. This contraction was mainly offset by loans with a down payment rate of between 0% and 5% (up 1.6 pp) and to a lesser extent negative equity loans,<sup>7</sup> which, despite representing 12.4% of new lending, were still 4 pp below the 2007 peak (Chart 44).

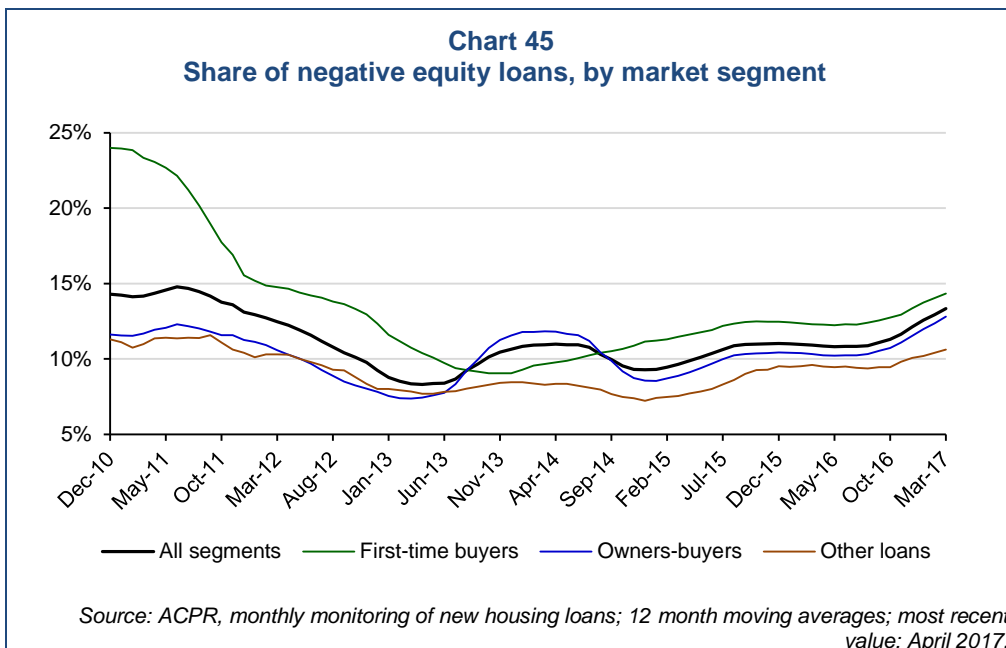
<sup>7</sup> Transactions where the loan at origination exceeds the value of the financed property, as the bank also finances, for example, the transaction fees or the cost of the guarantee, etc.



Although the share of negative equity loans had stabilised during the first half of 2016, it subsequently recorded a sharp upswing, increasing by 2.8 pp from June 2016 to April 2017. Furthermore, even though first-time buyers continued to be the major beneficiaries of negative equity loans, the greatest increase was in the owner-buyer segment (up 2.9 pp since mid-2016) – [Chart 45](#).

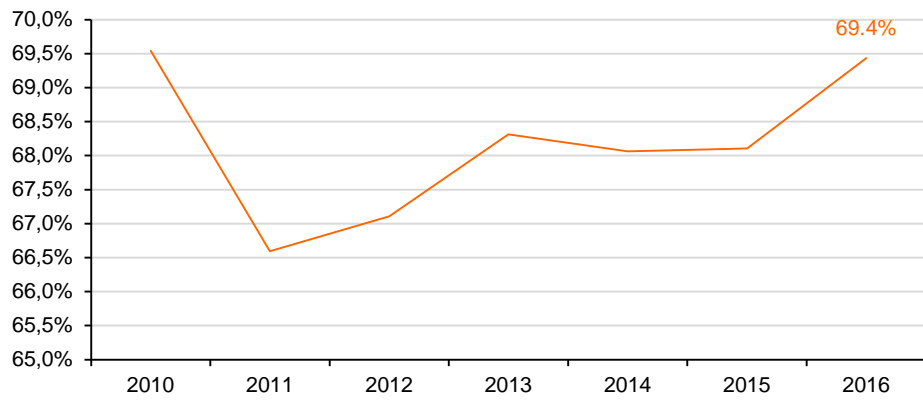
As in previous years, loans with the highest LTV ratios (more than 95%) are generally granted to:

- young (less than 40 years of age) or more elderly (65 years old) customers from manual and clerical socio-economic categories with insufficient savings to be able to finalise the sale, to finance subsidised affordable housing schemes;
- buy-to-let investors, who try to maximise their financial costs.



Lastly, the LTV on outstanding loans as measured on the basis of ACPR survey responses, rose sharply (up 1.3 pp to 69.4%), rapidly outpacing growth in LTV on origination, although there is still a significant gap between the two levels ([Chart 46](#)).

**Chart 46**  
**LTV on outstanding loans**

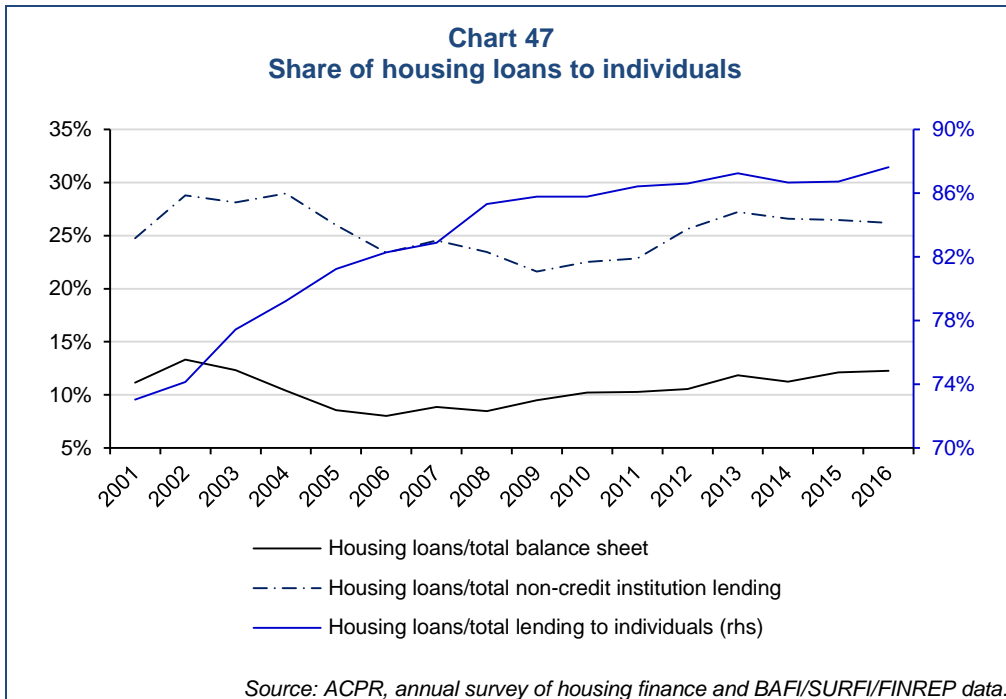


Source: ACPR, annual survey of housing finance.

### 3. Risks linked to housing loans

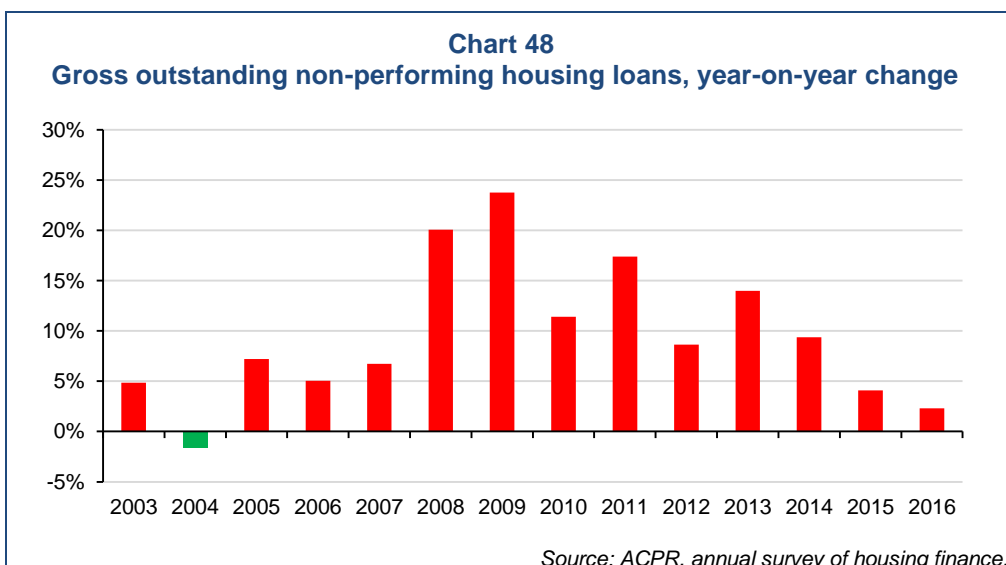
#### 3.1. Housing loans as a share of loans to individuals increased

While housing loans (EUR 899.4 billion at the end of 2016) as a share of total loans to individuals increased by 0.9 pp year-on-year to 87.6%, they recorded a more modest rise (up 0.2 pp) as a share of the total balance sheet. Conversely, housing loans as a share of total non-credit institution lending fell slightly by 0.3 pp – Chart 47.



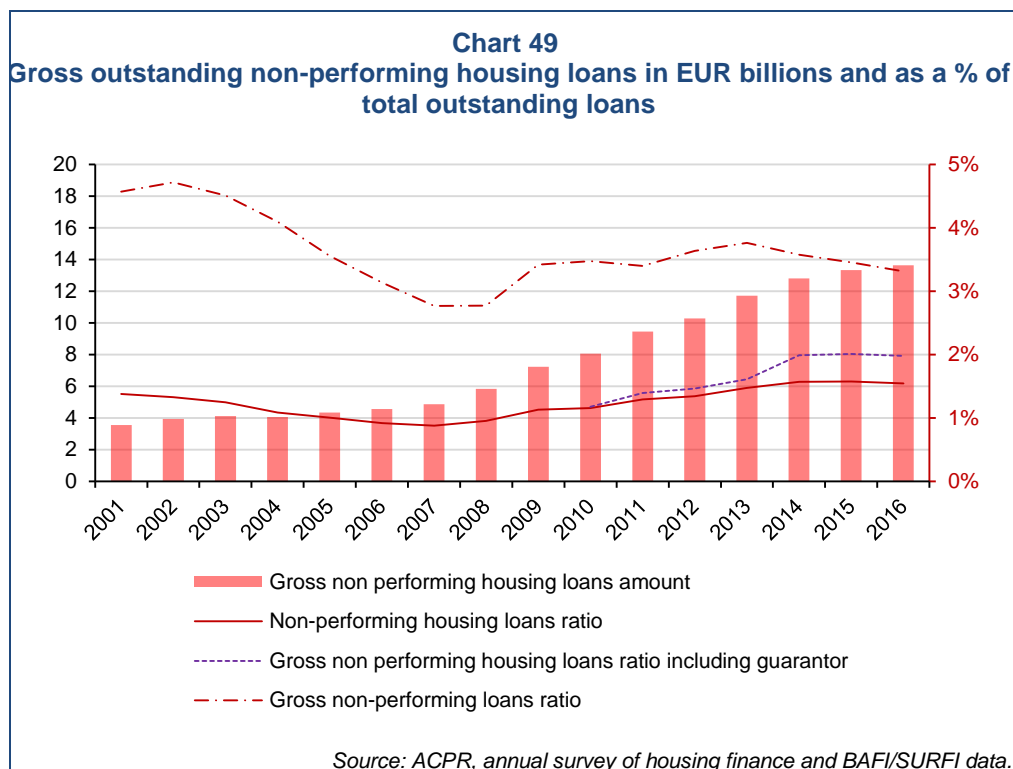
#### 3.2. Gross non-performing loans were relatively stable

Although the growth rate of gross non-performing housing loans continued to slow, it still increased year-on-year once again to EUR 13.6 billion in 2016 (up 2.3%) – Chart 48.





However, as outstanding performing loans increased at a more rapid pace (up 3.8% – see above), the ratio of gross non-performing housing loans fell back for the first time since 2008, down 3 bps to 1.54% at the end of 2016.<sup>8</sup> Taking into account non-performing loans recorded in the balance sheets of the main loan guarantors does not alter this trend, with the ratio of gross non-performing housing loans down 3 bps to 1.98%. The non-performing loans (NPL) ratio for housing loans therefore remained significantly below that of all non-bank lending, for which the gross NPL ratio, down 14 bps, amounted to 3.31% (Chart 49).

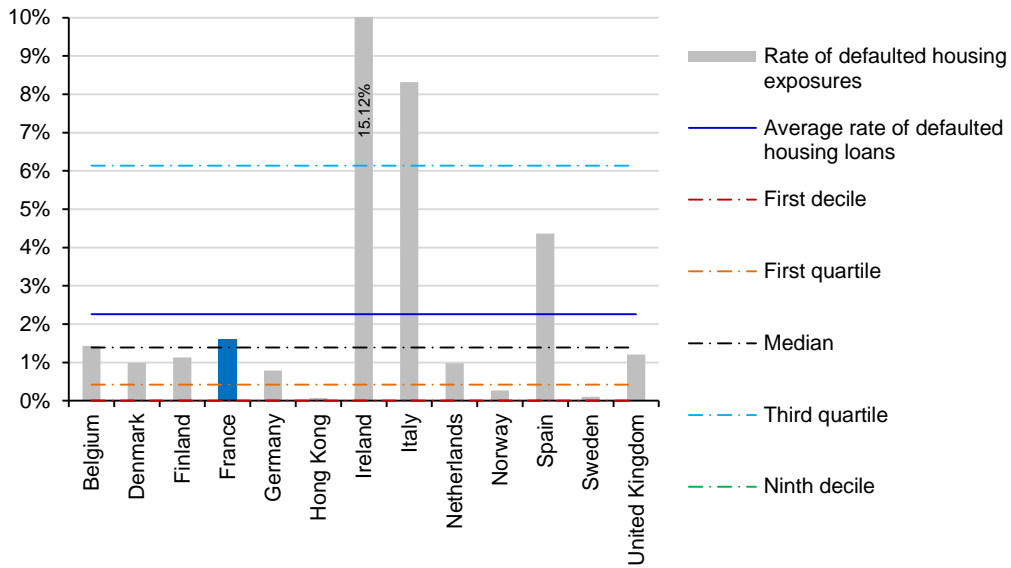


The data published by the European Banking Agency (EBA) as part of its most recent transparency exercise showed that the level of non-performing loans in France<sup>9</sup> was slightly above the median rate (which does not take the respective sizes of the different markets into account), but below the average for the countries where European banks reported exposures (Chart 50) The position deteriorated in Ireland, Italy and Spain, however.

<sup>8</sup> As mentioned in the 2015 study, the gross NPL ratio for housing loans might however be overstated insofar as some banks also include a portion of their exposures to individual entrepreneurs along with housing loans to individuals in their disclosures, while the outstanding NPLs that they report are solely divided by performing loans to individuals.

<sup>9</sup> Housing loans distributed in France by all banks in the EBA sample (therefore including foreign banks).

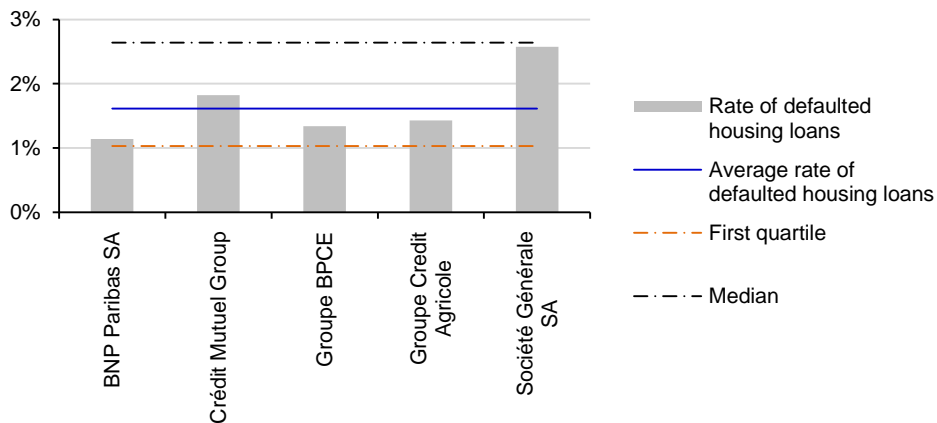
**Chart 50**  
**Rate of defaulted housing loans by country at 30 June 2016**



Sources: EBA, Transparency exercise (exposures to retail customer excluding SMEs secured by property; subject to the advanced internal ratings-based approach); ACPR calculations; only countries representing at least 1% of total housing loans declared by all banks covered by the EBA exercise are mentioned.

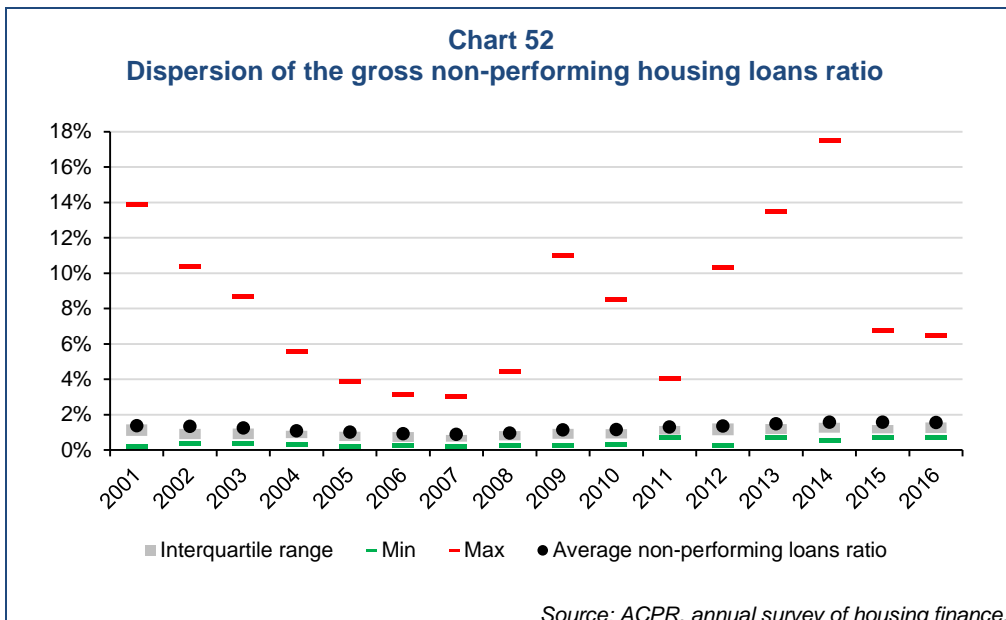
While all French banks fall below the median rate, their NPL rates are relatively varied across France. Société Générale in particular stands out with a defaulted housing loan rate that is significantly higher than its French competitors, in contrast to BNP Paribas, which is slightly above the first quartile (Q1) – [Chart 51](#).

**Chart 51**  
**Rate of defaulted housing loans in France at 30 June 2016**

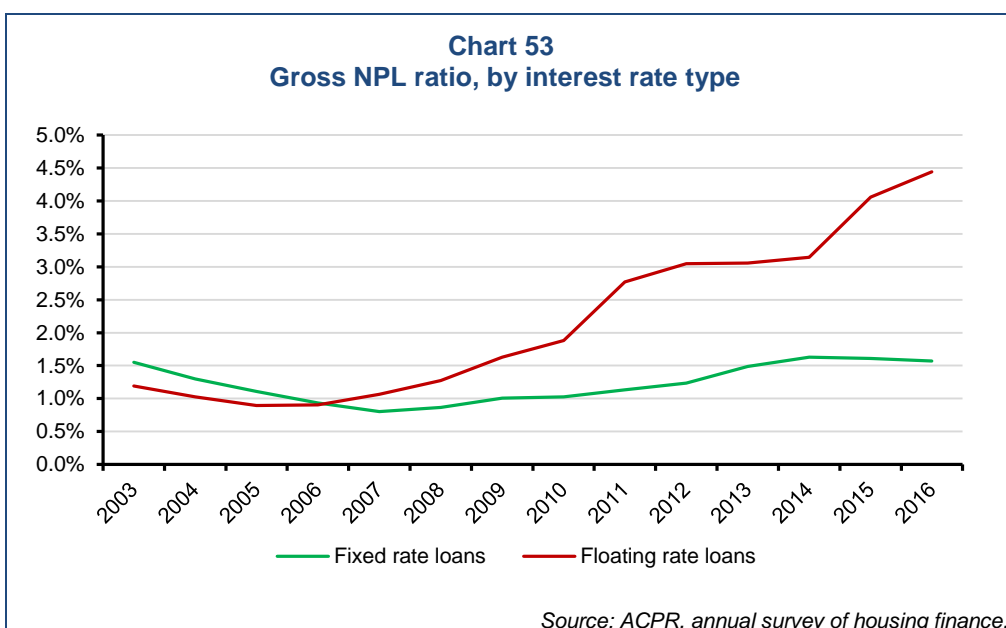


Source: EBA, Transparency exercise (exposures to retail customer excluding SMEs secured by property; subject to the advanced internal ratings-based approach); ACPR calculations on a sample of 28 banks that declared housing loans in France (French banks still account for 99.4% of housing loans distributed in France).

Similarly, the positions of certain institutions in the ACPR sample with regards to the gross NPL ratio are relatively unusual ([Chart 52](#)). However, the gap between the highest ratio and the average highlights that from one vintage to the next the institution concerned is always small.



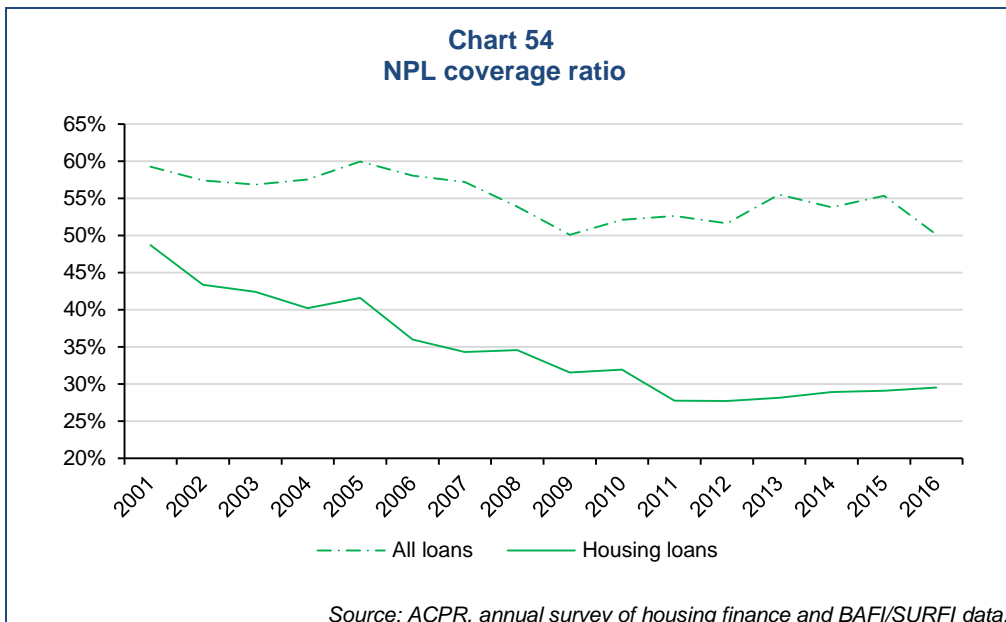
Lastly, the analysis shows that the gross NPL ratio continues to differ greatly depending on the interest rate type: although the ratio declined by 4 bps between 2015 and 2016 for fixed rate loans, it continued to increase for floating rate loans (up 38 bps to 4.4%) – [Chart 53](#).



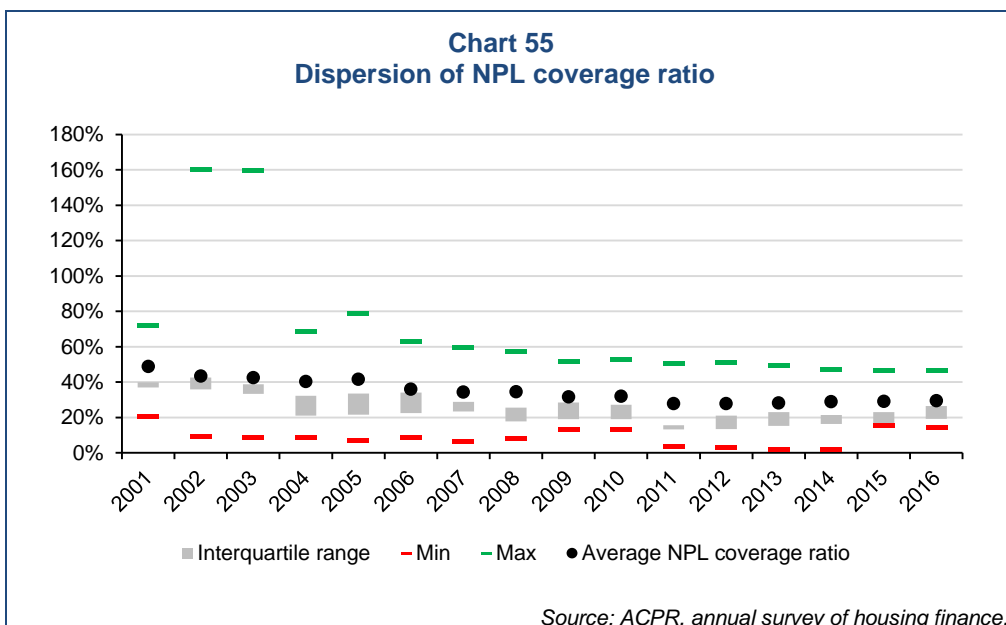
Note: given that the gross NPL ratios by interest rate type were calculated on the basis of a reduced scope (not all banks questioned disclosed information in this respect), they cannot be directly compared with the gross NPL ratio for all housing loans.

### 3.3. Coverage ratios improved

The NPL coverage ratio continued to improve, in line with the trend started in 2014 ([Chart 54](#)). Even so, at 29.5% (up 40 bps) it is still lower than its 2010 level and below the NPL coverage ratio for all non-bank lending, which declined by almost 5 pp year-on-year. The NPL coverage ratio for housing loans reflects the substantial guarantees provided to banks on these types of loans and in particular, the role played by guarantor bodies (see above).

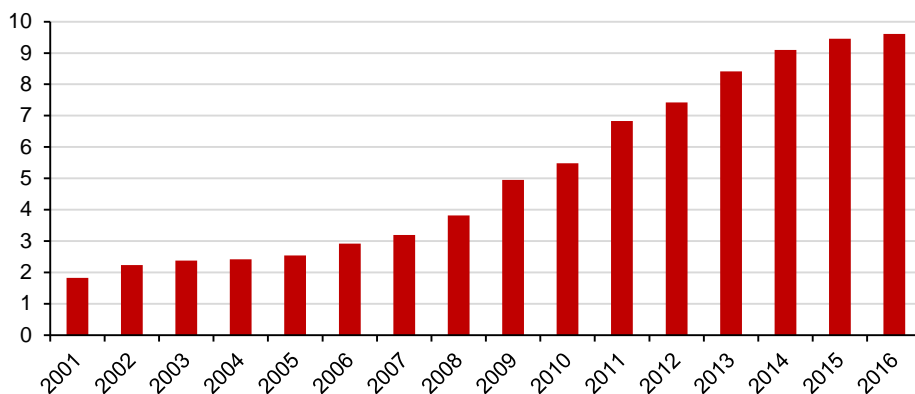


As mentioned above, the individual analysis highlights certain unusual positions for older vintages. By contrast, the dispersions for 2015 and 2016 were relatively small, even if the gap between the highest and lowest coverage ratios is still significant (a ratio of one to three) – [Chart 55](#).



The further improvement in the coverage ratio helped the net amount of non-performing housing loans to record its smallest year-on-year increase since 2004, rising by only 1.7% to EUR 9.6 billion ([Chart 56](#)).

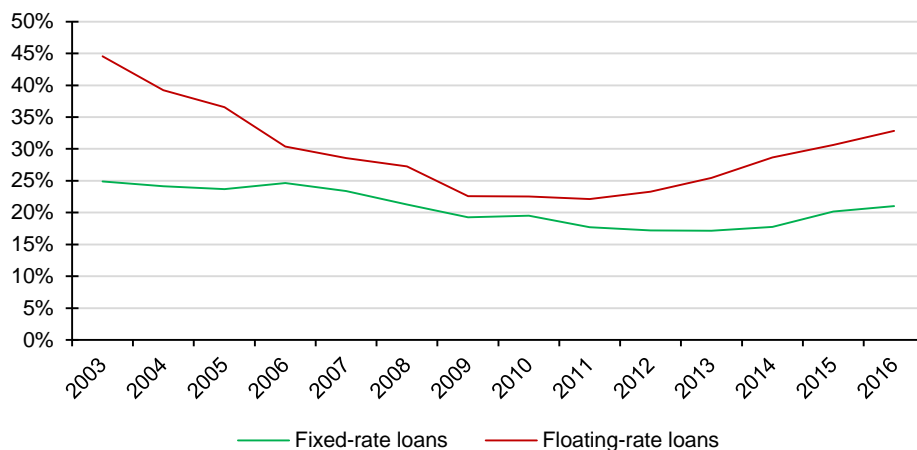
**Chart 56**  
**Net non-performing loans in EUR billions**



Source: ACPR, annual survey of housing finance.

Lastly, the coverage ratio for gross non-performing floating rate loans continued to recover and exceeded its 2006 level, reaching 32.8% (up 2.2 pp). The coverage ratio for fixed rate loans also improved, though to a lesser extent, increasing by 0.8 pp to 21% (Chart 57).

**Chart 57**  
**Coverage ratio for non-performing housing loans, by interest rate type**



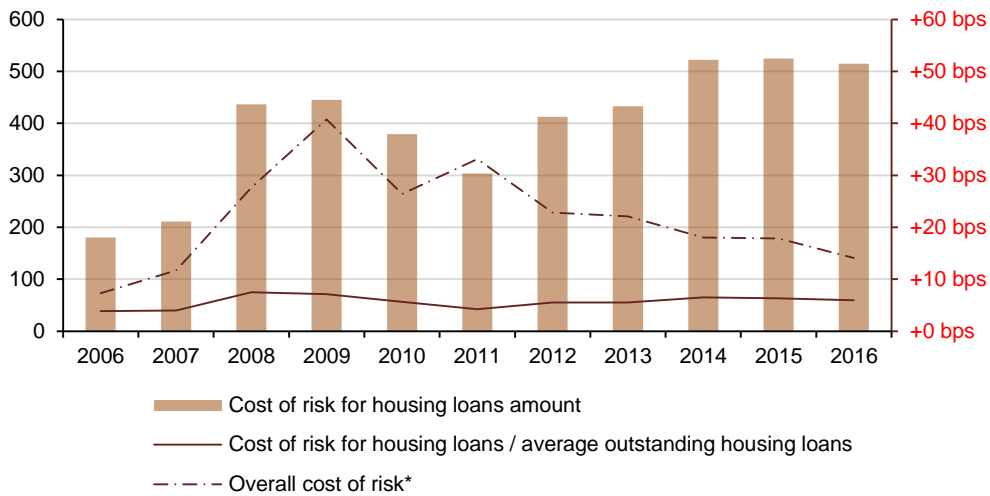
Source: ACPR, annual survey of housing finance.

Note: given that the coverage ratios by interest rate type were calculated on the basis of a reduced scope (not all banks questioned disclosed information in this respect), they cannot be directly compared with the coverage ratio for all housing loans.

### 3.4. The cost of risk declined slightly

At EUR 515 million, the cost of risk declined year-on-year by 1.9% (Chart 58). It also decreased as a ratio of average outstanding loans for the second year running, but at a slightly quicker pace year-on-year (down 0.4 bps to 5.9 bps in 2016 compared with 0.2 bps in 2015). Although the trend was less pronounced than for the overall cost of risk of the six main French banking groups, which, as a ratio of their total average assets for the year, declined almost constantly to 14.1 bps in 2016, the cost of risk for housing loans remained at a significantly reduced level.

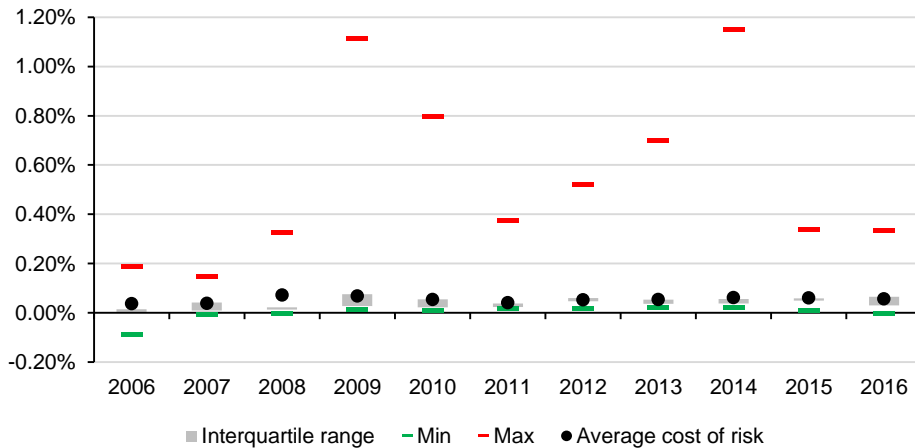
**Chart 58**  
**Cost of risk for housing loans in EUR millions and as a % of average outstanding loans**



Source: ACPR, annual survey of housing finance; banks' financial disclosures; cost of risk of the six main French banking groups as a ratio of their total assets.

Once again, the average masks individual positions that can vary substantially. Certain institutions exhibited a far higher cost of risk. As was the case for non-performing loans, however, the institutions in the least favourable positions are always small in size, with the average largely unaffected by changes to the highest cost of risk (Chart 59).

**Chart 59**  
**Dispersion of cost of risk for housing loans/average outstanding loans**



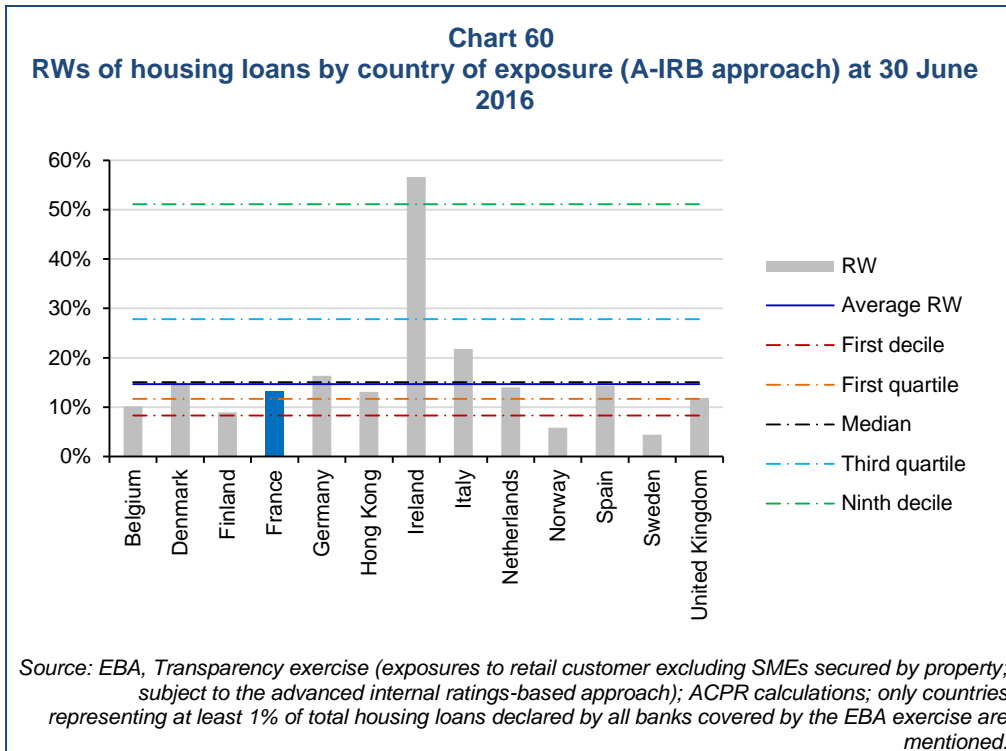
Sources: ACPR, annual survey of housing finance.

### 3.5. Risk weights were consistent with the average for European banks

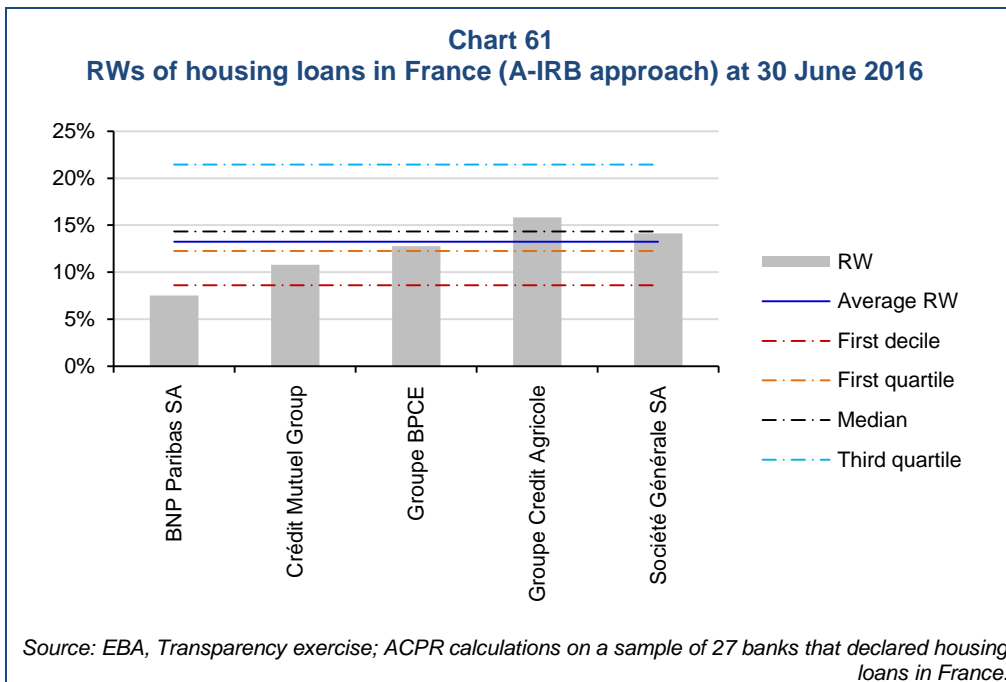
In this section we exclusively consider the risk weights (RW) for housing loans subject to the advanced internal ratings-based approach (A-IRB), which has been a focus of international debate given the significant leeway it gives banks to calculate them (using internal models).

First, with an average risk weight for housing loans distributed in France by French and foreign banks of 13.2% at 30 June 2016 (compared with 14.2% at 30 June 2015), it falls between the first quartile and the median rate (Chart 60). Certain countries stand out at either end of the spectrum: Sweden and Norway, with

average risk weights that are below the first decile (D1); and Ireland, whose average is above the ninth decile (D9).



As was the case for the rate of defaulted housing loans and the coverage ratio, French banks exhibit relatively different risk weights across France: while Crédit Agricole Group was above the median rate, BNPP stands out with a risk weight lower than the first decile (Chart 61); these divergences, similar to those for coverage ratios, could be a result of borrower characteristics or different guarantee schemes.



However, it should be remembered that this approach only gives a partial view of the risk weights for housing loans extended by French banks. This is because these banks are covered by substantial guarantees. In many cases, the banks are shareholders of the entities providing these guarantees and must deduct their stakes in them when determining their capital requirements.

Factoring in this additional cost materially changes the risk weights for housing loans extended by French banks. When their stake in Crédit Logement, weighted at 1,250%,<sup>10</sup> was added to their risk weight on housing loans, the average risk weight went up by 4.7 pp as at 30 June 2016 to 17.9%.

### 3.6. Margins dropped sharply

As mentioned at the beginning of the present study, significant volumes of loan transfers and renegotiations have been a characteristic of the low interest rate environment. The unprecedented scale of the phenomenon in 2015 and 2016 raises the question of its impact on the profitability of housing loans.

There are a number of difficulties associated with measuring the margin on these portfolios; the main one being linked to the use of internal interest transfer rates, which are calculated differently from one bank to another, complicating comparisons and interpretations of the figures available. The ACPR has thus developed a shared methodology for all banks (see [Box 2](#)).

Analysis suggests that in the long term, changes in the net margin mainly reflect those of the average liability cost ([Chart 62](#)):

- The average interest rate on outstanding housing loans has declined almost continuously since 2003;
- Overhead rates have been extremely stable since 2012 at a little over 1% following a very gradual decline from 2005 onwards.

The net margin ratio has improved significantly since the end of 2009: with the exception of the period from end-2011 to mid-2012, it has been positive, in contrast to the beginning of the data series when it registered extremely low and even negative levels (-1% at the end of 2000). After settling at around +0.4% from June 2014 onwards, it declined significantly during the first half of 2016 and continued to do so during the second half of the year. At a positive 0.05% at the end of 2016, the net margin on housing loans thus rediscovered its December 2012 level and was below the cost of risk (see above).

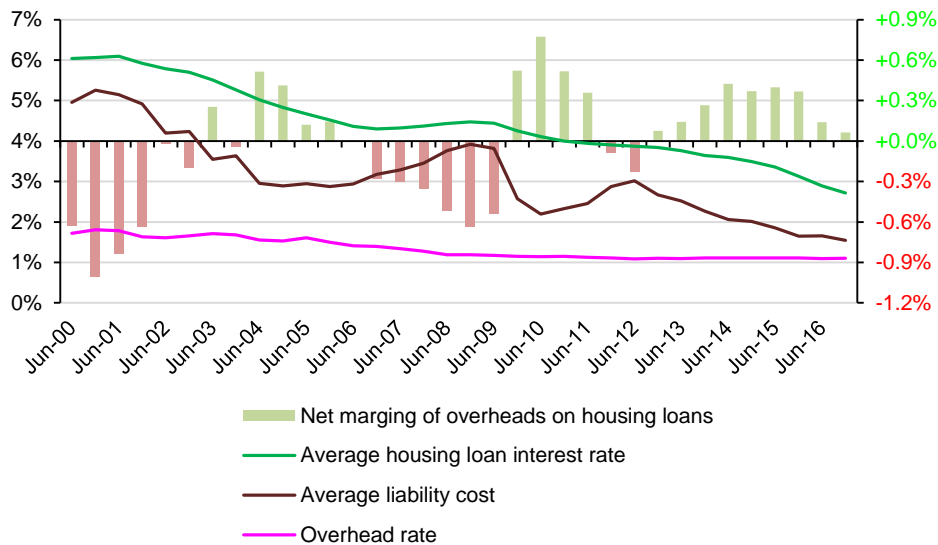
Even if loan transfers dropped off sharply in April 2017 (see above), as interest rates at origination are still significantly lower than the average rate for outstanding loans (the difference amounted to 121 bps in December) and a new decrease in the cost of bank financing seems unlikely, the decline in margins on outstanding loans should continue over the coming half-year periods.

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<sup>10</sup> A capital deduction being equivalent to a 1,250% weighting.



**Chart 62**  
**Changes in margins on outstanding housing loans**



Source: BAFI and SURFI data, all French banks; ACPR calculations.

**Box 2**  
**Estimating margins on housing loans**

Estimating margins on housing loans is based on a homogeneous approach for all banks:

- Net margins on housing loans are defined as the difference between the average interest rate for outstanding housing loans, the average liability cost and an overhead rate;
- The average interest rate for outstanding housing loans is equal to the ratio between the annualised interest on housing loans and the average outstanding housing loans over the previous 12 months;
- The average liability cost is equal to: (i) the sum of costs related to short-term and interbank borrowing, transactions with customers, securities transactions, subordinated debt and public funds, and the remuneration of equity, annualised; (ii) as a ratio of average balance sheet totals over the previous 12 months;
- The remuneration of equity is calculated as the product of the cost of capital estimated using a CAPM model and average net equity over the previous 12 months;
- The overhead rate is equal to the sum of staff costs, taxes and charges and external services, annualised, as a ratio of the average balance sheet totals over the previous 12 months.

Although this approach offers a shared methodology for all banks, it does nevertheless have several limitations:

- The analysis does not take into account other income that may be generated by housing loan customers (arrangement fees, sharing of insurance commissions, etc.);
- The average liability cost and the overhead rate are assumed to be identical for all activities;
- The average liability cost does not take into account potential income or expenses from asset/liability management;
- Housing loans are assumed to be refinanced exclusively from resources collected from French institutions;
- The cost of capital is assumed to be identical for all banks.

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