Macroprudential Recommendation on new credit agreements for consumers | progress report

May 2019

BANCO DE PORTUGAL
EUROSYSTEM

Lisbon, 2019 • www.bportugal.pt

Macroprudential Recommendation on new credit agreements for consumers – progress report • Banco de Portugal
Rua Castilho, 24 | 1250-069 Lisboa • www.bportugal.pt • Edition Financial Stability Department • Design
Museum and Communication Department | Design Unit • ISSN 2184- 5395 (*online*)

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Executive summary

Banco de Portugal, as the national macroprudential authority, is responsible for preventing the build-up of systemic risk within the financial system, adopting measures to prevent or mitigate such risk, with the purpose of promoting financial stability. Hence, in February 2018 Banco de Portugal announced the entry into force of a macroprudential measure regarding the criteria used by the institutions when granting new credit to households. This measure was implemented as a recommendation in July 2018, with the purpose of mitigating the build-up of systemic risk, increasing financial sector resilience and promoting households' access to sustainable financing.

This report aims to assess the degree of implementation of the Recommendation in the first few months since its entry into force. In the months that followed, Banco de Portugal interacted closely with major institutions in the Portuguese financial system, including institutions specialised in credit for consumption. This Report is mostly based on information on new credit to households reported by a sample of 13 institutions representing around 93% of new household credit business.

Given that the measure has entered into force recently and its review period is consequently short, it is still not possible to assess the Recommendation's impact in particular on new lending and house prices, given that at the moment the counterfactual can not be quantified, i.e. which developments would have occurred had the macroprudential measure not been adopted.

It is possible to conclude that the institutions have implemented the Recommendation, albeit somewhat gradually. However, the first few months of implementation of the Recommendation were affected by credit business for which the borrower's creditworthiness assessment was carried out prior to its entry into force. This was particularly evident in housing loans, for which the period between the creditworthiness assessment and the release of funds is longer than for consumption loans. Hence, as at July 2018, also due to some difficulties involved in the Recommendation's operational implementation by the institutions, credit agreements mostly whose underlying solvency criteria did not coincide with those in the Recommendation. Therefore, data for July 2018 are used as a starting point to assess the evolution of the borrower's risk profile throughout the period under review.

Comparing July 2018 to March 2019, there is significant convergence towards the limits set out in the Recommendation. With regard to the limits to the LTV (loan-to-value) ratio, credit granted with a higher LTV ratio declined considerably. In fact, in July 2018 more than 20% of credit for permanent residential property was associated with an LTV ratio of more than 90%, this share having decreased to less than 1% in March 2019. The segment of housing loans for other purposes also showed a convergence trend. In fact, whereas in July 2018 17% of total new housing loans for other purposes showed an LTV ratio above 80%, in March 2019 this share declined to 5%. The common justification for overrunning is the existence of other guarantees associated with the agreement and the borrowers' creditworthiness.

This convergence was also seen with regard to the DSTI (debt service-to-income) ratio. In fact, in March 2019 around 89% of new household loans was granted to borrowers with a DSTI ratio of 50% or less, with a 12 p.p. increase from July 2018. In turn, the share of credit granted with a DSTI ratio of over 60% declined from 16% to around 4% between July 2018 and March 2019 respectively, the latter already within the 5% exception established in the Recommendation. A breakdown of total credit in housing and consumption loans shows that in both segments the limits to the DSTI ratio are already within the boundaries established in the Recommendation.

Limits to maturity are generally observed in credit granted for housing purposes and consumption, with the average maturity declining, especially in the former. In effect, in July 2018 the average maturity of housing loans was 33.5 years, while in March 2019 it was 32.7 years. The Recommendation sets out convergence of new credit granted for housing purposes towards an average maturity of 30 years by 2022.

Finally, with regard to the regular payments requirement, a high degree of compliance with the Recommendation is observed, and in March 2019 only about 5% of total credit granted did not comply with this requirement. For the most part, the institutions duly provided justification for loans on the grounds that they were bridging loans (loans with only capital drawdowns).

Hence, the analysis shows that in general institutions are converging towards the limits set in the Recommendation, with the exceptions having been scrutinised by Banco de Portugal.

The development of new housing loans seems to show that the Recommendation helped reduce the share of credit granted to borrowers with a higher risk profile. In fact, from July 2018 to March 2019 there was a decline in the concentration of this type of credit for borrowers with net monthly income below €1,200 and a DSTI ratio over 60%. In March 2019 there was thus a greater concentration of housing loans granted to borrowers with higher net monthly income and a DSTI ratio from 30% to 40%. The consumption credit segment also saw a significant decline in the concentration of credit granted with a DSTI ratio over 60% across all net monthly income brackets. There is therefore evidence in this credit segment of a lower concentration of credit among borrowers with riskier profiles.

Overall, it can be concluded that as regards housing loans a higher share of credit is granted to borrowers with a lower DSTI ratio and a lower LTV ratio, thus increasing institutions' resilience to a possible deterioration of economic conditions and reducing their potential losses given a possible decline in the price of real estate collateral, also mitigating the risk of the borrowers' net worth reaching negative territory. From July 2018 to March 2019 the share of loans with a higher risk profile declined from 35% to 9%, in favour of an increase in the share of housing loans assigned to intermediate risk loans.

According to the analysis in this report, the limits established in the Recommendation are appropriate and effective in reaching the objectives established. Hence, the limits to the LTV and DSTI ratios and to the maturity, as well as the exceptions to these limits and the requirement of regular payments of interest and capital in new business, will remain unchanged until the new assessment, which will take place in the first quarter of 2020.

Banco de Portugal will also continue to monitor the implementation of the Recommendation by the institutions covered by this macroprudential measure, so as to prevent potential distortions of competition or actions that may jeopardise the Recommendation's effectiveness.

1 Macroprudential Recommendation within the legal framework of new credit agreements for consumers

As the national macroprudential authority,[1] Banco de Portugal approved a recommendation within the legal framework of new credit agreements for consumers[2] on 30 January 2018 introducing limits to some of the criteria used by institutions when granting this credit.

This macroprudential measure reinforces the importance of promoting an adequate risk assessment of these types of credit agreement, which has also formed the subject of a number of European Union and national legal initiatives governing credit agreements for households. Among these are, at European level: Directive 2014/17/EU of 4 February 2014 on credit agreements for consumers relating to residential immovable property (the 'Mortgage Credit Directive'), partially transposed into Portuguese law by Decree-Law No 74-A/2017 of 23 June 2017, and Directive 2008/48/EC of 23 April 2008 on credit agreements for consumers, transposed by Decree-Law No 133/2009 of 2 June 2009.

At national level, so as to regulate the creditworthiness assessment obligation provided for in of the above-mentioned legal documents, Banco de Portugal recently published Notice No 4/2017 of 22 September2017 laying down the principles and rules to be observed by institutions in this assessment. In accordance with this Notice, which reflects the guidelines issued by the European Banking Authority on the creditworthiness assessment obligation, a credit agreement for households should only be concluded where the outcome of the consumer's creditworthiness assessment indicates that the obligations resulting from the credit agreement are likely to be met in the manner required under that agreement's terms and conditions. This means that lenders should, prior to concluding the credit agreement and prior to any increase in the total credit amount, assess the consumer's ability and propensity to comply with the credit agreement. In addition, lenders should only conclude the credit agreement when the result of the creditworthiness assessment shows that the obligations of the credit agreement can be complied with under the relevant applicable law. The creditworthiness assessment should be based on required, sufficient and proportionate information on household income and spending as well as other financial and economic circumstances. Thus, the collateral requirement may only result from the assessment of the borrower's creditworthiness, with the aim of mitigating risks identified over the course of that assessment.

> The Recommendation aims to promote resilience in the financial sector and sustainable financing for households

The Recommendation was adopted with the purpose of preventing a build-up of risks within the financial system, considering on the one hand, an environment of low interest rates, economic recovery and higher real estate prices, which favours an easing in credit standards. On the other

1 Pursuant to its Organic Law, approved by Law No 5/98 of 31 January 1998, in its current version.

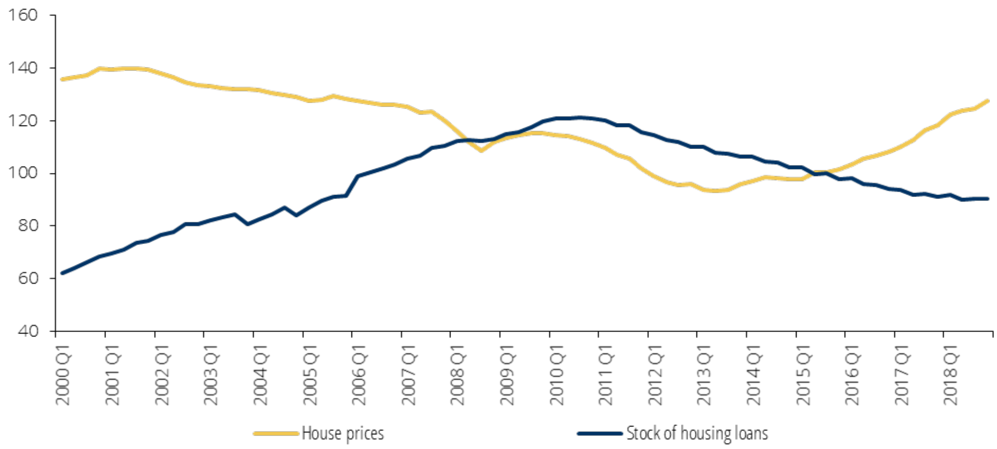
2 Consumer means a natural person acting with purposes other than those of his or her commercial or professional activity in the credit agreements covered by the provisions of Decree-Law No 133/2009 and Decree-Law No 74-A/2017.

hand, when designing this macroprudential measure, Banco de Portugal also took into account the ongoing high indebtedness level and low saving rate of households, which makes them more vulnerable to adverse macroeconomic and financial developments.

With this Recommendation, Banco de Portugal seeks to take action preventively, in order to encourage, on the one hand, credit institutions and financial companies not to take excessive risk when granting new credit, setting out suitable credit standards that contribute to the resilience of the financial sector to adverse shocks. In turn, the intention is also to promote access to sustainable financing for borrowers, minimising default risk. Hence, the Recommendation limits credit to borrowers with a higher risk profile, making it possible to accommodate the expected rise in interest rates and the likely reduction in the borrower's income upon retirement.

A prolonged low interest rate environment, combined with a scenario of economic recovery, creates incentives for greater competition among banks and a potential excessive easing of credit standards. Actually, immediately prior to the adoption of this macroprudential measure, there was evidence of an easing in credit standards for households and encouragement to grant credit to borrowers with a higher risk profile, thus increasing the probability of default. These borrowers' ability to service debt is particularly vulnerable to rising interest rates and income reduction. The interest rate rise involves an increase in debt servicing costs, which may become too high and compromise the ability of households that are more indebted and/or have lower income to make their debt repayments, thus possibly increasing their default. This risk is higher with a variable interest rate scheme and/or when household indebtedness remains high. In addition, housing prices in Portugal started on a recovery path as of mid-2013, thus reversing the downward trend (Chart 1.1). From the second quarter of 2013 to the fourth quarter of 2018 housing prices increased by around 37% in real terms, after a cumulative fall of approximately 19% between the first quarter of 2010 and the second quarter of 2013. However, there is no evidence that domestic bank credit is the main driver of the price rises in the real estate market in Portugal. In fact, the ratio of gross flows of new housing loans to the traded amount of family dwellings stabilised in recent quarters at values close to 40%, i.e. significantly lower than observed in 2010 (65%) (Chart 1.2). On the other hand, the stock of housing loans has continued to fall at an increasingly lower pace, down by 0.4% in February 2019.[3]

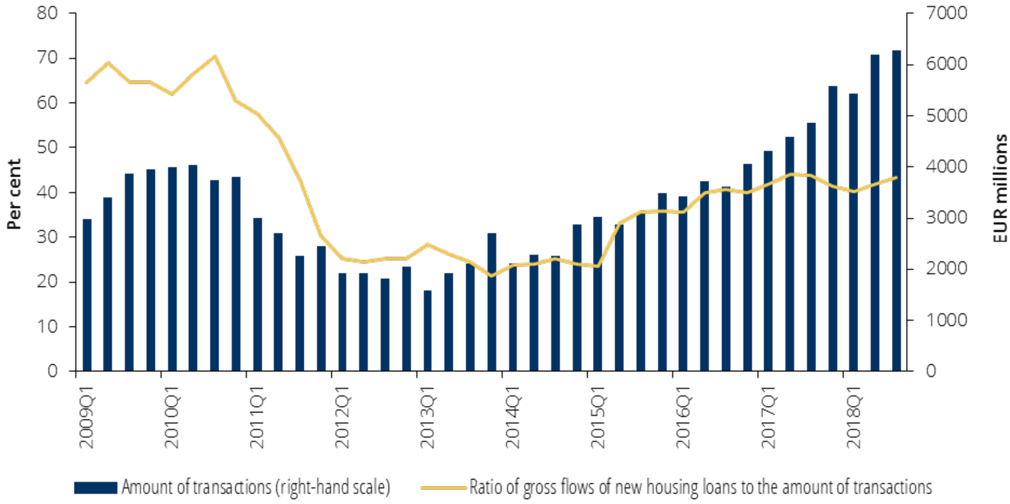
Chart 1.1 • House prices and stock of housing loans in real terms| Index (2015=100)



Source: Organisation for Economic Cooperation and Development and Banco de Portugal. Note: The latest observation is for 2018Q4.

3 Rate calculated based on adjusted values of write-offs and sale of credit portfolios.

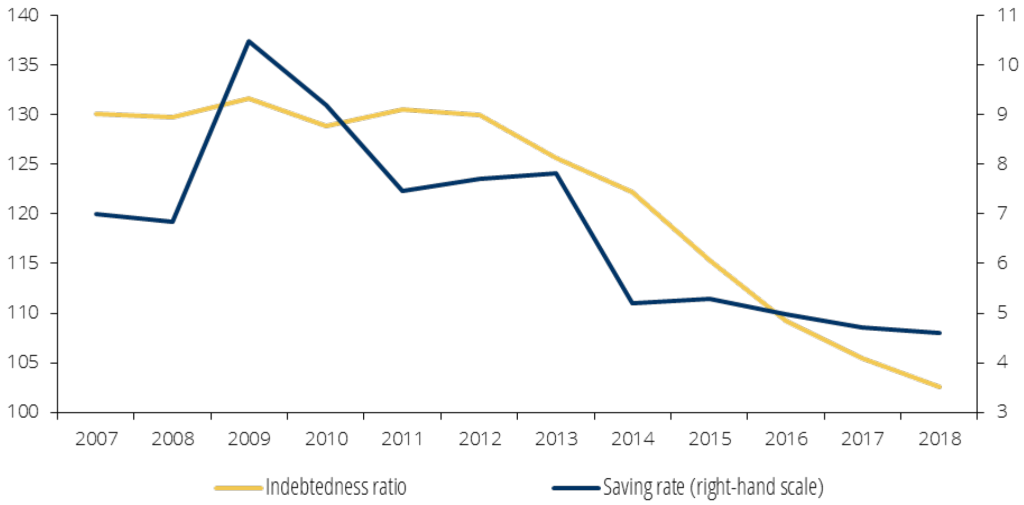
Chart 1.2 • Amount of transactions and ratio of gross flows of new housing loans to the amount of transactions in family dwellings



Source: Statistics Portugal and Banco de Portugal.

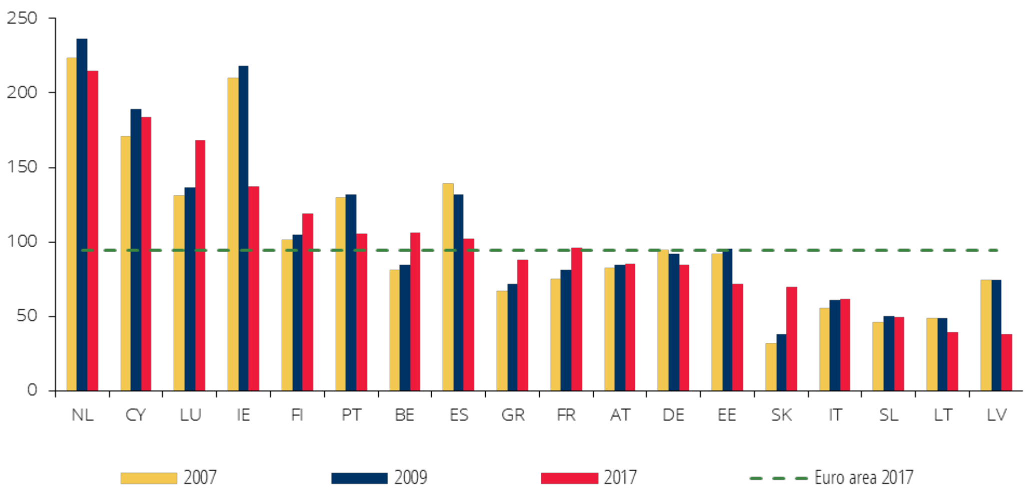
The high indebtedness level, combined with a low saving rate, renders households more vulnerable to reductions in income and short-term interest rate rises. In fact, the Portuguese household debt ratio has remained at levels higher than the euro area average, although it has been declining quite considerably since 2009. The household indebtedness ratio as a percentage of disposable income stood at 103% in 2018 (Charts 1.3 and 1.4). The saving rate continued on the downward trend followed in recent years, standing at a very low level in 2018 (4.6% of disposable income).

Chart 1.3 • Indebtedness ratio and gross savings of households | Percentage of disposable income



Sources: Statistics Portugal, Eurostat and Banco de Portugal calculations.

Chart 1.4 • Household debt ratio | Percentage of disposable income



Sources: Statistics Portugal, Eurostat and Banco de Portugal calculations.

This Recommendation does not aim to affect overall credit granted but limit the granting of credit to borrowers with a higher risk profile. Also, this measure does not intend to influence developments in the real estate market per se. However, it may have a mitigating effect on the feedback loop risk between domestic credit and real estate prices.

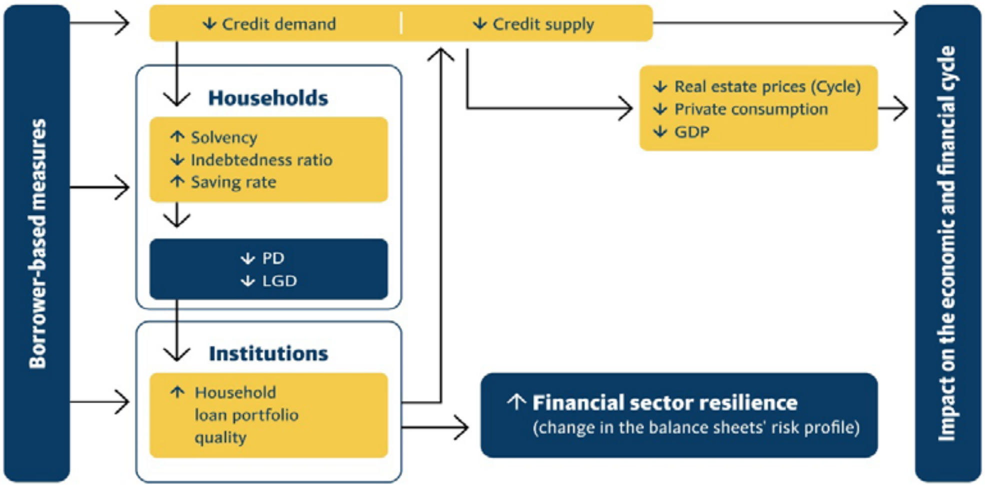
The macroprudential measure applied to household credit standards establishes limits to: (i) the ratio of the total amount of credit agreements secured by immovable property to the minimum between the purchase price and the appraisal price of the immovable property pledged as collateral[4] (LTV- loan-to-value ratio); (ii) the ratio of the total amount of monthly instalments of a borrower's total debt (the instalments are assumed to be constant, and the impact of an interest rate rise is considered) to his/her monthly income less taxes and compulsory social security contributions adjusted for the borrower's age at the end of the agreement and his/her occupational status (DSTI- debt service-to-income ratio); and (iii) the original maturity of the loans. This measure affects both the flow of credit in the short term (and consequently has a gradual impact on the credit stock in the medium term) and household debt capacity through the value of collateral. In addition, by restricting the credit amount to the borrower's income or the value of collateral, these instruments reduce the probability of default by borrowers, thus improving the quality of the institution's portfolio of credit granted to households (Figure 1.1). In turn, by limiting the degree of households' leverage, they become more resilient in case of materialisation of risks related to interest rate rises, falling housing prices or negative shocks in borrowers' income.[5]

The simultaneous implementation of these limits helps reinforce this measure's effectiveness. In fact, limits to the LTV ratio may become less restrictive in a context of rising housing prices, which is why they are combined with DSTI limits, which in turn are combined with limits to maturity. In effect, limits to the DSTI ratio act as automatic stabilisers, given that they become tighter in the expansionary phase of the financial cycle, since real estate prices tend to grow faster than the borrowers' income. On the other hand, for a given loan amount, extending the maturity would

4 For further details see Article 3 of the Recommendation within the legal framework of new credit agreements for consumers.
5 For further details, see Leal, A. C. and Lima, D. (2018), Macroprudential policy in Portugal: experience with borrower-based instruments, Banco de España, *Revista de Estabilidad Financiera*, No 35.

make it possible to reduce the related monthly costs. Hence, establishing a limit to maturity makes it possible to prevent limits to the DSTI ratio from being circumvented.

Figure 1.1 • Transmission mechanism of borrower-based measures



Notes: Adapted from: Committee on the Global Financial System (2012), Operationalizing the selection and application of macro-prudential instruments, CGFS papers No 48, December. PD – *Probability of Default*, LGD - *Loss Given Default*.

These instruments may also impact on other macroeconomic and financial variables (notably real estate prices, private consumption or household indebtedness). In fact, limits to the LTV ratio may mitigate some procyclicality associated with excessive growth in housing prices fostered by credit granting. This procyclicality results from the fact that, in a context of excessive price rises, households' ability to obtain credit is greater. With the introduction of limits to the LTV, as set out in the Recommendation (based on the minimum between the purchase value and the appraisal value), households, for whom this limit is restrictive, may experience a reduction in the available credit. Lower demand for credit for the purchase of residential property might, in turn, have an impact on housing prices. On the other hand, applying a ceiling to households' spending on credit given their monthly net income might affect credit-backed private consumption. Finally, imposing more restrictive limits to the LTV ratio than market criteria makes it necessary for borrowers to raise their equity, which leads to potentially lower growth in their indebtedness level.

The Recommendation applies to new credit agreements for consumers, namely credit relating to residential immovable property, credit secured by a mortgage or equivalent guarantee and credit for consumption

As of 1 July 2018 the Recommendation applies to agreements for credit relating to residential immovable property credit secured by a mortgage or equivalent guarantee and credit for consumption concluded by credit institutions and financial companies having their head office or branch in Portugal.

When designing this measure Banco de Portugal took into consideration the exclusion of credit intended to prevent or address default situations, considering the ongoing high level of non-performing loans on the Portuguese banks' balance sheet. These are situations in which credit risk has materialised or is about to and, as such, greater flexibility in the design of these agreements is deemed acceptable from the risk management viewpoint. Credit agreements concluded under the framework for granting subsidised housing credit for the disabled are also excluded.

The Recommendation is also not applicable to credit agreements of an amount equal to or lower than the equivalent to tenfold the guaranteed monthly minimum wage, given that as regards the conclusion of low-amount credit agreements institutions may estimate the borrower's income based on information they deem sufficient, there being no need for them to obtain evidence of that income. Hence, compliance with procedures that could excessively restrain the consumption credit market is not required.

Finally, the scope of this Recommendation excludes credit agreements in the form of an overdraft facility and other credit with no defined repayment schedule (including credit cards and credit lines), given the difficulty in applying some of the measures envisaged in the Recommendation to these agreements. This is the case of the calculation of limits to the DSTI – whose formula requires, for the numerator, the repayment amount under the new credit agreement to be constant – and the application of limits to the original maturity of agreements, given that this type of agreement has no previously defined repayment schedule or determined duration. However, Banco de Portugal monitors developments in credit agreements for households excluded from the scope of the Recommendation.

The Recommendation sets forth a series of relevant limits for credit standards

Given the desired preventive nature of the macroprudential measure and the initial stage of risk build-up, Banco de Portugal decided to introduce limits: (i) to the LTV ratio; (ii) to the DSTI ratio; and (iii) to the original maturity of new loans (Table 1.1). Banco de Portugal considered these to be the most suitable instruments to promote the Portuguese financial system's sustained adoption of prudent credit standards. The Recommendation also establishes that new credit operations should have regular payments of interest and capital.

Banco de Portugal has set differentiated limits that are not very far from the banking sector's current credit granting practices. The combination of limits was chosen taking into account national and international guidelines on the borrowers' creditworthiness assessment when granting credit and a cost-benefit analysis for each instrument. In turn, the calibration of the various instruments' levels was based on international experience in the adoption of similar instruments.

With regard to international experience, several countries have introduced macroprudential measures[6] in order to mitigate the risks of excessive growth in loans to households, especially those associated with housing loans and real estate developments.[7] The macroprudential measure adopted by Banco de Portugal is innovative to various degrees and differs from other international measures adopted. Firstly, it is ground-breaking insofar as it covers both housing and consumption loans, and most countries have only set limits for the former. Secondly, the measure considers interest rate shocks, in the case of variable or mixed interest rate agreements, and shocks to the borrower's income in the calculation of the DSTI. Finally, although a larger group of international authorities have adopted only one criterion, the simultaneous introduction of limits – LTV, DSTI and maturity – enhances their effectiveness.

6 A list of adopted measures, including a number of details, is regularly updated and is available on the website of the European Systemic Risk Board (ESRB), https://www.esrb.europa.eu/national_policy/html/index.en.html.

7 For further details see the June 2018 *Financial Stability Report*.

Table 1.1 • Summary of the Recommendation on new consumer credit agreements

A LTV limits	New credits relating to residential immovable property for the purchase or construction of own and permanent residence **LTV ≤ 90%**
	New credits relating to residential immovable property or credit secured by a mortgage or equivalent guarantee for other purposes than own and permanent residence **LTV ≤ 80%**
	New credit relating to residential immovable property and credit secured by a mortgage or equivalent guarantee for purchasing immovable property held by the institutions themselves and for property financial leasing agreements **LTV ≤ 100%**
B DSTI limits	Credit contracts should have **DSTI ≤ 50%**, with the following exceptions on the total amount of credit granted by each institution in each year - up to 20%: DSTI ≤ 60% - up to 5%: no DSTI limit For the calculation of the DSTI, monthly instalments of new loans are assumed constant over the entire period of the loan. For variable and mix interest rate contracts, he impact of an interest rate rise should be considered. The DSTI should also take into account the impact of a reduction in the borrower's income, if the borrower's age at the term of the loan contract is higher than 70 years old, except if the borrower is already retired at the time of the creditworthiness assessment.
C Limits to maturity	For credits relating to residential immovable property or credit secured by a mortgage or equivalent guarantee: - Maturity of new credit agreements ≤ 40 years - Average maturity of new credit agreements should gradually converge to 30 years until the end of 2022
	For consumer credit agreements: - Maturity of new loans ≤ 10 years
D Requirement of regular payments	New loans should be granted with regular payments of interest and capital

The definition of distinct limits to the LTV depending on the purpose of the loan is warranted by the fact that it is more likely that in the event of financial difficulties borrowers favour compliance with the obligations of credit agreements for the purchase of or secured by own and permanent residence, because they value the safeguarding of their house. Hence, by requiring a minimum collateral value pledged for debt servicing upon entering into the agreement, the limits to the LTV ratio help minimise financial system losses in the event of default (Loss Given Default). International experience also highlights the importance of distinct, stricter limits in the case of purposes other than the purchase of own and permanent residence, as defined in the Recommendation. However, it was necessary to introduce differentiated limits in the case of property financial leasing agreements, with distinct features compared to conventional housing loans and loans financing the purchase of property held in portfolio (limit of 100% to the LTV ratio) to ensure that institutions continue on with the reduction of non-performing assets on the balance sheet, which are partly comprised of immovable property. An aspect that differentiates this Recommendation from banks' practices is the use of the minimum between the purchase value and the appraisal value in the calculation of the LTV denominator, with the industry using the appraisal value more often.

By restricting the monthly instalment associated with loan amounts for a given income level, the limits to the DSTI ratio help decrease the borrower's probability of default. However, to prevent a possible disruptive impact on credit granting, some exceptions have been introduced to the DSTI ratio limit. Although the DSTI ratio is key for ascertaining the probability of credit default, there are other important factors for ascertaining this risk, such as the borrower's level of wealth, the existence of a guarantor, or the amount of the borrower's other regular expenses. Taking into account DSTI ratio-related limitations and the wider group of indicators used by credit institutions when assessing specific risk situations, Banco de Portugal has allowed institutions in some cases to exceed the limit set for this ratio. Should credit institutions use these exceptions, they will have to submit to Banco de Portugal an explanation of the risk-mitigating elements considered in the transactions covered by the exception, for an assessment of compliance with the Recommendation.

In accordance with the Recommendation, new credit agreements should observe a DSTI ratio limit of 50%, with the following exceptions:

– up to 20% of the total amount of credit granted by each institution in each year may be granted with a DSTI ratio of up to 60%;

– up to 5% of the total amount of credit granted by each institution in each year is exempted from the limits above.

Agreements excluded from the scope of this macroprudential measure should be considered in the calculation of the DSTI ratio, provided that they present a defined repayment schedule.

The monthly instalment of the new credit agreement should be calculated assuming that it is constant throughout the agreement's lifetime and considering the impact of an increase in the interest rate agreed. The requirement of calculating the DSTI ratio assuming constant instalments was introduced to avoid having instalments of a lower value at the beginning of the agreement, in the case of increasing instalment systems or deferred and grace periods for principal repayment which would result in a more favourable DSTI ratio for the consumer in the short run, and possibly create the illusion of ability to service debt over the whole lifetime of the agreement. This type of agreement tends to be associated with higher default ratios. Given the expectations of a rise in interest rates, the calculation of the DSTI ratio also takes into account, in the numerator, an interest rate rise, which varies depending on the original maturity of agreements and the interest rate scheme (Table 1.2). The aim is thus to test whether borrowers are able to bear the effects of an expected rise in interest rates on the debt service.

Table 1.2 • Increase in the index

	Maturity of the agreement and increase in the index		
Interest rate scheme	≤5 years	>5 years and ≤10 years	>10 years
Variable and mixed	+1 pp	+2 pp	+3 pp

Note: In the case of credit agreements at a mixed interest rate, the institution should consider the heavier instalment for the customer between that resulting from applying the increase in the index, taking into account the maturity of the agreement in the variable interest rate period, and that resulting from the fixed rate period.

In Portugal, the materialisation of this scenario may have a particularly important impact on the ability to pay back loans, since credit granting to households, especially for house purchase, continues to be mostly at variable or mixed interest rates.

As an illustration, for a 35-year-old borrower with a monthly income less taxes and compulsory social security contributions of €1,500 and with no prior loans, assuming a credit agreement with a maturity of 40 years, a variable interest rate, -0.25% index and fixed spread throughout the agreement's lifetime at 2.25 p.p., the DSTI ratio associated with this agreement that is actually borne by the borrower is 31%, equivalent to the DSTI ratio of 50%, taking into account a 3 p.p. increase in the index for agreements with a maturity of over 10 years (Table 1.3).

Table 1.3 • Example of equivalence between DSTI ratio with and without a 3 p.p. increase in the index

Maturity of the agreement	Interest rate = index + spread	Actual DSTI (without a 3 p.p. increase in the index)	DSTI (with a 3 p.p. increase in the index)
40	2%	31%	50%

Adopting a prudent approach and considering that, in particular, credit granted for housing purposes are typically very long-term, which heightens the uncertainty as to the evolution of income, Banco de Portugal recommends that, in the calculation of the DSTI ratio denominator, a reduction of at least 20% of current annual income be applied in the case of a borrower aged 70 and over at the planned expiry of the agreement, except if at the time of the creditworthiness assessment the borrower is already retired.

Hence, in the event the agreement only has one borrower and assuming a reduction in income of at least 20%, the income (Inc_DSTI) to be considered for calculating the DSTI ratio results from a weighted average, as described in the formula below:

$$Inc\_DSTI = x1 * Inc + x2 * Inc * (1 - \alpha)$$

Where:

Inc = Current monthly net income of the borrower; x1 = number of years during the period of the agreement when the borrower is aged 70 or under divided by the number of years of the agreement; x2 = number of years during the period of the agreement when the borrower is aged over 70 divided by the number of years of the agreement; $\alpha \geq 0.2$.[8]

As previously referred to, the value of the actual DSTI ratio for households will be lower, because it will be calculated based on the interest rates applied in the agreement. The actual DSTI ratio should allow for a margin that would make it possible to accumulate potential interest rate rises and / or income reductions in the future without negative consequences on the borrower's ability to service debt.

With regard to the maturity, the Recommendation establishes an upper limit of 40 years for agreements for housing loans and 10 years for consumption loans. Also, for credit granted for housing purposes it sets a gradual convergence towards an average maturity of 30 years by 2022. These limits have been defined in line with international guidelines, and in recognition of the importance of ensuring that the original maturity of loans allows some flexibility in case of default or difficulties in the payment of credit agreements.

Similarly to other macroprudential authorities in the European Union, Banco de Portugal has chosen to implement the limits to credit standards in the form of a Recommendation, to avoid market disturbances, which are difficult to forecast given the measure's innovative and complex nature. This notwithstanding, the Recommendation is subject to the 'comply or explain' principle, which means that the institutions concerned should comply with the set requirements and state the reasons if

8 As regards agreements with more than one borrower and in which information on aggregate income is only available for the group of borrowers, the age of the borrower with the earliest date of birth will be considered for the purpose of calculating the reduction in income.

they do not do so. In the event that the explanation is considered inadequate, Banco de Portugal may take other measures within its competences as the national macroprudential authority.

The limits introduced correspond to the applicable caps and as such do not replace these institutions' compulsory assessment of whether levels of the different indicators are suited for assessing each borrower's creditworthiness.

The Recommendation's communication policy involved the creation of a webpage on the macroprudential measure, summarising the set of macroprudential tools, information on the underlying legal framework, and documents supporting the Recommendation.[9] Finally, a series of frequently asked questions (FAQs) and an information video are also available on this webpage. Banco de Portugal has also provided clarification on the measure adopted to financial institutions, households and other central banks.

Banco de Portugal has been monitoring the implementation of the Recommendation

In accordance with the Recommendation, Banco de Portugal will monitor the implementation of the established criteria at least once a year and monitor the evolution of credit excluded from the scope of the measure. Hence, in the months following entry into force of the Recommendation, Banco de Portugal interacted closely with major institutions in the Portuguese financial system, including institutions specialised in credit for consumption.[10] The purpose of these contacts with institutions was to gauge the degree of implementation and compliance with the Recommendation in the various distribution channels, clarify the information to be reported, check the suitability of advertising campaigns, as well as the involvement of the financial institutions' boards and risk committees in the monitoring of implementation of the Recommendation.

Contacts were also made with other credit institutions within the scope of the Recommendation to ensure convergence to the limits set out in this macroprudential measure.

9 For further details on the limits, see the associated information and documentation, available at: https://www.bportugal.pt/en/page/ltv-dsti-and-maturity-limits.

10 A sample of 13 institutions representing around 93% of new household credit business.

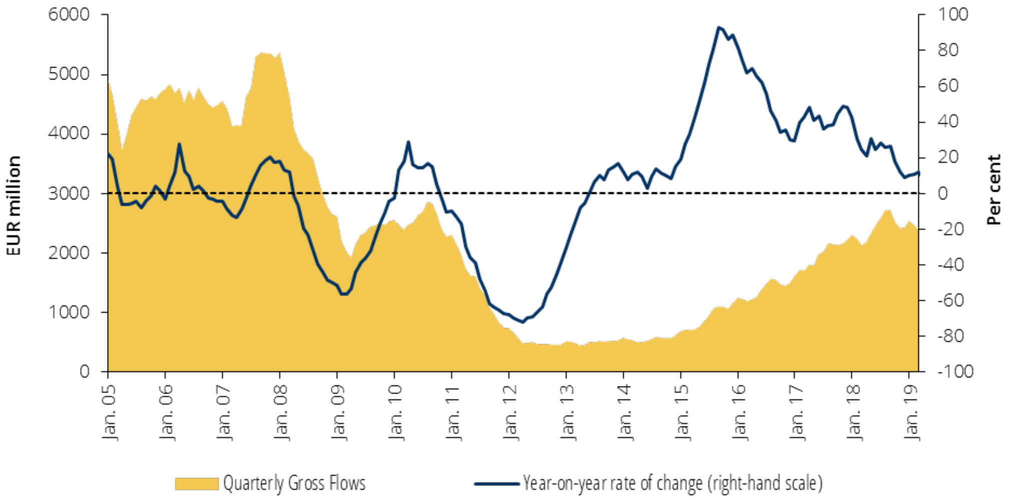
2 Assessment of the degree of implementation of the Recommendation

With the purpose of assessing the degree of implementation of the Recommendation, Banco de Portugal asked the 13 institutions mentioned for a self-assessment report on the implementation of the Recommendation covering credit granted between 1 July 2018 and 31 January 2019. This report, previously approved by the Board of each institution, was submitted in early February 2019, and information was also requested for the subsequent periods (February and March 2019). The analysis in this document is based, inter alia, on all quantitative and qualitative information collected from these institutions.

New loans to households have been slowing down in the second half of 2018 and early 2019

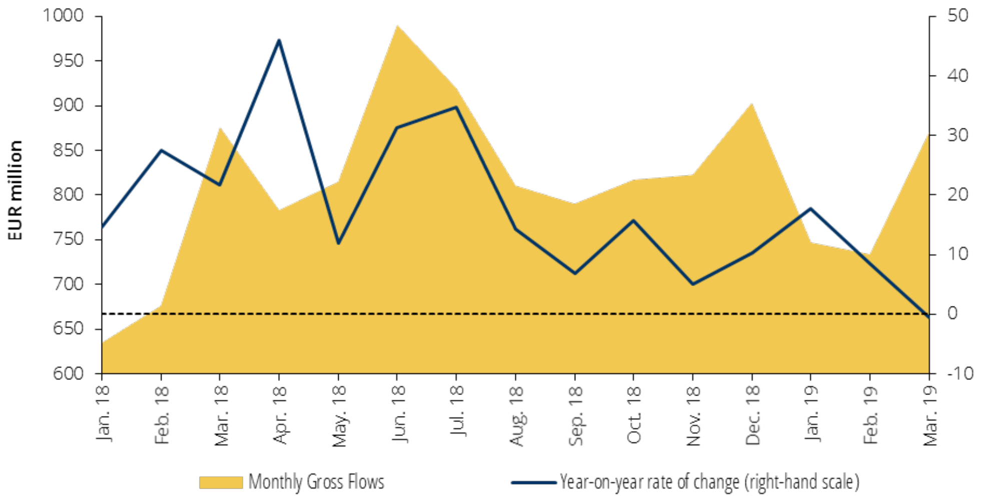
New housing loans have been slowing down, particularly in the second half of 2018 and early 2019 (Charts 2.1 and 2.2), remaining at a level well below that observed before the financial crisis. In fact, in the first quarter of 2019 compared with the same period a year earlier, the rate of change in the cumulative monthly flow of new business was 7.5%, compared to around 28% in June 2018 from June 2017.

Chart 2.1 • New housing loans - Quarterly flows



Source: Banco de Portugal. | Notes: The latest observation is for March 2019. New operations performed by monetary financial institutions resident in Portugal with residents in the euro area. Solo basis activity.

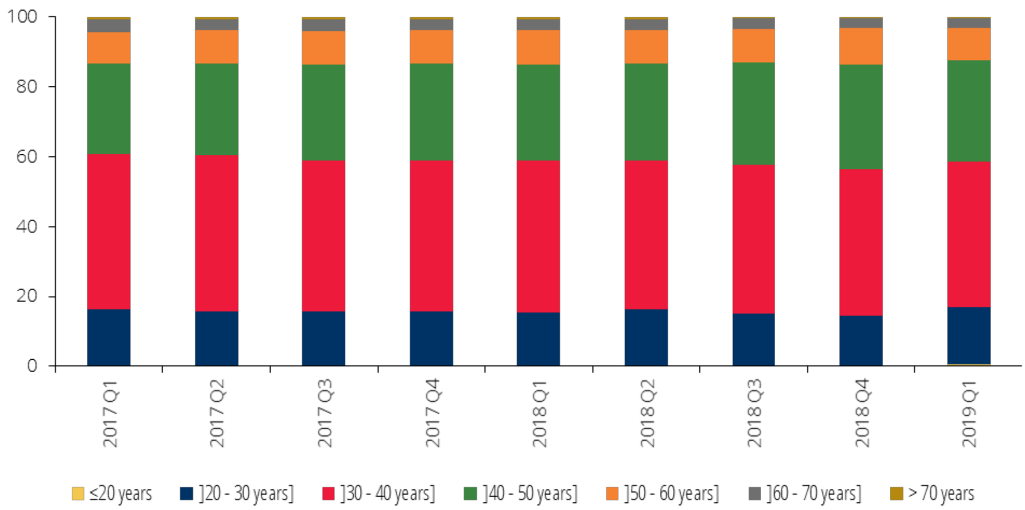
Chart 2.2 • New housing loans - Monthly flows



Source: Banco de Portugal. | Notes: New operations performed by monetary financial institutions resident in Portugal with residents in the euro area. Solo basis activity.

According to the data reported in the institutions' self-assessment reports, in the period from January 2017 to March 2019 there were no significant changes in the distribution by borrower age of new housing loans. Credit granted for housing purposes remained in general more concentrated in the 30-40 age range and residual below 20 years and over 70 (Chart 2.3). In particular, the trend in granting this credit to borrowers aged 20-30 moved in line with developments in credit granted to the other age groups.

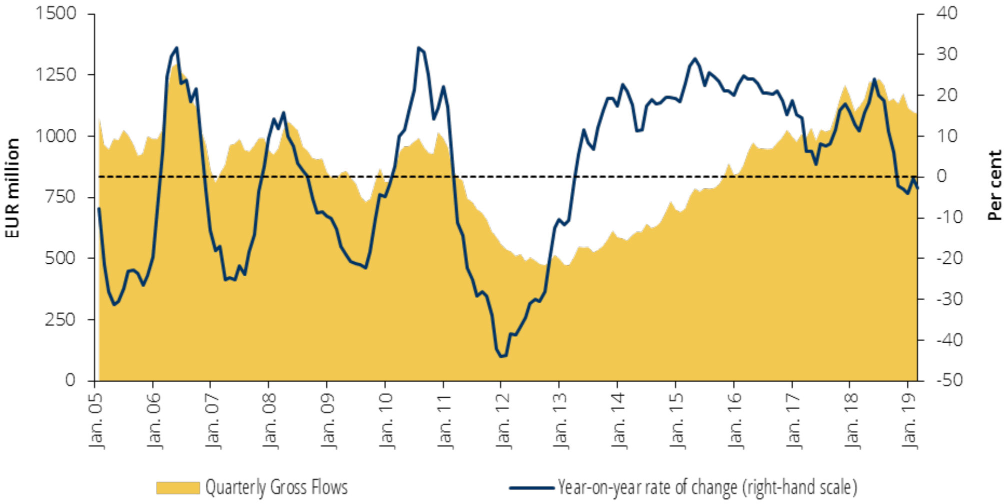
Chart 2.3 • New housing loans by age of borrowers | Per cent



Source: Banco de Portugal. | Notes: Based on the self-assessment reports

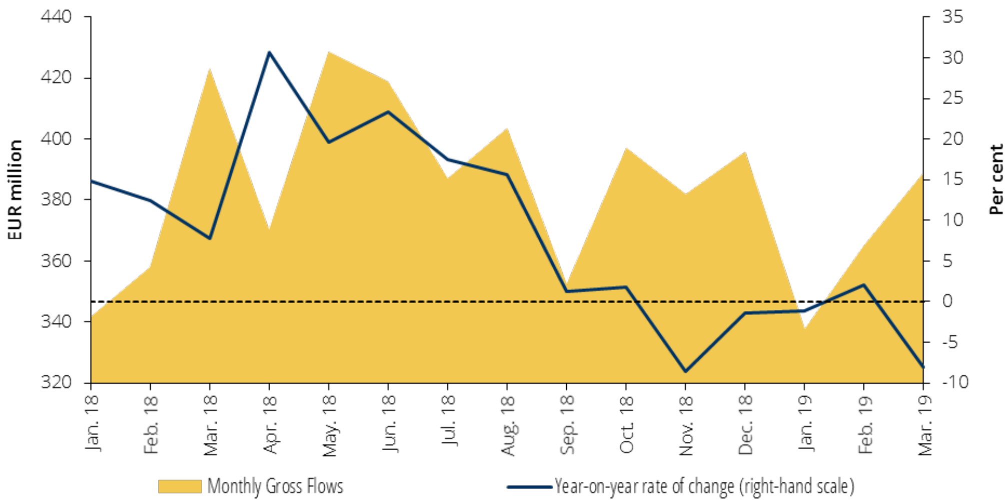
New consumption loans also slowed down in the second half of 2018 and in the first few months of 2019, with virtually nil year-on-year growth rates between September 2018 and the first quarter of 2019 (Charts 2.4 and 2.5). With regard to personal and car loans, following a prolonged period of growth, year-on-year rates of change were low or negative respectively between December 2018 and February 2019 (Chart 2.6).

Chart 2.4 • New consumption loans - Quarterly flows



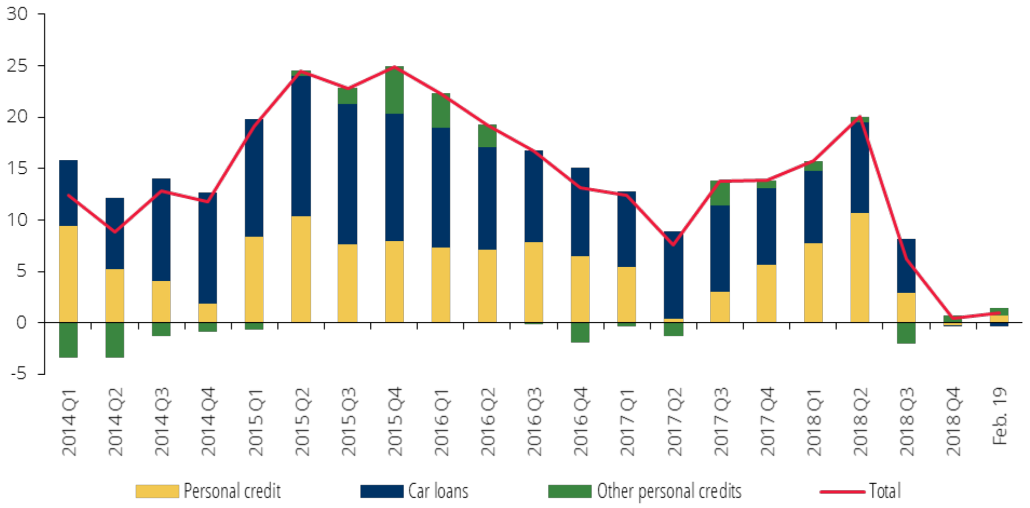
Source: Banco de Portugal. | Notes: The latest observation is for March 2019. New operations performed by monetary financial institutions resident in Portugal with residents in the euro area. Solo basis activity.

Chart 2.5 • New consumption loans - Monthly flows



Source: Banco de Portugal. | Notes: New operations performed by monetary financial institutions resident in Portugal with residents in the euro area. Solo basis activity.

Chart 2.6 • New personal loans, car loans and other personal credit - Year-on-year rate of change | Per cent



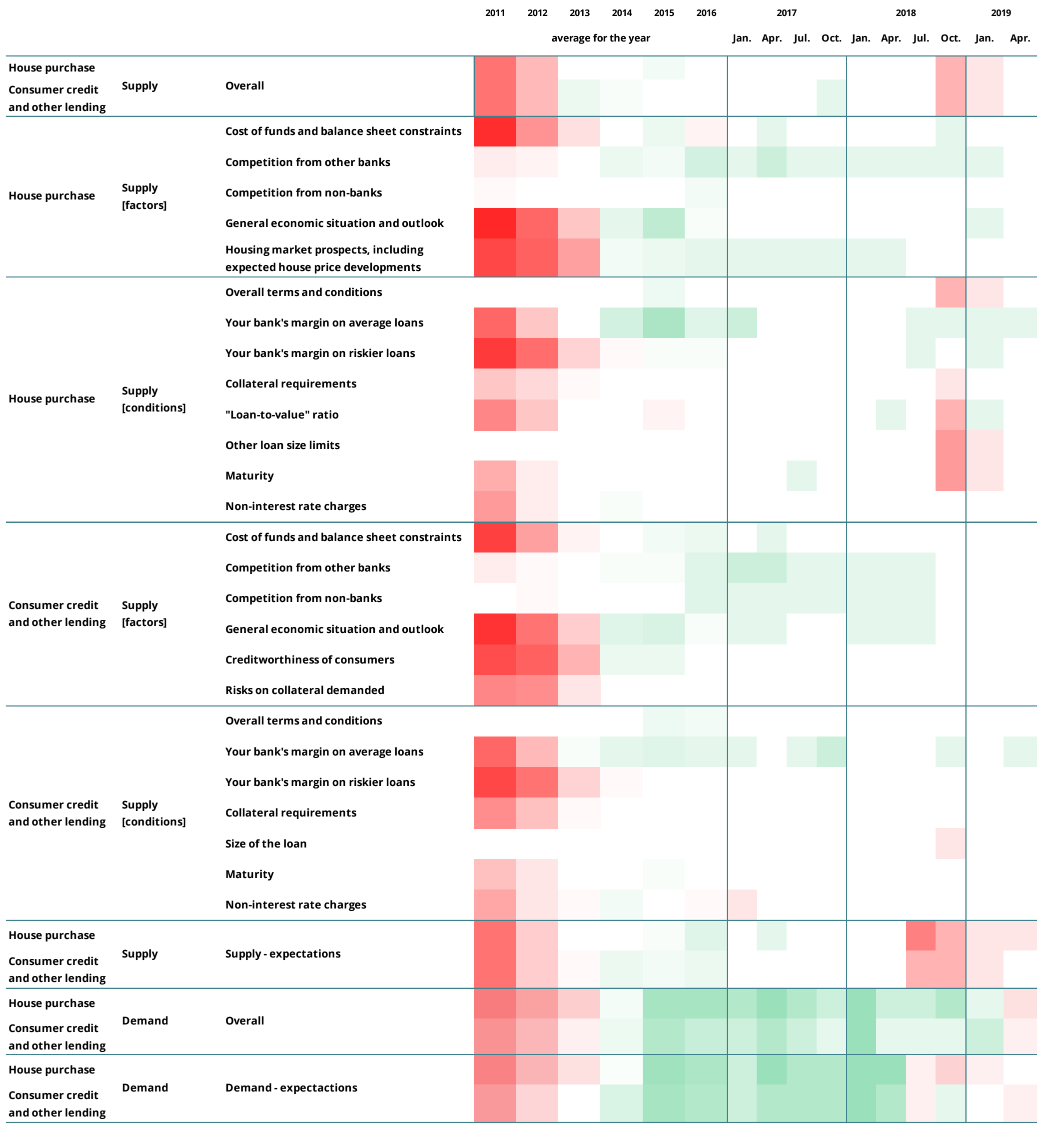
Source: Banco de Portugal. | Note: Car loans are granted for the purchase of cars or other motor vehicles, new or used. Personal credit is granted for the acquisition of goods and services, such as house equipment, education or health services. This type of credit may also be granted without a specified purpose.

Credit standards for loans to households related to the macroprudential measure appear to have become tighter

Overall, the implementation of the Recommendation seems to have improved borrowers' creditworthiness assessment by institutions, given that it has set harmonised minimum criteria for credit agreements. For a number of institutions, the criteria set out in the Recommendation are supplemented with previously applied criteria, such as income net of expenditure. Furthermore, for the vast majority of institutions, where any of the criteria set out in the Recommendation is not met, the credit application is escalated up the decision-making process, as a means to monitor the limits and the exceptions laid down by Banco de Portugal. This change has sometimes been accompanied by warning mechanisms when credit assessment does not observe the limits recommended by Banco de Portugal.

The criteria for granting credit to households, related to the macroprudential measure, became more restrictive. Institutions partially anticipated the entry into force of the Recommendation as far as credit standards were concerned. In July 2018 most institutions that participate in the Bank Lending Survey predicted tighter credit standards for households. As expected, in the October 2018 survey regarding household credit, most institutions reported tighter credit standards applied to household loans in the third quarter, both in housing and consumption loans. The main factor indicated by banks to explain the tighter credit to households was compliance with the macroprudential measure applied by Banco de Portugal to new credit agreements relating to residential immovable property and consumer credit agreements.

Table 2.1 • Bank Lending Survey - Results for Portugal on loans to households

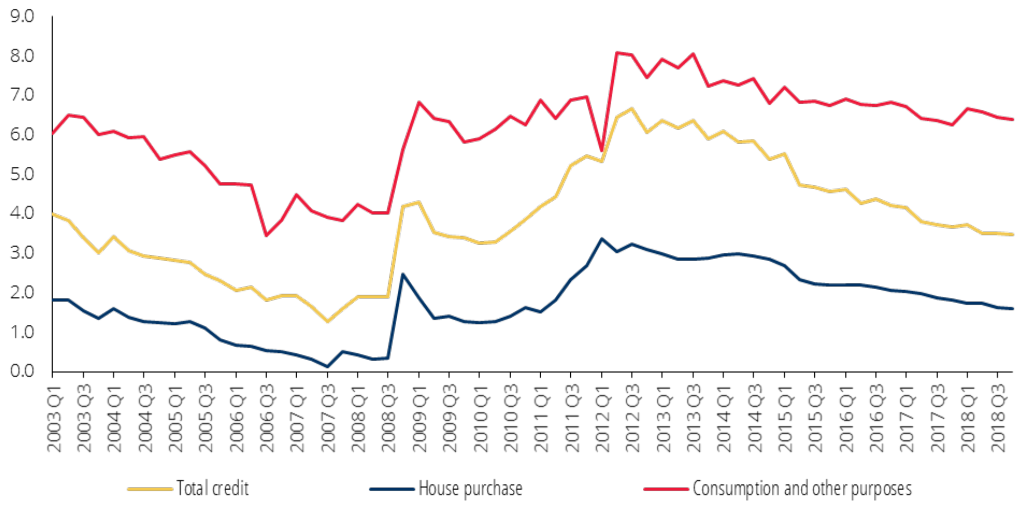


Source: Banco de Portugal. | Note: Red represents tighter credit standards or a greater fall in demand, while green represents the opposite.

Regarding the terms and conditions of credit granted for housing purposes, institutions reported changes towards stricter collateral requirements, the LTV ratio and other limits to amount and maturity. In the last three months of 2018 and the first three months of 2019, credit standards remained broadly unchanged, with only a few banks reporting tighter standards. This stabilisation was observed for both housing loans and credit for consumption and other purposes. In addition, according to this survey, in the first quarter of 2019 demand for credit for house purchase declined somewhat, due to the macroprudential measure.

As regards spreads, which are not the purpose of this macroprudential measure, comparing the second half of 2018 to the first half, there was a slight decline in spreads applied to housing loans and credit for consumption and other purposes, continuing the trend observed since 2012 (Chart 2.7).

Chart 2.7 • Spreads on household loans | Percentage points



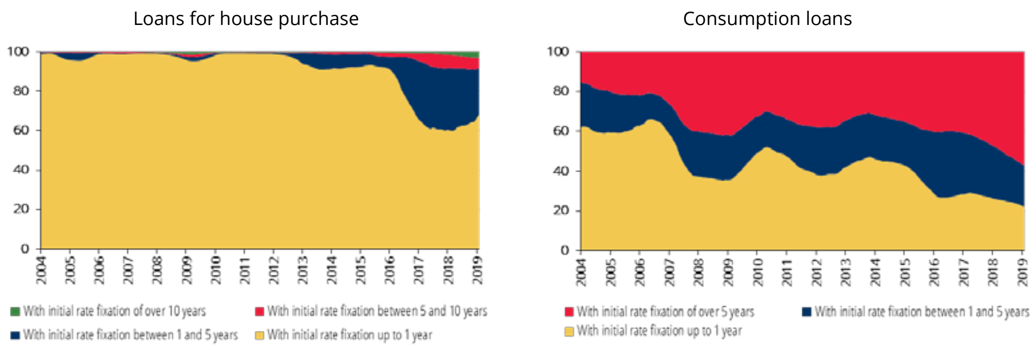
Source: Banco de Portugal. | Notes: New operations performed by monetary financial institutions resident in Portugal with residents in the euro area. Solo basis activity.

The supply of credit products to households underwent some changes

The mortgage market predominantly comprises variable-rate agreements, although variable-rate credit has continued to lose importance. Since 2016 the share of loans with an initial rate fixation period of over one year has been increasing, and in 2017 loans granted with an initial rate fixation period of over ten years rose more significantly (Chart 2.8).

In the case of consumption loans, the share of loans with an initial rate fixation period of less than one year has been declining since 2017, while the proportion of loans with an initial rate fixation period of over five years rose considerably. If the difference between total loans granted and loans granted with an initial rate fixation period of up to one year is considered as a proxy for fixed-rate loans or loans with a longer fixation period, it can be concluded that this interest rate regime – that makes borrowers less exposed to interest rate rises – tends to gain more weight.

Chart 2.8 • Structure of new credit to households broken down by interest rate fixation period - Annual flow| Per cent



Source: Banco de Portugal. | Notes: The latest observation is for March 2019. New operations performed by monetary financial institutions resident in Portugal with residents in the euro area. Solo basis activity.

A few changes were also seen in the supply of credit products to households, namely the increase in the supply of products with rate fixation during the whole term of the agreement, as well as the withdrawal from the market of products with a grace period for principal or interest and maturities of over 40 years.

There is convergence towards the limits set out in the Recommendation and improvement in the borrowers' risk profile

As already mentioned, the Recommendation aims at preventing the build-up of risks within the financial system, avoiding unsuitable credit granting practices as regards households and limiting credit granting to borrowers with a higher risk profile. Hence, it is important to analyse the evolution of the borrowers' risk profile so as to gauge the effectiveness of the Recommendation.

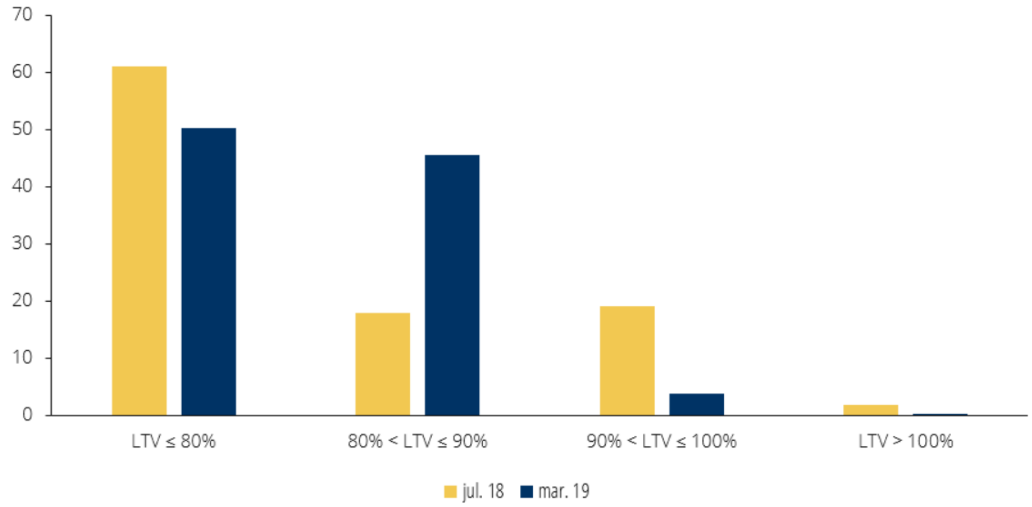
The first few months of implementation of the macroprudential measure were affected by credit business for which the borrower's creditworthiness assessment was carried out prior to its entry into force. This was particularly evident in credit granted for housing purposes, for which the period between the creditworthiness assessment and the release of funds is longer than for consumption loans. Hence, as at July 2018, also due to some difficulties involved in the Recommendation's operational implementation by the institutions, credit agreements were mostly based on solvency criteria that did not coincide with those established in the Recommendation. Therefore, data for July 2018 are used as a starting point to assess the evolution of the borrower's risk profile throughout the period under review.

With the introduction of the Recommendation, the LTV ratio seems to have become stricter, to the extent that total credit granted now depends on the minimum between the purchase price and the appraisal value. For instance, prior to the implementation of this measure, it was standard practice among institutions that the cap for the LTV ratio for own and permanent residence stood between 80% and 90% of the appraisal value. However, given that the appraisal value is generally higher than the purchase price there was a considerable share of credit financed at 100% of the purchase price. In addition, the values of the indicators applied by the institutions tended to converge towards the limits established in the Recommendation. With regard to the limits to the

LTV ratio, there was a substantial reduction in credit granted with higher LTV ratios (Chart 2.9). In March 2019 there was in fact a considerable decrease from July 2018 in new housing loans with an LTV ratio of between 90% and 100%.

With regard to credit for permanent residential property, in July 2018 more than 20% of credit granted for this purpose was associated with an LTV ratio of more than 90%. In March 2019 this share declined to less than 1%. This reduction is particularly significant taking into account that credit for own and permanent residence corresponds to around 70% to 80% of total credit for house purchase for the 13 institutions under review, taking the mentioned period as reference. The segment of housing loans for other purposes also showed a convergence trend: whereas in July 2018, 17% of total new housing loans for other purposes showed an LTV ratio above 80%, in March 2019 this share declined to 5%. The usual justification for overrunning is the existence of other guarantees associated with the agreement and the borrowers' creditworthiness. Finally, housing loans for purchasing immovable property held by the institutions themselves or property financial leasing agreements, with low relative significance in total new loans to households, recorded more volatile developments, influenced by the low number of operations of this type.

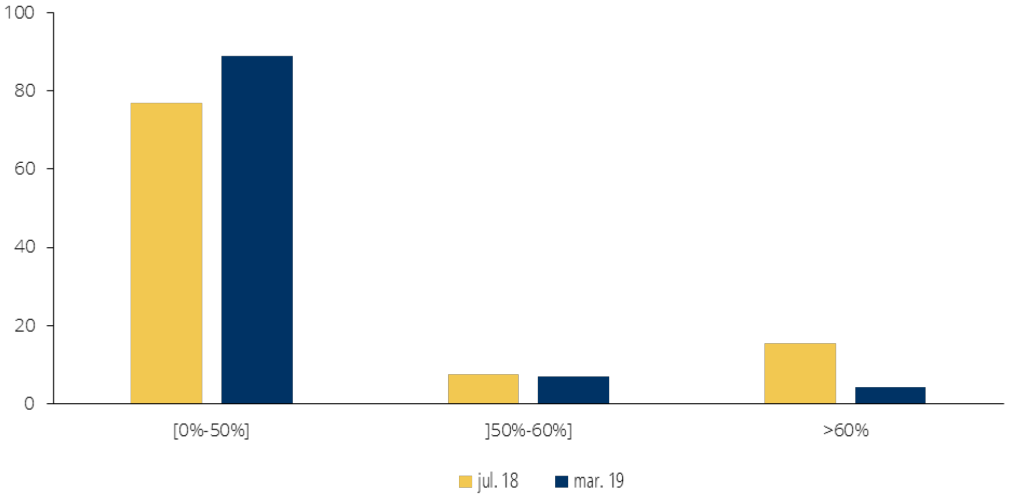
Chart 2.9 • Distribution of new housing loans by LTV ratio | As a percentage of total housing loans



Source: Banco de Portugal. | Note: Based on the self-assessment reports.

In March 2019 around 89% of new household loans was granted to borrowers with a DSTI ratio of 50% or less, with a 12 p.p. increase from July 2018. There was also a significant convergence towards the 5% exception limit established for credit with a DSTI ratio of over 60%. In fact, the share of household loans with a DSTI ratio of over 60% declined from 16% to around 4% between July 2018 and March 2019 respectively, the latter according to the 5% exception established (Chart 2.10). A breakdown of housing and consumption loans shows that both in the former (4.6% in March 2019) and in the latter (3.4% in March 2019) the limit to the DSTI ratio is already within the boundaries established. Furthermore, in March 2019 only 7% of new household loans was granted to borrowers with a DSTI ratio of 50% to 60%, which is much lower than the exception established in the Recommendation (20%).

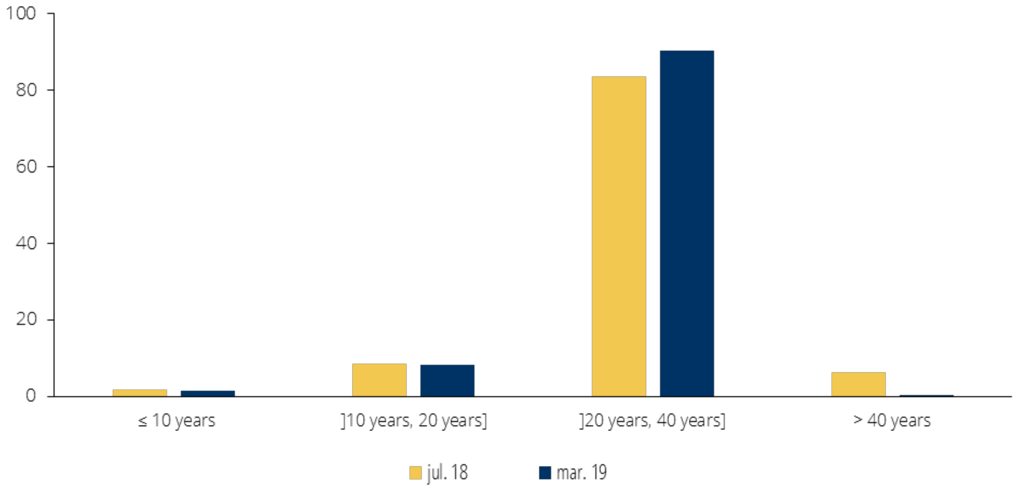
Chart 2.10 • Distribution of new household loans by limit to the DSTI ratio | As a percentage of total credit



Source: Banco de Portugal. | Note: Based on the self-assessment reports.

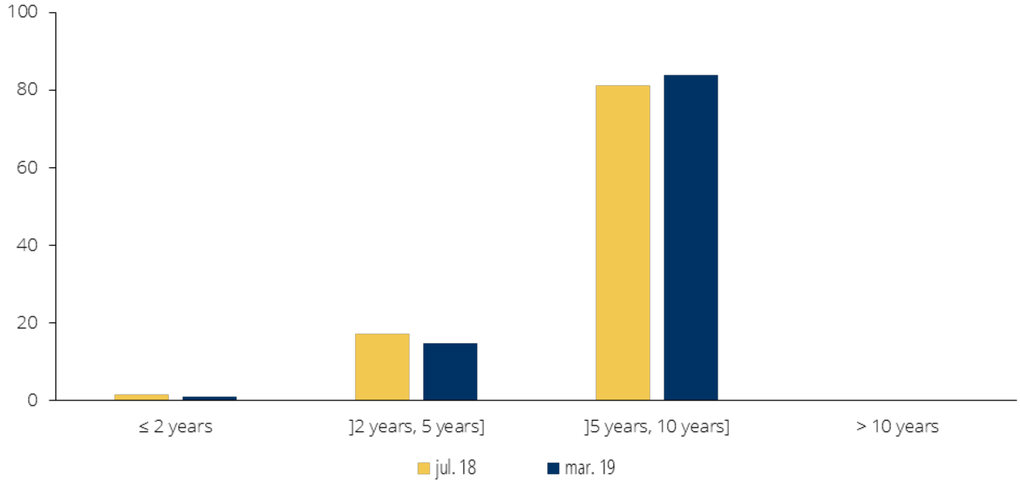
Limits to maturity are generally observed in the two types of credit under review (Charts 2.11 and 2.12), with the average maturity declining, especially in credit granted for housing purposes. In effect, in July 2018 the average maturity of new housing loans was 33.5 years, while in March 2019 it was 32.7 years. The Recommendation sets out convergence of credit granted for housing towards an average maturity of 30 years by 2022.

Chart 2.11 • Distribution of new housing loans by maturity interval | As a percentage of total housing loans



Source: Banco de Portugal. | Note: Based on the self-assessment reports.

Chart 2.12 • Distribution of new consumption loans by maturity interval | As a percentage of total consumption loans



Source: Banco de Portugal. | Note: Based on the self-assessment reports.

Finally, with regard to the regular payments requirement, a high degree of compliance with the Recommendation is observed, with approximately 3% of total credit granted not complying with this requirement as at July 2018 and only about 5% as at March 2019. Most of the explanations presented by institutions involves the granting of bridging loans (loans with only capital drawdowns).

According to the self-assessment reports, from among the limits set out in the Recommendation, institutions consider the DSTI ratio, particularly as regards the 60% limit, the tighter criterion, followed by the LTV ratio, particularly as regards the use of the minimum between the purchase price and the appraisal value.

The analysis shows that in general institutions are converging towards the limits set in the Recommendation, with the use of exceptions having been scrutinised by Banco de Portugal. In this vein, the exceptions set forth in the Recommendation for the DSTI ratio are not being exceeded, with only a small share of the exception in the case of the DSTI ratio of 50% to 60% used. The LTV ratio is also converging to a large extent towards the various limits according to purpose, with some exceedance of low relative significance for total housing loans with the respective justifications being scrutinised. A common justification for these cases is the existence of other guarantees associated with the agreement and the borrowers' creditworthiness. The same conclusions may be drawn for limits to maturity both for housing and consumption loans. Finally, justification for loans not meeting the requirement of regular payments of interest and capital was frequently the fact that they were bridging loans.

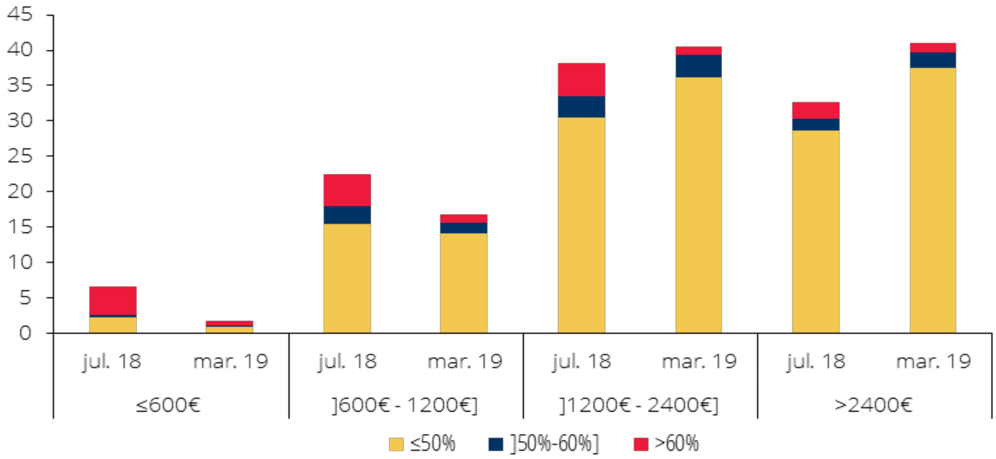
Similarly to the output from other analyses,[11] households with a higher income level have a higher share of housing loans, while lower-income households have a higher share of consumption loans.

Between July 2018 and March 2019 there was a considerable decline in household loans with a DSTI ratio of over 60% in all brackets of the net monthly income of borrowers. In addition, there is a relative increase in new household loans for borrowers with a net monthly income of more than €1,200 and a DSTI ratio of 50% or less (Chart 2.13). These developments largely reflect

3 For further details, see: https://www.bportugal.pt/sites/default/files/anexos/pdf-boletim/ref_nov12_e.pdf

developments in this credit's new business. Hence, implementation of the Recommendation seems to have helped change credit standards, thereby reducing the share of credit granted to borrowers combining a higher risk profile (DSTI ratio above 60%) with lower monthly net income. This change both in housing and consumption loans was gradual and continuous from July 2018 to March 2019.

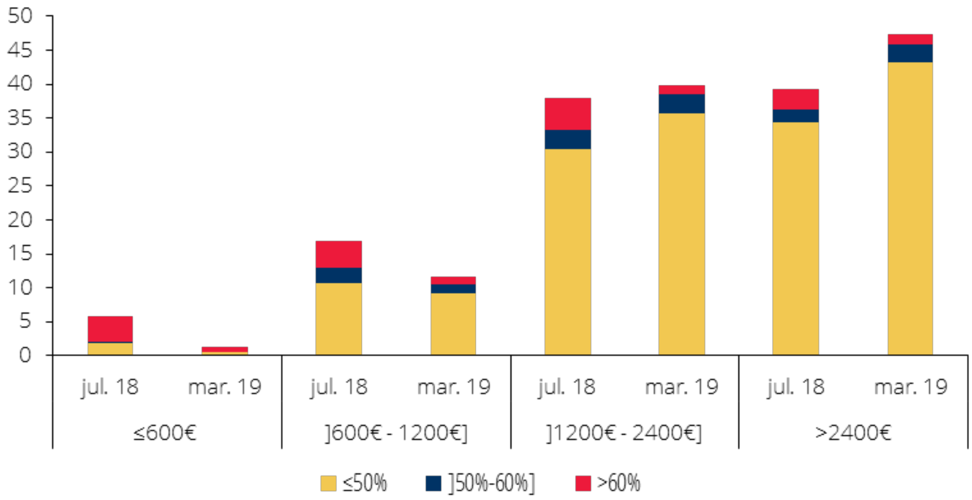
Chart 2.13 • New household loans by interval of DSTI ratio and net monthly income of borrowers | Per cent



Source: Banco de Portugal. | Note: Based on the self-assessment reports

From July 2018 to March 2019 there was a decline in the concentration of housing loans among borrowers with net monthly income below €1,200 and a DSTI ratio over 60% (Chart 2.14). In March 2019 there was thus a greater concentration of housing loans for those with higher net monthly income and a DSTI ratio from 30% to 40%.

Chart 2.14 • New housing loans by interval of DSTI ratio and net monthly income of borrowers | Per cent

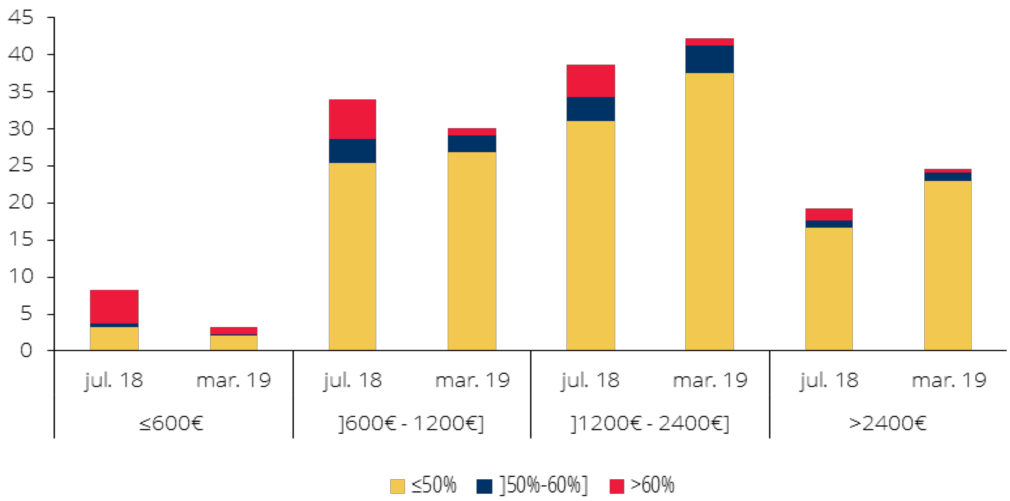


Source: Banco de Portugal. | Note: Based on the self-assessment reports.

In turn, in the consumption loan segment there was also a significant decline in the concentration of credit granted with a DSTI ratio over 60%, overall, in all income brackets (Chart 2.15). In July 2018 around 24% of credit for consumption was granted to borrowers with a DSTI ratio above 50%, this share declining considerably to around 11% in March 2019.

From July 2018 to March 2019 there was an increase in new consumption loans with a DSTI ratio of 50% or less and for net monthly income above €1,200. Similarly to July 2018, new consumption loans continued to be concentrated in the net monthly income brackets between €600 and €2,400. Therefore, there seems to be evidence of a change in household credit standards, with a lower concentration of credit among borrowers with riskier profiles.

Chart 2.15 • New consumption loans by interval of DSTI ratio and net monthly income of borrowers | Per cent



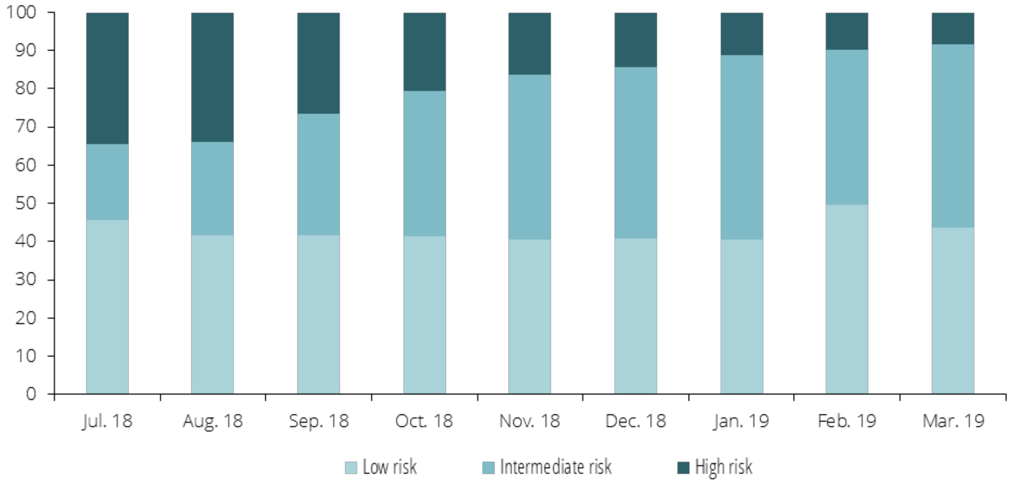
Source: Banco de Portugal. | Note: Based on the self-assessment reports.

Given that the DSTI ratio is a key indicator to assess the borrower's capacity to service debt and the LTV is an indicator that is directly related to losses for the financial system, in the event of default the combination of these two indicators makes it possible to further analyse the risk profile of housing credit borrowers.

Chart 2.16 shows the different risk categories, with different shades according to the combination of levels of these two indicators. High risk loans (in the darkest shade) have been identified as agreements that are simultaneously characterised by an LTV ratio above 90% and whose borrowers have a DSTI ratio above 60%. Loans classified in the next category of intermediate risk (identified with the intermediate shade) were defined as the agreements with an LTV ratio over 80% and of 90% or less and a DSTI ratio of over 50% and of 60% or less. Agreements with an LTV ratio of 80% or less and a DSTI ratio of 50% or less (lightest shade) show the lowest risk.

The chart analysis shows a gradual improvement in the risk profile of housing credit borrowers between July 2018 and March 2019 (Chart 2.16), considering the combination of the DSTI and LTV ratios. This improvement is evident from the analysis of developments in the share of credit representing the greatest risk. From July 2018 to March 2019 the share of loans with a high risk profile declined from 35% to 9%, offset by an increase in the share of housing loans granted to borrowers with an intermediate risk profile. In March 2019 around 48% of total new housing loans was concentrated in the intermediate risk profile, which is an increase of 28 p.p. from July 2018. There was also a reduction in the share of lower-risk credit, but of only 2 p.p., in contrast with the 26 p.p. drop in high-risk credit.

Chart 2.16 • Borrowers' risk profile in new housing loans | Per cent



Source: Banco de Portugal | Note: Based on the self-assessment reports. Low risk: DSTI≤50% and LTV≤80%; Intermediate risk: 50%<DSTI≤60% and 80%<LTV≤90%; High risk: DSTI>60% and LTV>90%.

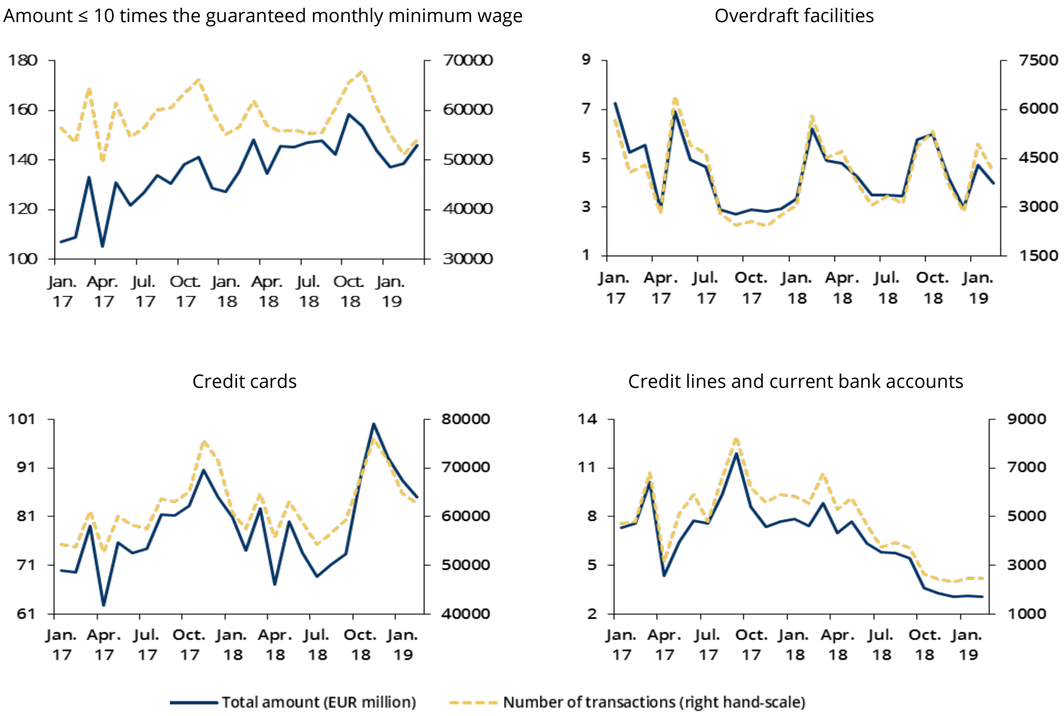
Overall, it can be concluded that a higher share of credit is granted to borrowers with a lower DSTI ratio and a lower LTV ratio, thus increasing institutions' resilience to a possible deterioration of economic conditions. In turn, a decline can be expected in the institutions' potential losses given a reduction in the price of real estate collateral, which also mitigates the risk of the borrowers' net worth reaching negative territory. As can be seen from Figure 1.1, this improved risk profile of households also has a positive effect on the risk profile of the institutions' credit portfolio, thus increasing their resilience to adverse shocks that may jeopardise the borrowers' debt servicing capacity.

As already mentioned, limits to maturity have been complied with since the entry into force of the Recommendation, with the share of total credit granted with a DSTI ratio over 60% and a maturity of more than 40 years standing at 0.4%, in July 2018, being inexistent in March 2019. In turn, in March 2019, as regards the distribution of the DSTI by maturity class, there was a greater credit concentration for the DSTI ratio between 20% and 50% and maturities between 20 and 40 years (around 49% of total credit granted). Around 96% of credit was granted at maturities lower than 40 years and a DSTI ratio of 60% or less.

No significant changes were identified in the pattern of new household credit excluded from the scope of the Recommendation

Credit excluded from the scope of the Recommendation should be monitored so as to infer whether the measure's effectiveness is being reduced due to this type of credit being granted. Therefore, an analysis was conducted of the evolution of low-amount credit (equal to or lower than the equivalent to tenfold the guaranteed monthly minimum wage), credit in the form of overdraft facilities, credit in the form of credit cards and also credit in the form of credit lines and current accounts.

Chart 2.17 • Credit excluded from the scope of the Recommendation



Source: Banco de Portugal | Note: Based on the self-assessment reports and Instruction No 14/2013.

Overall, no significant changes were identified in the pattern of granting of credit not covered by the Recommendation.

3 Conclusion

The analysis in this report shows that the limits established in the Recommendation are appropriate and effective in the compliance with the objectives set. More specifically, on the one hand, they promote the resilience of financial institutions by applying suitable credit standards for households that mitigate the build-up of systemic risk. On the other hand, they ensure households' access to sustainable financing. In addition, in a context of expansion of the residential property market, the design and calibration of the macroprudential measures in the Recommendation will tend to reduce the potential risk of feedback loops developing between credit granted domestically and house prices.

The recommended limits are expected to continue to be a permanent feature of the household credit market. However, it might be necessary to occasionally recalibrate a few parameters in response to economic or market developments. At the moment, taking into account this report's conclusions, in particular that the design of the Recommendation seems to be allowing the objectives set to be achieved, the limits to the LTV and DSTI ratios and the maturity, as well as the exceptions to these limits and the requirement of regular payments of interest and capital, will remain unchanged until the new assessment, which will take place in the first quarter of 2020.

Banco de Portugal will also continue to monitor the implementation of the Recommendation by the institutions covered, so as to prevent potential distortions of competition or actions that may jeopardise the Recommendation's effectiveness.