

Template for notifying intended measures to be taken under Article 458 of the Capital Requirements Regulation (CRR)

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1. Notifying national authority and scope of the notification	
1.1 Name of the notifying authority	National Bank of Belgium
1.2 Categorisation of measures	<p>The NBB intends to make use of Article 458(2) (d) (vi):</p> <p>risk weights for targeting asset bubbles in the residential and commercial property sector.</p> <p>In May 2014, a macroprudential measure consisting of a 5 percentage-point risk weight add-on for IRB banks on Belgian mortgage loan exposures to residential real estate was introduced on the basis of Art. 458 CRR. This measure was extended in May 2016 until 28 May 2017. The NBB subsequently issued a recommendation to the Belgian IRB banks to maintain prudent credit conditions and keep capital conform to the 5 pp risk weight add-on.</p> <p>The proposed new measure replaces the 5 pp RW add-on measure that expired in May 2017 (and the subsequent NBB recommendation). It consists of two components. The first one imposes a 5 percentage-point risk weight add-on for IRB banks' exposures to Belgian mortgage loans and complements it with a second, more targeted component, further increasing the risk weights in line with the risk profile of the bank's mortgage portfolio (by applying a multiplier on the risk weight of the residential mortgage loan portfolio). This more elaborate measure therefore amounts to an overall increase in the risk weights and capital held for real estate exposures while at the same time targeting more explicitly the riskier loan portfolios, thereby discouraging excessive risk-taking.</p> <p>Despite existing prudential requirements, additional macroprudential measures, securing sufficiently large 'capital buffers' and mitigating excessive risk-taking, are required in view of the large and persistent share of riskier mortgage loans extended by IRB banks in Belgium in the context of intensifying household credit risk-taking, reflected in the continuing trend-wise rise in household indebtedness, and sustained residential real estate price increases.</p>

<p>1.3 Request to extend the period of application of existing measures for one additional year (Article 458(9) of the CRR)</p>	<p>No extension is requested. The proposed measure is a new measure replacing the previous (now expired) macroprudential measure consisting of a 5 percentage-point add-on for risk weights for domestic residential real estate exposures of Belgian IRB banks.</p>
<p>1.4 Notification of measures to which Article 458(10) of the CRR applies ('notification only procedure')</p>	<p>Art. 458 (10) does not apply for this measure. Taking into account the total effect of the proposed measure, the impact for the IRB banks concerned is, on average, more than 25% of the risk weights.</p>
<p>2. Description of the measure</p>	
<p>2.1 Draft national measures (Article 458(2)(d) of the CRR)</p>	<p>The proposed measure consists of two parts.</p> <p><u>The first part of the measure</u> consists of a general risk weight add-on of five percentage points for IRB banks' retail exposures secured by immovable property situated in Belgium (EAD_i). The increase in the risk-weighted assets for bank i, ΔRWA_i, is therefore determined as follows:</p> $\Delta RWA_i = 5\% * EAD_i \quad (eq. 1)$ <p><u>The second part of the measure</u> provides an additional risk-sensitive element by targeting the risk profile of each (IRB) bank's (residential) mortgage portfolio. More specifically, this part of the measure determines the size of the (second) additional macroprudential RW add-on as a fraction (33%) of the microprudential risk weight on the (residential) mortgage portfolio, RW_{RRE,i}. The resulting additional RWA for bank i from this second component is thus determined as follows:</p> $\Delta RWA_i = (0.33 * RW_{RRE,i}) * EAD_i \quad (eq. 2)$ <p>After application of the proposed new measure, <u>the total risk-weighted assets</u> for IRB banks' retail exposures secured by immovable property situated in Belgium, will therefore be determined by :</p> $RWA_i = (1.33 * RW_{RRE,i} + 0.05) * EAD_i$ <p>The measure increases the overall RWAs of the bank and - given regulatory capital requirements – implies that additional capital is needed to meet these requirements. We refer to this additional capital as the additional capital buffers generated by the macroprudential measure.</p>
<p>2.2 Scope of the measure (Article 458(2)(d) of the CRR)</p>	<p>The measure applies to:</p> <ul style="list-style-type: none"> • retail exposures secured by immovable property for which the collateral (immovable property) is situated in Belgium; • IRB credit institutions. The measure focuses on IRB banks as their model-implied risk weights are relatively low, compared to those

	<p>implied by the standardised approach. Belgian banks applying the standardised approach (approximately 5% of the Belgian mortgage market) assign risk weights above 35% for higher LTV loan segments (average risk weight is 45%);</p> <ul style="list-style-type: none"> • both non-defaulted and defaulted exposures.
<p>2.3 Calibration of the measure</p>	<p>The proposed measure primarily aims at enhancing the resilience of Belgian IRB banks to potential (severe) downward corrections in residential real estate markets against the background of intensifying credit exposures of Belgian households and sustained price increases in real estate over the past years.</p> <p>The calibration of the proposed measure is therefore based on an assessment of credit losses under stress scenarios for the real estate market and aims at increasing banks' capital buffers sufficiently to maintain the shock-absorption capacity of the banking sector. Simulations include (i) a benchmark (severe) stress scenario consisting of a multiplication of the default rate by 5 and an increase in the LGD by 25 percentage points for each credit institution and (ii) complementing scenarios that additionally impose a minimum default rate per institution (through the introduction of floors on default rates of respectively 4% and 5%). These cases represent (conservative/severe) stress scenarios with increases in LGD exceeding the reported overvaluation (accounting for some overshooting in the event of a crisis) and the five-fold increase in PDs is comparable with developments in the Spanish housing market where default rates increased from 1% to about 5% in the course of 2013. The simulations on the basis of these scenarios indicate that the capital held for residential real estate exposures of IRB banks might on average not be sufficient to absorb potential losses in case of severe stress. Additional capital buffers may therefore be required to absorb such losses. The measure (multiplier) is calibrated such that the identified losses would on average be covered, while preserving continuity with the previous measure (5 pp RW add-on).</p> <p>The total impact of the proposed measure on IRB banks' CET1 capital is estimated at € 1,486 million, equivalent to approximately 2.9% of IRB banks' total CET1 capital on average. The breakdown of the total estimated impact according to the contribution of the two components implies a total CET1 impact of € 908 million due to the 5 percentage-point risk weight add-on and an additional impact of € 578 million (equivalent to 1.1% CET1 capital) for the second component. The measure pushes up the implied risk weights (on mortgage exposures) from 9.7 % to 17.9% on average, broken down into an increase of 5 and 3.2 percentage points for the first and second component of the measure, respectively. The substantial increase in risk weights for residential real estate exposures implies that the total impact of € 1,486 million CET1 capital corresponds to an 85% increase in the capital buffer compared to the microprudential CET1 capital requirements for this portfolio.</p>
<p>2.4 Suitability, effectiveness and proportionality of the measure (Article 458(2)(e) of the CRR)</p>	<p><i>The NBB considers that the new measure is necessary, suitable, effective and proportionate on the basis of a number of considerations.</i></p> <p><i>First, the proposed measure is intended to strengthen banks' resilience</i> against a potential severe downturn in the housing market by imposing a sufficiently strong capital buffer for residential real estate</p>

exposures. As mentioned before, the total implied macroprudential buffer is estimated to be around € 1,486 million, of which € 908 million is due to the 5 percentage-point add-on and € 578 million is generated by the second component. The need for an additional *macroprudential* buffer arises from the low microprudential risk weights applied to real estate exposures by IRB banks against a background of growing vulnerabilities at the macro level. The impact of a potential crisis at the macro level (including externalities and feedback loops) cannot be accurately reflected in the internal models given the macrofinancial nature of the vulnerabilities and especially given the fact that Belgium has not experienced a major real estate crisis in the recent past.

Second, through the targeted component (risk weight multiplier), the measure is intended to address the observed persistent build-up of credit risks in the retail mortgage market by incentivising a reduction in the share of loans with a high risk profile (risk weights).

Loan portfolios with higher risk weights are intrinsically more risky and would in general generate higher losses for banks in the event of a severe downturn in the Belgian residential real estate market. While the introduction of previous (macro)prudential measures and recommendations by the NBB initially induced Belgian banks to (somewhat) tighten their lending criteria for mortgage loans, the NBB still considers that the share of loans in riskier buckets remains too high and continues to support the build-up of credit risks in this market, both for banks and households. Indeed, while the bulk of the strengthening of credit standards in the past (in 2013 and 2014) occurred through the shortening of (very long) loan maturities, mixed signals are re-emerging from the relaxing of other credit standards (i.e. for LTVs, DSTIs and margins) from the more recent data vintages:

- ***No further improvement in LTV and DSTI values observed since 2015.*** There has been no recent reduction in the market share of “riskier loan segments”, i.e. loans combining, simultaneously, high LTV and/or DSTI values and/or maturity levels at origination. More recently, signs of some deterioration in these loan conditions have been observed.
- ***A renewed tendency to lengthen the loan maturity has been observed in 2017.*** While IRB banks had previously been shortening loan maturities (following earlier recommendations by the NBB), the most recent observations point to a renewed lengthening of the loan maturities. In particular, the loan segment with maturities longer than 20 years has been expanding.
- ***While banks had significantly increased their commercial margins from 2011, recent data show stabilisation (in 2015) and a substantial decrease (in 2016 and 2017) in commercial margins,*** which might stem from the intensifying competitive pressure within this market segment.

Regarding proportionality, the NBB considers the measure to be adequate as it introduces an additional element of incentive compatibility in the granting of mortgage loans and increases the overall resilience against the growing credit risk imbalances on the real estate market. This targeted measure should induce more prudent credit standards at origination, and, as a result, improve credit quality. The measure is moreover proportionate. Banks with better risk profiles and

higher credit quality are affected to a lesser extent by the measure.

This measure also addresses the November 2016 ESRB Warning, which was endorsed by the ECB's MPF in its press communiqué on 15 December 2016. In its Warning, the ESRB identified the main vulnerabilities for Belgium by explicitly referring to:

- “ the fast increase in overall household indebtedness combined with significant groups of already highly indebted households against the background of a significant increase in RRE prices over the past few years” and
- “At the same time, groups of households are highly indebted, with high DSTI ratios including for new loans ([...] almost 20% of new loans have a DSTI above 50%, and one-third of loans have LTV ratios above 90%)

Finally, the NBB considers the proposed measure as a necessary substitute for the previous (expired) macroprudential measure. While the introduction of the latter was certainly effective in building up IRB banks' resilience, it is no longer sufficient in view of their growing exposures and the discontinuation of credit standard tightening in recent years, especially in the riskier loan segments. The new measure not only raises the capital buffers in line with exposures, but it also incorporates for the riskier loan segments (higher risk weights) a signalling effect and potentially carries a stronger pricing impact than the previous measure. An empirical analysis of the impact of the previous measure performed by the NBB confirms the effectiveness of the previous measure in increasing resilience (reserving a larger part of CET1 capital), while, on average, having only a marginal impact on mortgage loan pricing. This small overall impact on loan pricing was consistent with the objective of the measure and its calibration. However, the results also suggest that the impact of the add-on on mortgage pricing (lending spreads) was heterogeneous across IRB banks, with banks that are more affected by the add-on increasing their loan pricing significantly more than the less exposed banks. Such heterogeneous effect provides support for the expectation that the additional risk-sensitive component of the measure would entail a stronger pricing effect for the specifically targeted riskier loan portfolios, especially for the more RRE-exposed IRB banks.

The NBB therefore considers the proposed measure, combining a 5 percentage-point risk weight add-on with a risk-sensitive capital add-on (risk weight multiplier) as necessary, suitable, effective and proportionate. It not only provides a sufficient capital buffer (securing resilience in the banking sector) in a severe downturn scenario but also introduces a behavioural component that further discourages excessive credit risk-taking by IRB banks. The latter component is instrumental in curbing the overall build-up of RRE credit risk which is fuelled by loose credit standards in the riskier loan segments. At the same time, the measure remains sufficiently targeted so that strong spill-overs to overall credit extension and, indirectly, to the real economy are not to be expected.

The measure will be regularly monitored and reviewed on the basis of its overall macroprudential (mitigating) impact on the observed build-up of systemic risks in mortgage and RRE markets. In line with Art 458 (4), the

	NBB will reconsider the calibration (or even the withdrawal) of the measure if a sustained reversal in the trend-wise build-up of these risks is observed. The developments in risk profiles (e.g. total risk weights, LTV, DSTI) as well as the overall coverage of banks' exposure to real estate risks and household leverage are important indicators in this evaluation. The capital buffers will be released, however, when banks start taking substantial losses in the context of residential real estate price corrections and rising defaults. The release modalities will be based on the specific market developments.
2.5 Other relevant information	/
3. Timing of the measure	
3.1 Timing of the Decision	30 April 2018
3.2 Timing of the Publication	30 April 2018
3.3 Disclosure	The NBB announced on November 21 st 2017 its intention to introduce a new macroprudential measure consisting of a 5 pp RW add-on and a multiplier of 1.33 for the microprudential risk weights of the Belgian mortgage portfolio.
3.4 Timing of Application (Article 458(4) of the CRR)	30 April 2018
3.5 Phasing in	No phasing-in is planned. The measure will be applied immediately to the entire Belgian (residential) mortgage loan portfolio.
3.6 Term of the measure (Article 458(4) of the CRR)	The measure is intended to be implemented for a minimum of two years and possibly renewed afterwards.
3.7 Review (Article 458(9) of the CRR)	The calibration and appropriateness of the measure will be reviewed on a yearly basis, with possible revisions of the overall measure implemented at renewal.

4. Reason for the activation of the stricter national measure

4.1 Description of the macro-prudential or systemic risk in the financial system (Article 458(2)(a) of the CRR)

Since the introduction of the first macroprudential measure, the NBB has been closely monitoring the developments on the Belgian real estate market, the sustainability of household indebtedness and the quality of banks' loan portfolios.

This monitoring indicates a further build-up of vulnerabilities and intensification of the risks in the medium term, mainly related to the persistent build-up of household indebtedness supported by relatively loose credit standards for the riskier loan segments, against the background of sustained increases in RRE prices in recent years.

Even though default rates on mortgage loans have remained fairly stable in the recent past and the housing market has slowed down somewhat, there may be important pockets of risks building up in some segments of this market, with potentially larger-than-projected loan losses in the future. The persistence of these vulnerabilities justifies the decision to introduce a new macroprudential measure which besides ensuring a build-up of sufficient capital buffers also targets the riskier loan segments more explicitly.

The conclusions above are based on a number of specific analyses detailed below:

Nominal property prices (for residential real estate) in Belgium have more than doubled since 2000, without experiencing any major price correction, while real prices increased by more than 50%. In comparison with other euro area countries, Belgian nominal property prices suffered smaller and less persistent corrections in the aftermath of the financial crisis. With an average year-on-year growth rate of 5.2% since 2000, the reference price index for residential real estate currently stands at the highest level recorded in nominal terms. This strong growth of nominal real estate prices has significantly outpaced general consumer price indices and pushed up the real price of residential real estate by more than 50%. Following the financial crisis, the growth rate of real estate prices became more volatile and slowed down somewhat. It had declined from 2011, reaching 0.7% in 2014. However, figures for 2015 pointed to a substantial pick-up in prices, with a 3.8% average increase, while again decelerating in 2016 to 0.9%. In 2017Q2, the year-on-year growth rate rose again to 2.6%.

Measuring over- or undervaluation in the residential real estate market remains difficult and subject to substantial uncertainty as the estimates crucially hinge on a number of assumptions underlying the model or benchmark being used as equilibrium level. Nevertheless, most of the benchmark valuation measures currently point to high valuations and some degree of overvaluation in the Belgian real estate market. The precise degree of such overvaluation differs significantly across valuation methods, however.

On the basis of widely used indicators such as price-to-income and interest-rate-adjusted affordability indicators, Belgium is usually flagged as a country with high valuation metrics in the residential real estate markets. For instance, the price-to-income ratio, which has gone up by more than 50% since 2000Q1, has reached historically high levels. Measured against the (expanding window) unconditional average, this would suggest an overvaluation of more than 25%. Affordability indicators, which correct the price-to-income measures for changes in interest rate conditions,

corroborate the assessment of high price levels. Although the unprecedented fall in mortgage interest rates observed since the financial crisis has brought down the debt service burden a little, affordability indicators currently stand at high values, suggesting some degree of overvaluation as well.

The NBB uses a model-based time-series approach to explain (real) house price developments based on a number of key determinants, including interest rates, real disposable income, characteristics of mortgage loans, the tax regime applicable to residential property and demographic developments. To the extent that these determinants are considered to reflect their (long-run) equilibrium value, the model's residuals can be used to assess over- and undervaluation in the Belgian residential real estate market. This type of model-based valuation measure is increasingly used in national and international organisations to assess over- or undervaluation of real estate markets. The results for the most recent period suggest materialisation of a certain degree of overvaluation, currently in the range of 0 to 10%. More precisely, the overvaluation was estimated at 11% at the end of 2015 before eventually falling to 6% in the second quarter of 2017. The significant reduction in the mortgage tax abatement in the Flemish Region in 2015 was in principle expected to lead to a strong drop in the (equilibrium) price, but, as indicated, price growth has actually picked up markedly following this measure.

The model-based overvaluation estimate is (as any other metric) not only subject to uncertainty. It is also conditional on the currently historically low interest rates, representing the equilibrium level of the interest rate in this type of model. Potential reversals in the medium term to a more normal interest rate level are not taken into account in the current model-based assessment of the over- or undervaluation of the real estate market. Therefore, in this context, and in addition to the measured overvaluation, a return to a higher interest rate environment and equilibrium would result in substantial downward price corrections towards a new equilibrium, consistent with higher interest rates. This underscores the importance of the current low interest rate environment in triggering search-for-yield behaviour (temporarily) supporting housing demand.

Finally, the above analysis does not preclude potential risks of severe house price declines stemming from unexpected changes in one or more explanatory factors (interest rates, tax regime, demographics, etc.) which would also significantly affect prices. Moreover, price corrections in the real estate market following such contingencies could be substantially larger than the estimated (over)valuations should any negative feedback loops occur that trigger (negative) overshooting of the equilibrium price. In its 2016 report on *Vulnerabilities in the EU residential real estate sector*, the ESRB includes Belgium among the countries with a (somewhat) greater likelihood of such a reinforcing spiral materialising (as a consequence of a subdued economic outlook or negative shocks).

Important price decreases for residential real estate could lead to important credit losses on banks' mortgage portfolios, given the following vulnerabilities:

First, resident banks continue to support and even expand mortgage lending to Belgian households. The growth rate of mortgage lending

remains high (around 5.4% in September 2017), after some slowdown over the period 2013-2014, and is well above the average growth recorded in the euro area (3.4%). While some acceleration in (mortgage) credit growth at the end of 2014 was expected in view of anticipated changes in the tax regime, the subsequent stabilisation of credit growth at a high level (above 5 % since 2015) was not expected and can be attributed to the low interest rate environment. As a result of this persistently high growth rate observed over recent years, mortgage loans constitute an increasingly important asset on banks' balance sheets. Total outstanding mortgage loans granted by Belgian banks to Belgian households grew from € 169 billion at the end of 2014 to € 194 billion at the end of September 2017. It now makes up approximately 18 % of the balance sheet.

Second, these developments have led to a gradual increase in the debt ratio of households which increased from 38.4% in 2002Q1 to 60.1% GDP in the second quarter of 2017 (and 55.3% in 2012), raising some concerns in terms of debt sustainability, especially for certain segments of the population (young, low-income). Belgium remains one of the countries with the strongest increases in household leverage since the financial crisis, compared to other euro countries where households have been deleveraging slightly since 2010. As a result of these diverging developments, Belgian households' debt ratio now exceeds the euro area average debt ratio and the difference is projected to widen further in the coming years.

Third, despite some previous tightening of lending conditions, the NBB considers that the proportion of loans in the riskiest segments is still too high – especially with regard to the share of new loans with high LTVs (>90%) which has oscillated around 30% in recent years. In addition, the tightening of credit standards observed in 2013-2014 came to a halt in 2015, 2016 and 2017:

- Recent developments in LTV ratios point towards a slowdown in the reduction of the share of high-LTV loans, with no further improvement in LTV values being observed in the 2015, 2016 and 2017 vintages. Given the still sizeable share of loans carrying a high LTV in new production (around 35% of the most recent vintages had an LTV above 90%), this is a point of particular concern. Average indexed LTV figures for 2017Q2 indicate that 15% (i.e. € 28 billion) of the total outstanding stock carried an indexed LTV above 90%. Therefore, adverse housing price developments could result in a fast evaporation of collateral buffers or a substantial deterioration of the collateral coverage for an important and growing part of the outstanding mortgage stock.
- While banks started to tighten access to mortgage loans with long maturities (i.e. over 20 years) in 2012 when the NBB first signalled its concerns over excessively loose credit conditions, they have recently reverted to extending loans with long maturities. Relative to 2012, the percentage of loans granted with a maturity of more than 25 (20) years dropped from almost 20% (44%) in production volumes to only 1.5% (29%) in 2016. Most recent data suggest the beginning of a reversal of this trend with the respective fraction increasing to 1.7% (35%).
- The cutback in supply of longer mortgage loan maturities did not initially lead to a concurrent upward pressure on DSTI ratios for borrowers. On the contrary, DSTI ratios improved between the 2012 and 2014 vintages, suggesting that banks had become more selective

	<p>in this aspect of their credit origination policies. However, specific developments (the decline in interest rates as well as a high volume of early redemptions) may have had a downward bias on the DSTI ratio for these vintages. No further improvement in figures was observed for the 2015 and 2016 vintages and the most recent data for 2017 even suggest a new increase in the DSTI ratio. One can therefore safely conclude that there has been no recent (additional) tightening of banks' DSTI policies. The share of new loans with borrowers reserving more than 50% of their (disposable) income thus remains high (more than 20% for the most recent production vintages).</p> <ul style="list-style-type: none"> • In line with the 2015 and 2016 developments in credit standards, there was no reduction in the relative share of the "riskier loan segments", combining high LTV and/or DSTI and/or maturity levels at origination, in the total mortgage loan stock. Nevertheless, the average IRB risk weight for mortgage loans (before taking the macroprudential measures into account) remained low in 2015 and 2016 (approximately 10 %). <p><i>Finally, based on an analysis of banks' business plans, banks expect sustained new mortgage lending in the coming years.</i></p> <p>In view of the low interest rate environment which puts pressure on banks to mitigate its impact on profitability, a widespread strategy of stepping up mortgage lending may intensify competition between the main credit institutions. Stronger competition could trigger increased risk-taking, i.e. a further easing of credit standards in the form of lower commercial margins or laxer LTV and/or DSTI constraints. In view of identified vulnerabilities, and without further mitigating measures, such behaviour could undermine banks' resilience and is a source of concern for the NBB.</p>
<p>4.2 Analysis of the serious negative consequences or threat to financial stability (Article 458(2)(b) of the CRR)</p>	<p>Given the importance of residential mortgage loan portfolios in the balance sheet of Belgian credit institutions (around 18% of total assets on average), a severe downturn in the Belgian residential real estate market may have a substantial impact on Belgian credit institutions' solvency position, which may in turn entail unfavourable consequences for the Belgian real economy. As experienced in other countries, it could also rapidly spill-over to the commercial real estate market.</p> <p>Furthermore, recent experience in other countries shows that severe market corrections can also affect the real economy, even in the absence of any major rise in defaults. A decline in consumer confidence as a consequence of increased market volatility or negative wealth effects, for instance, or the prioritisation of solving a potential debt overhang problem, are likely to weigh on the economy at large.</p> <p>Finally, in view of the importance of cross-border banking groups in Belgium and the degree of openness of the Belgium economy, safeguarding financial stability in Belgium will also have positive effects on financial stability in Europe.</p>
<p>4.3 Indicators prompting use of the measure</p>	<p>The main indicators are :</p> <ul style="list-style-type: none"> • house prices, including indicators for price valuation • risk weights and credit standards (LTVs, DSTIs, mortgage loan maturity, banks' interest rate margins, variable vs fixed interest rates,

	<p>etc.)</p> <ul style="list-style-type: none"> • household debt ratio • mortgage loan growth
<p>4.4 Justification why the stricter national measure is necessary (Article 458(2)(c) of the CRR)</p>	<p><i>The main objective of the measure is to raise the resilience of banks exposed to the systemic risk in the residential real estate sector and to publicly signal to banks the importance of maintaining sound lending standards for mortgage loans.</i></p> <p>Compared to the previous macroprudential measure (5pp RW add-on), the proposed measure is intended to create even stronger incentives for maintaining strict credit standards. In line with the previous measure, it increases banks' overall resilience. In addition, the new measure imposes an additional buffer, commensurate with the riskiness of the loan portfolios (as measured by portfolio risk weights), and is likely to have a mitigating impact on the (pricing and volumes of the) riskier loan segments. The NBB expects that riskier mortgage loan segments (with higher implied risk weights) will be priced more appropriately as a consequence of the proposed measure.</p> <p>As mentioned before, the analyses performed by the NBB continue to reveal the existence of important sub-segments in the outstanding portfolios of mortgage loans that combine high levels for some risk parameters — such as loan-to-value ratios or debt service charges for the borrowers. The relative importance of these riskier loan segments in the total loan portfolio (and hence overall risk profile of the mortgage credit portfolio) varies across banks, reflecting structural differences in banks' business models and in practices concerning credit standards at origination. Loan portfolios with higher risk profiles constitute an important source of potential credit losses for banks if conditions in the Belgian housing market were to become less buoyant than they have been over the past 15 years. Particularly in the context of the overall low microprudential risk weights applied by IRB banks, this could result in (unexpected) credit losses beyond those projected on the basis of these internal models.</p> <p>These macroprudential concerns can be addressed by imposing capital requirements on residential mortgage loans that are sufficiently high to absorb a potential increase in credit losses on Belgian mortgage loan exposures and by inducing banks to reduce the share of loans with high risk profiles in the new production. At the current juncture, however, these conditions are not being met. Especially for credit institutions using IRB models (accounting for more than 95% of the market), the average IRB risk weight (prior to any macroprudential measure) is below 10% and remains in the lower range in Europe.</p> <p>In this context, the NBB considers that the new macroprudential measure is warranted in order to enhance the capacity of the Belgian credit institutions to absorb a potential increase in credit losses and to support a reduction in the share of new loans with a high risk profile. The latter is all the more important in view of the intensification of vulnerabilities as implied by the continuing trend-wise increase in household indebtedness in Belgium. The NBB expects that, in addition to reinforcing the resilience of IRB banks and the banking sector at large, the new measure will slow down households' debt take-up somewhat by reducing the share of loans with high LTVs.</p>

Given the macroprudential nature of the proposed measure and the identified market-wide build-up of systemic risks in the mortgage loan exposures, the NBB considers that the application of Art. 458 is required and justified. Additionally, the use of Art. 458 is in line with the general aim of signalling to the market the need for more prudent credit standards. Finally, given that the proposed measure is of a similar nature to the previous (expired) macroprudential measure, it is important to implement the new one on the same legal basis in order to avoid confusion due to communicating different legal bases to banks as well as questions regarding internal consistency of the macroprudential framework.

Why other measures or legal bases are still not adequate?

Article 124 of the CRR

Article 124 enables the competent authority to increase the risk weight of mortgage loans in the standardised approach, while relevant exposures risk-weighted according to internal models represent about 95% of the total market. For exposures that are risk-weighted according to the standardised approach (somewhat above 5% of market shares at the end of 2017), the current risk weight applicable in Belgium (45%) is considered to be sufficient. The measure is only applicable to IRB banks because the risk weight from the internal models is relatively low as they are calibrated on the basis of past data reflecting limited historical losses on the Belgian banks' domestic residential real estate credit portfolio.

Article 164 of the CRR

Article 164 enables the competent authority to increase the LGD floor for mortgage loans.

The NBB considers however that this legal framework is not adequate:

- The intended measure is of a macroprudential nature, while Art. 164 is a microprudential measure which can be implemented by the competent authority (and not the designated authority).
- While Art. 164 would lead to a change in the internal models of banks, the intended measure aims at imposing an additional *macroprudential* buffer – over and above the current microprudential requirements – without affecting banks' internal models. The capital buffer implied by the measure will vary according to the general risk profile of the respective banks' portfolios (risk weights). In this context, the macroprudential capital buffer would vary according to developments on the Belgian residential real estate market (unlike an Art. 164 LGD floor).
- An increase in the average LGD floor in Art. 164 would have implications beyond the calculation of the risk-weighted exposure amounts in Art. 164 and would also apply to e.g. the calculation of expected loss amounts in Art. 158-159.
- As argued above, the use of Art. 458 instead of Art. 164 would also ensure consistency with the first macroprudential measure, i.e. the 5 percentage-point add-on. This would also enhance accountability and facilitate the decision-making process.

Articles 102, 103 and 104 of Directive 2013/36/EU

There are different reasons why these articles are not considered as appropriate in the current context.

- First, the proposed measure is not based on the risk assessment made pursuant to Article 97 on an individual basis but on macroeconomic concerns, relating to the potential developments in the residential real estate market in Belgium, the size of the mortgage loan portfolio within the banking sector as a whole and the important share of loans with high LTVs (also in the new production, despite some tightening in 2013 and 2014). The measure is designed to apply to all banks using an internal model.
- Second, under Regulation N° 1024/2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions, the NBB is no longer the competent authority for Belgian Sis using an internal model. The competent authority, which may make use of Articles 103 and 104, is the ECB since the entry into force of the SSM. Measures taken under Articles 103 and 104 are designed to be used as microprudential measures even if the methodology used for the risk assessment under Article 97 may be identical for credit institutions with a similar risk profile.
- Third, making use of Articles 103 and 104 is also less transparent than making use of Article 458, as the ECB does not necessarily intend to communicate to the credit institutions a detailed quantification and/or breakdown of the Pillar 2 requirements according to the type of risk. As mentioned above, the NBB emphasises the importance of the macroprudential measure's signalling function to the banks and the general public, especially with a view to discouraging production of riskier loans in Belgium.
- Fourth, whereas the proposed measure applies to both the outstanding stock of mortgages as well as to the flow of new loans, a Pillar 2 capital add-on is a more static measure, based on a time-specific assessment of the outstanding stock. This may again reduce the incentive effect of the measure and especially the signalling effect.
- Fifth, implementing the measure under Pillar 2 would also reduce the impact of any other (macroprudential) capital buffer, as the latter has to be applied on the Pillar 1 RWAs. When implemented under Pillar 1, the increase in risk weights related to residential real estate is taken into account in the calculation of RWAs, to which the other capital buffers apply, thereby further strengthening its impact.
- Sixth, we should take into account the fact that the common practice of the supervisory authority (NBB and ECB) is to take a SREP (Pillar 2) decision once a year in the form of a general CET1 ratio requirement. In theory, it is possible to raise the required pillar 2 CET1 ratio by an appropriate percentage reflecting the amount of capital needed to cover the new proposed measure on mortgage loans at the date of the decision. Nevertheless, in doing so, the mortgage loan add-on included in the required Pillar 2 CET1 ratio will also affect the capital requirements related to credit and exposures other than mortgage loans. This is not in line with the aim of the measure, which is to target

	<p>only mortgage loans.</p> <ul style="list-style-type: none"> - Next, Articles 101 and 102 are not applicable as the IRB banks using internal models comply with all the requirements of Regulation N° 575/2013 and there is no evidence of any breach of this Regulation. The transversal review conducted by the NBB in 2014 did not raise any general concerns on the adequacy of the internal models. The low risk weights implied by these models reflect the absence of a major crisis in Belgium in recent decades. However, where individual and specific weaknesses were observed, the bank concerned was required to review its internal models. A further in-depth horizontal review of banks' internal models by the ECB (TRIM) is currently ongoing - More importantly, the risk weight add-on was implemented in the first place with a view to mitigating macroprudential risk stemming from (expected) developments in the real estate market and increasing borrowers' vulnerabilities, and not in order to correct any microprudential issue of potential miscalibration of internal models. While risk weights should correctly reflect (microprudential) risks, recalibrating the internal models is neither adequate nor sufficient a response to identified macroprudential risks. In the specific case of the Belgian real estate market, the proposed measure provides, in addition to increased resilience of banks, an important signalling effect to banks that the NBB, as the macroprudential authority, is ready to activate measures in the face of increasing vulnerabilities. - Finally, with regard to Articles 101 and 102, and independently of internal model calibration, it is important to highlight that the current risk weight calculation based on the Basel formula does not necessarily account appropriately for the systemic risk dimension as the asset correlation parameter for mortgage loans is low, relative to what could happen during a RRE crisis. <p><u>Article 133 and 136 of Directive 2013/36/EU</u></p> <ul style="list-style-type: none"> - First, pursuant to Article 133 and Recital (85) the systemic risk buffer should be used to prevent and mitigate long-term, non-cyclical or macroprudential risk. The increase in risk weights for residential mortgage loans is proposed in order to limit the risk of a potential severe cyclical downturn in the residential real estate market. - Second, the systemic risk buffer should apply to all exposures with possibly a distinction between exposures located in the Member State, exposures located in another Member State and exposures located in third countries. It is not designed to apply to specific exposures, such as residential mortgage credit exposures within a Member State. For this purpose, only Articles 124, 164 and 458 of the CRR are available. If the systemic buffer were to be used and applied to all exposures in Belgium, this would equally penalise credit and other exposures to SMEs and corporates in Belgium, which is not the desired outcome. - With regard to Article 136, the buffer rate for the countercyclical buffer similarly applies to all credit exposures to the non-financial private sector located in the Member State concerned. Applying a buffer rate to all exposures in Belgium will equally penalise credit and other exposures to SMEs and corporates in Belgium, which is not the purpose of the measure. Moreover, there is currently no clear signal of
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	any excessive credit growth in the non-financial corporate sector.
5. Cross-border and cross-sector impact of the measure	
5.1 Assessment of cross-border effects and the likely impact on the internal market (Article 458(2)(f) of the CRR and Recommendation ESRB/2015/2)	<p>The measure is intended to reinforce the solvency position of Belgian credit institutions active in the residential real estate market and as a result, the overall resilience of the financial system. In addition, it provides an incentive to banks to reduce the share of riskier loans.</p> <p>As the measure applies only to the Belgian residential market, there is no indication that it has any impact on individuals or companies outside Belgium.</p> <p>As was the case for the previous macroprudential measure (5 percentage-point add-on), we do not expect the new proposed measure to have a negative impact on the Internal Market that would outweigh the financial stability benefits resulting in a reduction of the macroprudential or systemic risk identified.</p> <p>In view of the persistent and increasing vulnerabilities and in view of the cross-border dimension of the Belgian financial sector, not allowing for the new macroprudential measure – especially in the current low interest rate environment – might in fact negatively affect the Single Market, given the potential effect on financial stability in Belgium (reduction of the capital buffers reducing asset quality, etc.).</p>
5.2 Assessment of leakages and regulatory arbitrage within the notifying Member State	<p>As is the case for the current macroprudential measure, the impact on other sectors of the financial system will be closely monitored, especially among insurance companies, as capital requirements are lower for this type of exposure for insurance companies, increasing the risks of leakages in the context of financial conglomerates in Belgium.</p>
5.3 Reciprocation by other Member States (Article 458(8) of the CRR and Recommendation ESRB/2015/2)	<p>Yes, in view of the systemic nature of the identified risks, the NBB asks the ESRB to recommend that other Member States recognise the measure, as their banking sector may be (or become) exposed directly or indirectly (through their branches) to the risk related to the residential real estate market in Belgium. The NBB asks the ESRB to recommend reciprocation once the measure has been enacted and implemented.</p> <p>In order to avoid disproportionate implementation costs for reciprocating Member States, the NBB proposes an institution-level maximum materiality threshold of € 2 billion to be applied when reciprocating the measure.</p>
6. Miscellaneous	
6.1 Contact person(s) at notifying authority	Hans Dewachter / Thomas Schepens

6.2 Any other relevant information	/
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