

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

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<b>1. Notifying national authority and scope of the notification</b>	
<b>1.1 Name of the notifying authority</b>	National Bank of Belgium
<b>1.2 Categorisation of measures</b>	<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 in 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 subsequently extended until May 2017.</p> <p>The new proposed measure is intended to replace the current one as of May 2017. It consists of two components. The first component 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 for the riskier mortgage loan segments (on the basis of the indexed LTV of the loan). This more elaborate measure therefore achieves an overall increase in the capital buffers for real estate exposures while at the same time targeting more explicitly the riskier segments, thereby discouraging this type of mortgage loans.</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 increase in household indebtedness, and the sustained price increases in residential real estate.</p>
<b>1.3 Request to extend the period of application of existing measures for one</b>	The proposed measure is a new measure replacing the current macroprudential measure consisting in a 5 percentage point add-on on risk weights for Belgian residential real estate exposures of Belgian IRB banks.

<b>additional year</b> <b>(Article 458(9) of the CRR)</b>	
<b>1.4 Notification of measures to which Article 458(10) of the CRR applies ('notification only procedure')</b>	<p>The proposed measure is not subject to the notification procedure as specified in Art. 458 (10) of the CRR.</p> <p>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 for most IRB banks. Article 458(10) of the CRR therefore does not apply.</p>
<b>2. Description of the measure</b>	
<b>2.1 Draft national measures</b> <b>(Article 458(2)(d) of the CRR)</b>	<p>The proposed measure consists of two parts</p> <p><u>The first part of the measure</u> consists in a general risk weight add-on of five percentage points for IRB banks' retail exposures secured by immovable property for which the collateral (immovable property) is situated in Belgium. The increase in the risk weighted assets for bank <math>i</math>, <math>\Delta RWA_i</math>, 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 domestic mortgage loans with an "indexed loan-to-value" (indexed LTV) ratio higher than 80% at the time of the calculation of the buffer. More specifically, this component aims at reserving an additional macroprudential capital buffer by using higher LGD floors at the loan level for specific indexed LTV loan segments. The resulting additional RWA for bank <math>i</math> is determined as follows:</p> $\Delta RWA_i = EAD_i * f(\text{using new LGD macroprudential floors}) - EAD_i * f(\text{using the current 10\% microprudential floor}) \quad (eq. 2)$ <p>where <math>f(\text{using the current 10\% microprudential floor})</math> refers to the standard Basel/CRR computation for microprudential risk weights for credit risk related to residential real estate.</p> <p>In <math>f(\text{using new LGD macroprudential floors})</math> the microprudential 10% LGD floor is replaced by the relevant LGD floors which must be applied at the loan level. In particular, the following floors, determined on the basis of the indexed LTV, at the time of the calculation of the buffer, have to be applied at loan level:</p> <ul style="list-style-type: none"> <li>- if "indexed LTV" &gt; 80% but ≤ 90%, then the LGD floor is 20%</li> <li>- if "indexed LTV" &gt; 90%, then the LGD floor is 30%</li> </ul> <p>By default, if the indexed LTV of a loan is not known upon the reference date a 30% LGD floor will be applied. The relevant LGD floors will be applied to the full amount of the loan as no loan-splitting will be allowed, i.e. the floor does not apply to the part of the loan which exceeds the abovementioned thresholds but to the loan amount in full. Guidelines and specifications for computing the indexed LTVs will be made available to the</p>

	<p>banks concerned.</p> <p>It should be noted that the 10% LGD floor still has to apply to the total loan portfolio prior to the application of the macroprudential measure. As such, the macroprudential measure leaves the microprudential RWAs unchanged.</p> <p><b><u>After application of the new proposed measure, the total risk-weighted assets for Belgian banks' domestic mortgage loan portfolios, which must be covered by regulatory capital, will therefore be determined by</u></b> :</p> <p><b>(1) Micro risk-weighted assets (based on IRB banks' internal models)</b>  <b>+ (2) 5% * EAD (see equation (1))</b>  <b>+ (3) Risk-sensitive RWA add-on (see equation (2))</b></p>
<p><b>2.2 Scope of the measure</b> <b>(Article 458(2)(d) of the CRR)</b></p>	<p>The measure applies to:</p> <ul style="list-style-type: none"> <li>• retail exposures secured by immovable property for which the collateral (immovable property) is situated in Belgium;</li> <li>• IRB credit institutions. The measure focuses on IRB banks as their model-implied risk weights are relatively low, compared to those 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 46%).</li> </ul>
<p><b>2.3 Calibration of the measure</b></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 in a multiplication of the default rate by 5 and in an increase in the LGD by 25 percentage points for each credit institution and (ii) a complementing scenario that additionally imposes a minimal default rate per institution (through the introduction of a floor on default rates of 4%). These cases represent (conservative) stress scenarios with increases in LGD on the higher end of the reported overvaluation (accounting for some overshooting in case of a crisis) and the five-fold increase in PDs is comparable with developments in the Spanish housing market in which 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 buffer for residential real estate exposures of IRB banks might on average not be sufficient to absorb potential losses in case of severe stress. Additional buffers may hence be required to absorb such losses.</p> <p>The total impact of the proposed measure on IRB banks' CET1 capital is</p>

	<p>estimated at €1,381 million, equivalent to on average approximately 2.9% of total CET1 capital of the IRB banks. The breakdown of the total estimated impact according to the contribution of the two components indicates a total CET1 impact of € 820 million due to the 5 percentage point risk weight add-on and an additional impact of € 561 million (equivalent to 1.2% CET1 capital) for the second component. The measure increases the implied risk weights (on mortgage exposures) from, on average, 9.6 % to 18%, decomposed into an increase of 5 and 3.4 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 € 1,381 million CET1 capital corresponds to an 89% increase in the capital buffer compared to the microprudential CET1 capital requirements for this portfolio. This increase can be attributed to the first and second components of the measure for 53 and 36 percentage points, respectively.</p> <p>Credit institutions have been asked by the NBB to compute the impact of the proposed measure on a best effort basis. The results of this impact assessment are, at sector level, in line with the estimates reported above. The impact on the individual banks' CET1 ratio depends on banks' business models (in particular on the overall exposure to residential real estate risk) and on the quality of their mortgage portfolio.</p>
<p><b>2.4 Suitability, effectiveness and proportionality of the measure</b> <b>(Article 458(2)(e) of the CRR)</b></p>	<p><b><i>The NBB considers that the new measure is necessary, suitable, effective and proportionate on the basis of a number of considerations.</i></b></p> <p><b><i>First, the proposed measure is intended to strengthen banks' resilience</i></b> against a potential severe downturn in the housing market by imposing a sufficiently strong capital buffer for residential real estate exposures. As mentioned before the total implied macroprudential buffer is estimated to be around €1,381 million, of which €820 million is due to the 5 percentage point add-on and € 561 million is generated by the second component. The need for an additional <i>macroprudential</i> buffer arises from the low risk weights applied to real estate exposures by IRB banks against a background of increasing 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.</p> <p><b><i>Second, through the targeted component, 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 high LTVs.</i></b> This type of loans would lead to higher losses for banks in case of a severe downturn in the Belgian residential real estate market. While the introduction of various 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 that such behaviour 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 occurred through the shortening of (very long) loan maturities, mixed signals re-emerge regarding the loosening of other credit standards (w.r.t. LTVs, DSTIs and margins) from the more recent data</p>

vintages, after some initial strengthening observed in 2013 and 2014:

- **No further improvement in LTV and DSTI values being observed since 2015.** In line with the developments in credit standards, 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.
- **In contrast with the development w.r.t. the share of high-LTV loans in recent years, banks appear to have continued to tighten clients’ access to mortgage loans with long maturities (25 years or more).** In 2015, a further reduction in the new production of long-maturity loans was observed. The share of those long-maturity loans remained marginal in 2016.
- **While banks had significantly increased their commercial margins since 2011, recent data show a stabilisation (since 2015) and some decrease (in 2016) 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 mortgage loan extension and increases the overall resilience against the increasing 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. Banks with higher credit quality should however be affected to a lesser extent. The measure is therefore considered proportionate.

**This measure also addresses the ESRB Warning of November 2016,** also endorsed by the ECB’s Governing Council in its press communiqué of 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%)

**The NBB therefore considers the extended measure which combines a 5 percentage points risk weight add-on with a risk-sensitive capital add-on 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.

Finally, the NBB considers the proposed measure as a necessary and, at

	<p>the current juncture sufficient, substitute for the existing macroprudential measure. While the introduction of the latter was certainly effective in building up resilience of the IRB banks, it is no longer sufficient in view of the increasing exposures of the banks and the discontinuation of credit standards tightening in recent years, especially in the riskier loan segments. The new measure not only increases the capital buffers in line with exposures, but it also incorporates for the riskier loan segments a signalling effect and potentially a stronger pricing impact than the current measure. An empirical analysis of the impact of the current measure performed by the NBB confirms the effectiveness of the current 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 is 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) is 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 high LTV loans, especially for the more RRE-exposed IRB banks.</p> <p>The measure will be regularly reviewed and monitored on the basis of its risk-mitigating impact on residential real estate exposures, also in view of the developments of the indexed LTV measures. The developments in credit standards (e.g. LTV/DSTI combinations for specific loan maturities) as well as the overall coverage of banks' exposure to real estate risks are instrumental in this evaluation. The capital buffers will start to be released, however, when banks would 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.</p>
<b>2.5 Other relevant information</b>	
<b>3. Timing of the measure</b>	
<b>3.1 Timing of the Decision</b>	May 2017
<b>3.2 Timing of the Publication</b>	May 2017
<b>3.3 Disclosure</b>	<i>The NBB has already announced its intention to introduce the proposed measure, conditional upon approval by the European Authorities</i> , at the NBB FSR 2016 press conference in June 2016. In

	<p>addition to announcing the proposed measure, the Governor also insisted on the need to maintain sound credit standards and sufficiently high margins to cover all risks (including prepayment) and costs. Following up on this announcement, the NBB held a meeting with the banks' CEOs to detail the intended measure and its main objectives.</p>
<p><b>3.4 Timing of Application (Article 458(4) of the CRR)</b></p>	<p>May 2017</p>
<p><b>3.5 Phasing in</b></p>	<p>No phasing-in is planned. The measure will be applied immediately to the entire mortgage loan stock.</p>
<p><b>3.6 Term of the measure (Article 458(4) of the CRR)</b></p>	<p>The measure is intended to be implemented for a minimum of two years and possibly renewed afterwards.</p>
<p><b>3.7 Review (Article 458(9) of the CRR)</b></p>	<p>The calibration and appropriateness of the measure will be reviewed on a yearly basis, with possible revisions of the overall measure implemented at renewal.</p>
<p><b>4. Reason for the activation of the stricter national measure</b></p>	
<p><b>4.1 Description of the macro-prudential or systemic risk in the financial system (Article 458(2)(a) of the CRR)</b></p>	<p>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 portfolio.</p> <p>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 over the most recent years.</p> <p>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 more explicitly targets the riskier loan segments.</p> <p>The conclusions above are based on a number of specific analyses detailed below:</p> <p><b><i>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%.</i></b> In fact, 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 growth rate of 5.0% since 2000, the reference price index for residential real estate currently stands at the</p>

highest level recorded in nominal terms. This strong growth of nominal real estate prices significantly outpaced general consumption price indices and resulted in an increase in the real price of residential real estate of more than 60%. Following the financial crisis, the growth rate of real estate prices became more volatile and slowed down somewhat. It had declined since 2011, reaching 0.7% in 2014. However, figures for 2015 point to a substantial pick-up in prices, with a 3.8% average increase, while again decelerating in 2016 to 0.7%. It should be stressed, however, that the statistics for 2016 have been revised downward and were contrary to expectations (further data may be required before confirming a deceleration for 2016).

***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 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 substantial overvaluation in the residential real estate markets (above 25%). For instance, the price-to-income ratio, which increased by more than 50% since 2000Q1, reached historically high levels. Measured against the (expanding window) unconditional average, this would imply an overvaluation of more than 25%. Affordability indicators, which correct the price-to-income measures for changes in interest rate conditions, corroborate this assessment of overvaluation. Despite significant decreases in interest rate levels for mortgage loans observed since the financial crisis, affordability indicators continued to deteriorate (increase) and currently stand at historically high values, suggesting some degree of overvaluation as well.

In addition, 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, the characteristics of the mortgage loans, the tax regime applicable to residential property and the 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 measures is increasingly used in national and international organisations, in particular the ECB, to assess over- or undervaluation in 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 indeed stood at 10.9% at the end of 2015 before eventually falling to 6.0% in the third quarter of 2016. The significant reduction in the mortgage tax abatement in the Flemish Region in 2014 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 estimation of the model-based overvaluation is subject to uncertainty and implies a 95% confidence interval between [-0.1% and 11.8%].

The model-based estimate of overvaluation is however conditional on the



currently historically low interest rates, representing the equilibrium level of the interest rate in this type of models. Potential reversals in the medium term to a more normal interest rate environment 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 rate levels. 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 overvaluations in the case that negative feedback loops would occur that trigger (negative) overshooting of the equilibrium price. The ESRB in its 2016 report: *Vulnerabilities in the EU residential real estate sector* includes Belgium among the countries with (somewhat) increased likelihood of the materialisation of such a reinforcing spiral (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 5.3% in September 2016), after some slowdown over the period 2013- 2014, and is well above the average growth recorded in the euro area (2.4%). While some acceleration in (mortgage) credit growth at the end of 2014 was expected in view of the anticipation of changes in the tax regime, the stabilisation of credit growth at a high level (5.2% in 2015 and 2016) 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. On a non-consolidated basis, total outstanding mortgage loans granted by Belgian banks to Belgian households grew from € 169 billion at the end of 2014 to € 177 billion at the end of 2015 and € 184 billion at the end of September 2016. 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 37.4% in 2002Q1 to 59.1% GDP in the third quarter of 2016 (and 54.4% 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, 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 w.r.t. the share of new loans with high LTVs (>90%) which have oscillated around 30% in recent years. In addition, the strengthening of credit standards observed in 2013-2014 came to a halt in 2015 and 2016:

- 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 and 2016 vintages. Given the still sizeable share of loans carrying a high LTV in new production (around 30% of the most recent vintages had an LTV above 90%), this is a point of particular concern. Average indexed LTV figures at the end of 2015 indicate that 16.8% (i.e. € 28.8 billion) of the total outstanding stock carried an indexed LTV above 90%, while the share of these loans stood at 15.3 % at the end of 2014. 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-
- Banks have, however, continued to tighten clients' access to mortgage loans with long maturities. In the most recent production, a further reduction of long-maturity loans was observed. Relative to 2012, when the NBB first signalled its concerns over credit standards, the percentage of loans granted with a maturity of more than 25 years dropped from almost 20% in production volumes to only 2% in 2015 and 2016.
- The cutback in supply of longer mortgage loan maturities seems not to have led to a concurrent upward pressure on DSTI ratios for borrowers. On the contrary, DSTI ratios have improved between the 2012 and 2014 vintages, suggesting that banks have become more selective in this aspect of their credit origination policies since 2012. However, specific developments (the decline in interest rates as well as the important prepayment operations) could have biased downwards the DSTI ratio for these vintages. No further improvement in figures is observed for the 2015 and 2016 vintages. Therefore, one can 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 (around 20% for the most recent production vintages).
- In line with the developments in 2015 credit standards, there was no reduction in the relative importance of the total mortgage loan stock of the "riskier loan segments" combining high LTV and/or DSTI and/or maturity levels at origination. Nevertheless, the average IRB risk weight for mortgage loans (before taking into account the macroprudential measures) slightly decreased in 2015 from 9.7% to 9.6%, while at the same time the average model-based PD declined (from 1.5% to 1.3%) and LGD rose slightly (from 11.2% to 11.4%).

***Finally, based on the analysis of banks' business plans, banks expect sustained new mortgage lending in the coming years.*** In view of the low interest rate environment which puts pressure on banks to mitigate its impact on profitability, a widespread strategy of increasing mortgage credit may intensify competition between the main credit institutions. Such increased competition could trigger increased risk-taking, i.e. a further easing of credit standards in the form of lower commercial margins or laxer

	<p>LTV and/or DSTI constraints. In view of identified vulnerabilities, and without mitigating measures, such behaviour would undermine banks' resilience and is a source of concern for the NBB.</p>
<p><b>4.2 Analysis of the serious negative consequences or threat to financial stability (Article 458(2)(b) of the CRR)</b></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 spillover to the commercial real estate market.</p> <p>Furthermore, recent experiences in other countries show that severe market corrections can also affect the real economy, even in the absence of major increases in defaults. A decline in consumer confidence as a consequence of e.g. increased market volatility or negative wealth effects, 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><b>4.3 Indicators prompting use of the measure</b></p>	<p>The main indicators are :</p> <ul style="list-style-type: none"> <li>- house prices, including indicators for price valuation</li> <li>- credit standards (LTVs, DSTIs, mortgage loans' maturity, banks' interest rate margin, variable vs fixed interest rates, etc)</li> <li>- household debt ratio</li> <li>- mortgage loan growth</li> <li>- risk weights for real estate exposures</li> </ul>
<p><b>4.4 Justification why the stricter national measure is necessary (Article 458(2)(c) of the CRR)</b></p>	<p><b><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 at the origination of mortgage loans.</i></b></p> <p>Compared to the existing macroprudential measure, the proposed measure is intended to create even stronger incentives for maintaining strict credit standards. In line with the existing measure, it increases banks' overall resilience. In addition, the new measure imposes an additional buffer on the riskier loan segments and is likely to have a mitigating impact on the (pricing and volumes of the) riskier loan segments. The NBB expects that riskier mortgage loans (with high LTVs) will be priced more appropriately as a consequence of the proposed measure.</p>

As mentioned above, 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 loan segments in the total loan portfolio varies across banks, reflecting structural differences in banks' business models and in practices concerning the credit standards at origination. These riskier loan segments 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. In particular in the context of low risk weights applied by IRB banks, this could result in (unexpected) credit losses beyond those projected on the basis of these internal models.

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 LTVs in the new production. At the current juncture, however, these conditions are not met. Especially for credit institutions using IRB models (representing 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.

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 high LTVs. 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 somewhat households' debt take-up by reducing the share of loans with high LTVs.

***The NBB considers that, given the macroprudential nature of the proposed measure and the identified market-wide build-up of systemic risks in the mortgage loan exposures, 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 as the current macroprudential measure, it is important to implement the new measure on the same legal basis in order to avoid both 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 basis 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 2015), the current risk weight applicable in Belgium (46%) 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 of 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 – 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 individual banks' portfolios and especially according to the share of loans with LTVs above 80%. In this context, the macroprudential capital buffer would vary according to developments on the Belgian residential real estate market.
- The calculation of the macroprudential buffer is (next to the general 5 percentage point add-on) based on a higher LGD floor for each individual loan with an LTV above 80%. Art. 164 however only allows setting higher minimum values for the (exposure-weighted) average LGD. This could induce banks to minimise the impact of the measure by imposing higher LGD floors on a subset of loans with the lowest PDs. Furthermore, in the absence of the approval by the EBA Board of Supervisors, it is unclear whether the average LGD floor can be increased for subsets (defined by LTV buckets) of exposures secured by property.
- An increase in the average LGD floor in Art. 164 would have implications beyond the calculation of the risk-weighted exposure amounts in Art. 154 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 evolution of the residential real estate market in Belgium, the size of the mortgage loan portfolio within

	<p>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.</p> <ul style="list-style-type: none"> <li>- 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.</li> <li>- Third the current SREP decisions for 2017 – which have been approved by the Supervisory Board (September 8-9, 2016) - do not include any capital surcharge for residential real estate risks. Moreover, in general, SREP assessments with regard to banks' internal models (validation of to what extent the particular risks of the bank are sufficiently captured etc.) are not performed to counter (i.e. manage) macroprudential or systemic risk in the financial system and the real economy.</li> <li>- Fourth, making use of Articles 103 and 104 is also less transparent than making use of Article 458, as the ECB does not intend to communicate to the credit institutions a detailed quantification and/or breakdown of the pillar 2 requirements according to the type of risks. As mentioned above, the NBB emphasises the importance of the signalling function of the macroprudential measures to the banks and the general public, especially with a view to discouraging production of riskier loans in Belgium.</li> <li>- Fifth, 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, which only applies to the outstanding stock. This may again reduce the incentive effect of the measure and especially the signalling effect.</li> <li>- Sixth, 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 the residential real estate is taken into account in the calculation of RWAs, to which the other capital buffers apply, thereby further strengthening its impact.</li> <li>- Seventh, we should take into account 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 increase the required pillar 2 CET1 ratio by an appropriate percentage reflecting the amount of capital needed to cover the new measure on mortgage loans at the date of the SREP 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 credits and exposures other than mortgage</li> </ul>
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	<p>loans. This is not in line with the aim of the measure, which is to target only mortgage loans.</p> <ul style="list-style-type: none"> <li>- 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 a 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) will take place in 2017/2018. It should be noted in this context that, while having the lowest average LGD in the sample covered by the EBA's third interim report on the consistency of risk-weighted assets, the Belgian banking sector is not an outlier in this respect. In fact, the report shows that 25% of the 112 reported banks show an LGD that is equal to or only slightly higher than the 10% floor. Furthermore, 10 out of 17 countries (representing more than 65% of the banks in the sample) report an average LGD that is (well) below 15%. More importantly, the risk weight add-on is implemented in the first place with a view to mitigating a macroprudential risk stemming from (expected) developments in the real estate market and increasing borrowers' vulnerabilities, and not in order to correct a microprudential issue of potential miscalibration of internal models. While risk weights should correctly reflect (microprudential) risks, recalibrating the 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 case of increasing vulnerabilities.</li> <li>- Finally, w.r.t. Articles 101 and 102, and independent of calibration of internal models, 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 be materialize during a RRE crisis.</li> </ul> <p><b><u>Article 133 and 136 of Directive 2013/36/EU</u></b></p> <ul style="list-style-type: none"> <li>- 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.</li> <li>- 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 mortgages credit exposures within a Member state. For</li> </ul>
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	<p>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.</p> <p>- With regard to Article 136, the buffer rate for the countercyclical buffer similarly applies to all exposures 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 sign of excessive credit growth in the non-financial corporate sector.</p>
<b>5. Cross-border and cross-sector impact of the measure</b>	
<p><b>5.1 Assessment of cross-border effects and the likely impact on the internal market</b> <b>(Article 458(2)(f) of the CRR and Recommendation ESRB/2015/2)</b></p>	<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 important 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 the measure has any impact on individuals or companies outside Belgium.</p> <p>As was the case for the current macroprudential measure (5 percentage points 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 measures – 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 decreasing asset quality, ...).</p>
<p><b>5.2 Assessment of leakages and regulatory arbitrage within the notifying Member State</b></p>	<p>As is the case for the current macroprudential measure, the impact on other sectors of the financial system will be closely monitored, especially the insurance companies, as capital requirements are lower for this type of exposures for insurance companies, increasing the risks of leakages in the context of financial conglomerates in Belgium.</p>
<p><b>5.3 Reciprocation by other Member States</b> <b>(Article 458(8) of the CRR and Recommendation ESRB/2015/2)</b></p>	<p>Yes, in view of the systemic nature of the identified risks, the NBB asks the ESRB to recommend to other Member States to recognise the measure, as their banking sector may be exposed directly or indirectly (through their branches) to the risk related to the residential real estate market in Belgium. Reciprocity of the measure is also important in view of the intensification of vulnerabilities as implied by the continuing trend-wise increase in household indebtedness in Belgium. In particular, reciprocity would increase the effectiveness of the new measure in not only reinforcing the resilience of the IRB banks and the banking sector at large but also slowing down somewhat</p>



	households' debt take-up by reducing the share of loans with high LTVs.
<b>6. Miscellaneous</b>	
<b>6.1 Contact person(s) at notifying authority</b>	<a href="#">Hans Dewachter</a> / <a href="#">Thomas Schepens</a>
<b>6.2 Any other relevant information</b>	