

## Notification template for measures to be taken under Article 458 of the Capital Requirements Regulation (CRR)

**Template for notifying the European Central Bank (ECB), the European Systemic Risk Board (ESRB) and the European Commission of stricter national measures pursuant to Article 458(2) CRR and for requesting the ESRB to issue a recommendation to other Member States to reciprocate the measures pursuant to Article 458(8) CRR**

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The ESRB will forward this notification to the European Parliament, the European Council and the European Banking Authority (EBA) without delay. This notification will be made public by the ESRB after the relevant authorities have adopted and published the notified macroprudential measure<sup>2</sup>.

E-mailing/uploading this template to the above addresses constitutes official notification; no further official letter is required. To facilitate the work of the notified authorities, please submit the notification template in a format that allows the information to be read electronically.

1. Notifying national authority and scope of the notification	
<b>1.1 Name of the notifying authority</b>	Finansinspektionen, Swedish Financial Supervisory Authority
<b>1.2 Country of the notifying authority</b>	Sweden
<b>1.3 Categorisation of the measure</b>	<p>Finansinspektionen, in its capacity as the designated authority for the purpose of Article 458 of Regulation (EU) No 575/2013, intends to extend the period of application for its current stricter national measure for credit institutions using the Internal Ratings Based (IRB) Approach for calculating regulatory capital requirements applicable to retail exposures in Sweden collateralised by property. The extension would run for two years. The possibility of an extension of this type of measure is provided for in Article 458 (9) of the CRR<sup>2</sup>.</p> <p>The stricter national measure concerns risk weights for targeting asset bubbles in the residential property sector and their potential spillover effects (Article 458(2)(d)(iv) of Regulation (EU) No 575/2013). This national measure enables Finansinspektionen to</p>

<sup>1</sup> Council Regulation (EU) No 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions (OJ L 287, 29.10.2013, p. 63).

<sup>2</sup> On request by the notifying authority, it may be agreed with the Head of the ESRB Secretariat that this notification, or a part thereof, should not be published for reasons of confidentiality or financial stability.

	<p>continue to apply the current risk weight floor of 25% for Swedish mortgages for IRB banks.</p> <p>More specifically, the measure is defined as:</p> <p><i>A credit institution-specific minimum level of 25% for the average risk weight on Swedish housing loans applicable to credit institutions that have adopted the Internal Ratings Based Approach.</i></p> <p>For the purpose of this notification, the term “bank” has the same meaning as “credit institution” as defined in Article 4 of the CRR2.</p>
<p><b>1.4 Request to extend the period of application of an existing measure for up to two additional years (Article 458(9) CRR)</b></p>	<p>The proposed measure is a two year extension of the current macroprudential measure using Article 458 of the CRR2.</p>
<p><b>1.5 Notification of a measure to which Article 458(10) CRR applies (‘notification only procedure’)</b></p>	<p>The proposed measure is not subject to the notification procedure as specified in Article 458(10) of the CRR2. The measure implies an average risk weight floor of 25% on the Swedish mortgage exposure portfolios of the IRB banks. The largest nine of these banks (accounting for around 96% of the total mortgage market in Sweden) currently have average risk weights for their respective relevant portfolios that range from 3.3% to 14.9% in Pillar 1 based on their IRB models in the absence of the measure. The impact of the measure for the affected IRB banks is thus more than 25% of their respective risk weights that result from the use of the IRB models. Therefore, Article 458(10) of the CRR2 does not apply.</p>
<p><b>2. Description of the measure</b></p>	
<p><b>2.1 Draft national measure (Article 458(2)(d) CRR)</b></p>	<p>The risk weight floor for Swedish mortgage exposures constitutes an important element of Finansinspektionen’s capital requirements. It applies to credit institutions that have permission to use the IRB approach<sup>3</sup>.</p> <p>Finansinspektionen made the assessment when the floor was introduced that it was crucial for the stability of the Swedish financial sector that these credit institutions held own funds that fully covered the risks in the Swedish mortgage portfolios from a wider and more forward-looking perspective than was the result of the IRB model estimations.</p> <p>The level of the floor, defined as the average risk weight at the portfolio level, was set with the argument that the credit institutions’ IRB approaches are unlikely to fully capture the credit loss risk of Swedish mortgages in a severe downturn which could lead to severe spillover effects for the Swedish and regional economies<sup>4</sup>. Credit risk models on Swedish mortgage exposures often generate risk weights that from a broader perspective can be considered to be relatively low since credit losses in the mortgage portfolios have been</p>

<sup>3</sup> Swedish mortgages in the standardised approach receive a higher average portfolio risk weight than 25% and therefore fall out of the scope of this measure

<sup>4</sup> The risk weights resulting from the IRB models range from 3.3% to 14.9%, for the largest nine IRB banks. The average risk weight for all banks is 4.4%.

	<p>virtually non-existent for a long period of time. In order to also account for the broader systemic risks that could arise from the Swedish mortgages of individual credit institutions, the floor was set at 25% in 2014.</p> <p>Since these risks persist, it is proposed that the current measure is extended. The measure will therefore comprise:</p> <ul style="list-style-type: none"> <li>• An average risk weight floor of 25% on the Swedish mortgage exposure portfolios of the IRB banks.</li> </ul> <p>Definition of average risk weight</p> <p>The proposed measure refers to the exposure-weighted average risk weight. It is calculated by dividing the portfolio's risk-weighted exposure amount<sup>5</sup> by the exposure amount (EAD). The additional risk exposure amount according to Article 458 = <math>EAD \times (25\% - \text{current RW})</math></p> <p>The measure constitutes an average risk weight floor at the portfolio level of the concerned IRB banks covered by the measure.</p> <p>The measure affects the total risk exposure amount (TREA) and, therefore, the minimum Pillar 1 capital requirements that IRB banks have to meet at all times according to Article 92 of the CRR2. The measure thus increases the overall REA of the affected IRB banks compared to a baseline without this measure in place. There will however be no direct additional impact on total capital requirements as a result of this extension since the banks are already subject to this measure.</p> <p>According to Chapter 1, section 6, second paragraph of the Special Supervision of Credit Institutions and Investment Firms Act (2014:968), Finansinspektionen is the competent authority in Sweden to decide on special macroprudential measures in accordance with Article 458 of the CRR2.</p> <p>Article 458(2)(d) (iv) of the CRR2 is the legal basis for the measure.</p>
<p><b>2.2 Scope of the measure</b> <b>(Article 458(2)(d) CRR)</b></p>	<p>The scope of the measure, in terms of both exposures covered and credit institutions concerned, is the same as in the current measure. More specifically, the measure applies to:</p> <ul style="list-style-type: none"> <li>• Exposures in Sweden collateralised by immovable<sup>6</sup> property within the exposure class 'retail exposures'<sup>7</sup>. This approach does not create burdensome additional work for the affected banks since it uses an already existing definition in the CRR2.</li> </ul> <p>In accordance with the current calculation of the risk weight floor, the calculation will be based on reported data in the COREP template based on the following cells:</p> <ul style="list-style-type: none"> <li>○ C 09.02 – Geographical breakdown of exposures by residence of the obligor: IRB exposures (CR GB 2), Sweden.</li> </ul> <p>✓ Row 0070, columns 0105 and 0125</p> <p>For institutions that are subject to the measure but do not report in accordance with C 09.02, the following is proposed:</p>

<sup>5</sup> Risk-weighted exposure amount for retail exposures calculated in accordance with Article 154 and 154(3) of the CRR2.

<sup>6</sup> Article 154(3) of the CRR2

<sup>7</sup> Article 147(2)(d) of the CRR2.

	<ul style="list-style-type: none"> <li>○ C 08.01– Credit and counterparty credit risks and free deliveries: IRB approach to own funds requirements (CR IBR 1)</li> <li>✓ Row 0010, columns 0110 and 0260</li> </ul> <ul style="list-style-type: none"> <li>• Credit institutions that have permission to use the IRB approach and have an exposure to Swedish mortgages. The measure focuses on IRB banks as their model-implied risk weights are relatively low, compared to those implied by the standardised approach<sup>8</sup>. These are also typically the credit institutions with the largest share of mortgage exposures in their portfolio in Sweden. Their aggregate mortgages account for around 96% of the total mortgage market in Sweden.</li> <li>• The measure applies to the individual banks as well as the consolidated situation. This implies that 19 banks will currently fall within the scope of the measure, including Nordea Bank’s Swedish Subsidiary (Nordea Hypotek AB) and Danske Bank’s Swedish subsidiary (Danske Hypotek AB). Both Nordea Bank and Danske Bank operate in the Swedish mortgage market through their Swedish branches as well.</li> </ul>
<p><b>2.3 Calibration of the measure</b></p>	<p>Since this measure is an extension, the calibrated level of the proposed measure will be the same as it is currently – 25%. This calibration is set so that the minimum level for the average risk weight floor securely covers both future loss levels in Swedish residential mortgages in a severe downturn with high financial stress, taking into account the broader systemic risks that could arise from spillovers. Despite the Covid pandemic, risk weights have remained relatively stable and so a risk weight floor of 25% is assessed to continue to be adequate for this purpose. For more information on the prior calibration of the measure and assessments related thereto, please see Risk Weight Floor for Swedish Mortgages, May 2013, FI (in particular pp. 14-19) and Increase to the Risk Weight Floor for Swedish Mortgages, Chapter 4 (in particular pp. 62-63) of Capital Requirements for Swedish Banks, September 2014, FI<sup>9</sup>.</p> <p>The capital requirement, in nominal terms, corresponding to a 25% risk weight floor for Swedish mortgages, is SEK 96 billion at the consolidated level (data from Q2 2021) or just under 22% of the total capital requirement for the largest Swedish banks<sup>10</sup>. The measure increases the implied risk weights on Swedish mortgage exposures from 4.4% on average (volume-weighted) to 25%. Thus, the risk weight floor has increased the capital levels and created an added loss-absorbing capacity in the affected banks.</p>
<p><b>2.4 Suitability, effectiveness and proportionality of the measure</b></p>	<p><b><i>Finansinspektionen considers the proposed measure to be 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 ensure that important residential mortgage banks are fully resilient</i></b> and can withstand a potentially severe downturn in the housing market without restricting the supply of credit. This can be achieved by</p>

<sup>8</sup> Swedish banks applying the standardised approach assign risk weights of 35% to their exposures fully and completely secured by mortgage on residential property in Sweden. Their total share of the Swedish mortgage market is about 4%.

<sup>9</sup> Links to the two decisions on introducing and revising the Swedish risk weight floor in 2013 and 2014, respectively, are found in section 6.2.

<sup>10</sup> Capital requirements for the Swedish banks, second quarter 2021, August 2021, FI.

<https://www.fi.se/contentassets/41d3e2773cbb4fc2a5883cacd198b378/svenska-bankerns-kapitalkrav-2021-kv2-engn2.pdf>

(Article 458(2)(e)  
CRR)

imposing a sufficiently high capital requirement for residential real estate exposures. The necessity of this is stressed by the elevated household indebtedness in Sweden, mainly consisting of mortgage loans, which has increased rapidly and almost continuously for a long time. This development has occurred hand-in-hand with substantial increases in house prices over the past 20 years. Studies by international bodies such as the International Monetary Fund (IMF)<sup>11</sup>, the ESRB<sup>12</sup> and the European Commission<sup>13</sup> indicate overvaluation in the Swedish residential real estate market. These international bodies have continuously highlighted the systemic risks posed by Swedish mortgages and the developments on the Swedish housing market.

The need for additional capital buffers also arises from the low model-implied risk weights for mortgage exposure, which stand in contrast to the increased vulnerabilities at the macro level. Given the IRB-modelling of credit risks and the fact that Sweden has not experienced a real estate crisis of a major magnitude since the early 1990s (and even then credit losses were not that high in the retail segment), it is assessed that the baseline IRB risk weights without the 458 measure do not and cannot reflect the full impact of a potential crisis at the macro level in an accurate way. Therefore, there is a need to target the risks associated with high household indebtedness and high house prices through holding a sufficiently strong capital position for mortgage exposures.

**Second, the measure is effective and proportionate in that it targets the exposures that give rise to the identified risks linked to Swedish mortgages and residential real estate.** The design of the measure is such that it ensures good precision in targeting the mortgage exposures of IRB banks.

**Third, the measure is suitable and effective as it intends to ensure a level-playing field** for all banks that operate in the Swedish residential mortgage market **and, in turn, also upholds resilience and safeguards financial stability.** This is especially important given the current structure of the Swedish banking market (where most significant lenders in the Swedish mortgage market are consolidated in Sweden, except for the Swedish branches of Nordea Bank and Danske Bank). Article 458 of the CRR2 contains a structured and pre-defined process for requesting reciprocity by the designated authorities in the EU Member States. Thus, through reciprocity by Finanssivalvonta and Finanstilsynet, the macroprudential risks identified in the mortgage and housing markets can be addressed for all relevant lenders in the Swedish market, contributing to a level playing field.

**Furthermore, the measure ensures that capital levels are upheld and contributes to mitigating the risks highlighted in the ESRB Warning from November 2016.** In its warning, the ESRB identified the main vulnerabilities for Sweden by explicitly referring to:

- "... the rapidly growing residential real estate prices that appear to be overvalued, and high and increasing indebtedness especially among some groups of households. In addition, if risks were to materialise, there could be potential cross-border spill-over effects to other countries in the Nordic-Baltic region."
- "Adverse dynamics in residential real estate prices and household consumption may also pose a threat to the banking system. Downside risk could be amplified by the high reliance of Swedish banks on market and foreign currency funding."

<sup>11</sup> <https://www.imf.org/en/Publications/CR/Issues/2019/03/26/Sweden-2019-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-46709>

<sup>12</sup> [https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation190923\\_se\\_recommandatio\\_n~a11003ac8e.en.pdf](https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation190923_se_recommandatio_n~a11003ac8e.en.pdf)

<sup>13</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0526&from=EN>

	<ul style="list-style-type: none"> <li>• ... vulnerabilities in the residential real estate sector of Sweden as a source of systemic risk to financial stability which may have the potential for serious negative consequences for the real economy.”</li> </ul> <p><b><i>the ESRB recommendation from June 2019, following up on the 2016 assessment noted additionally that:</i></b></p> <ul style="list-style-type: none"> <li>• “...house prices remain overvalued and household indebtedness has increased significantly”</li> <li>• “The purpose of this Recommendation is to recommend: ... the tightening of the existing, or the activation of other, macroprudential measures if the vulnerabilities related to household indebtedness and overvaluation of house prices continue to increase due to cyclical economic and financial reasons.</li> </ul> <p>Finally, ongoing analysis<sup>14</sup> at the ESRB suggests that household indebtedness remains one of the highest in Europe, Residential property continues to be overvalued and there continues to be a need to consider further policy actions to address the underlying factors.</p> <p><b><i>In summary, Finansinspektionen considers the current measure, an average risk weight floor of 25% for mortgage exposures for IRB banks, as necessary, suitable, effective and proportionate and believes that it should be extended for a period of two years.</i></b> The measure is necessary to ensure a sufficient capital position and thus resilience in the Swedish banking sector. This loss-absorbing capital is necessary to have in place in the event of a severe downturn in the Swedish housing market, thereby supporting the banks in maintaining the flow and supply of credit to the real economy.</p> <p>The measure targets residential mortgage exposures and has been in place-via Article 458 since 2018 in order to ensure a level playing field following Nordea's re-domicile. No negative spill-overs to other sectors, credit extensions in general or the real economy have been observed since the measure's introduction. The requirement constitutes today on average around 22%<sup>15</sup> of the nominal total capital requirement for the largest Swedish banks at the consolidated level, which confirms the effectiveness of the measure in increasing resilience. At the same time, the measure seems not to have restricted households' access to mortgages since the average growth rate of mortgages has remained positive since the introduction of the risk-weight floor ranging from 5% to 9% on an annual basis.</p> <p>The proportionality of the measure is ensured by its scope and design. By targeting residential mortgage exposures, it avoids any direct impact on other types of lending (such as credit to the non-financial corporate sector). By applying only to IRB banks, it does not affect banks that have opted for the standardised approach and therefore already apply higher risk weights on mortgage exposures.</p> <p>Finansinspektionen will monitor the effectiveness of the measure on the basis of the requirement's overall ability in achieving its core macroprudential objective, namely to strengthen and ensure the resilience of IRB banks exposed to Swedish mortgages. Such an assessment will, therefore, be based on the capital adequacy of these banks, especially in terms of their own funds, risk-weighted capital ratios and overall exposure to the Swedish mortgage and residential real estate markets. Part of this assessment will</p>
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<sup>14</sup> An ESRB analysis on RRE vulnerabilities in EEA countries is expected to be published late 2021.

<sup>15</sup> Since Sweden released the Countercyclical buffer in response to COVID-19, this figure is slightly higher than it would be with a Countercyclical Buffer in place.

	also include the monitoring of any potential unintended consequences on bank lending and sustainable profitability.
<b>2.5 Other relevant information</b>	<p>Finansinspektionen has taken measures over time to mitigate the vulnerabilities posed by high household debt. Thus, in addition to supply-side measures, such as the introduction of a risk weight floor for mortgages to strengthen the resilience of banks, Finansinspektionen has also taken a number of borrower-based measures with the objective of increasing the resilience of households:</p> <ul style="list-style-type: none"> <li>• In 2010, Finansinspektionen introduced a mortgage cap, according to which new loans collateralised by a home should not exceed 85% of the market value of the home<sup>16</sup>.</li> <li>• In June 2016, Finansinspektionen introduced an amortisation requirement following approval by the Government. According to this requirement, households borrowing more than 50% of the residential property's value must amortise at least 1% of their mortgage a year, while households borrowing more than 70% must amortise at least 2%<sup>17</sup>.</li> <li>• In March 2018, Finansinspektionen introduced a stricter amortisation requirement following approval by the Government<sup>18</sup>. According to this stricter requirement, households borrowing more than 4.5 times their annual income before tax must amortise an additional 1% of their mortgage per year<sup>19</sup>. These measures have been deemed necessary and appropriate to strengthen the resilience of households and possibly curb household indebtedness. Nevertheless, household credit growth has remained high.</li> </ul> <p>It should, however, also be noted that in April 2020 in light of the COVID-19 pandemic<sup>20</sup>, Finansinspektionen clarified (FFFS 2020:321) that a severe downturn in the Swedish Economy constituted special grounds for exemption from the amortisation requirements. This allowed certain borrowers to apply for a time-limited exemption from amortisation on the basis of economic impacts. This exemption ended on 31 August 2021.</p>
<b>3. Timing for the measure</b>	
<b>3.1 Timing for the decision on the measure</b>	20/11/2021

<sup>16</sup> It is possible to be granted an unsecured loan to finance the purchase of a home. For more information about the mortgage cap, see Finansinspektionen's general guidelines (FFFS 2010:2) regarding limitations to the size of loans collateralised by homes.

<sup>17</sup> Finansinspektionen's regulations regarding amortisation of loans collateralised by residential property (FFFS 2016:16).

<sup>18</sup> Regulations amending Finansinspektionen's regulations (FFFS 2016:16) regarding amortisation of loans collateralised by residential property (FFFS 2017:23).

<sup>19</sup> Both amortisation requirements apply to new mortgages.

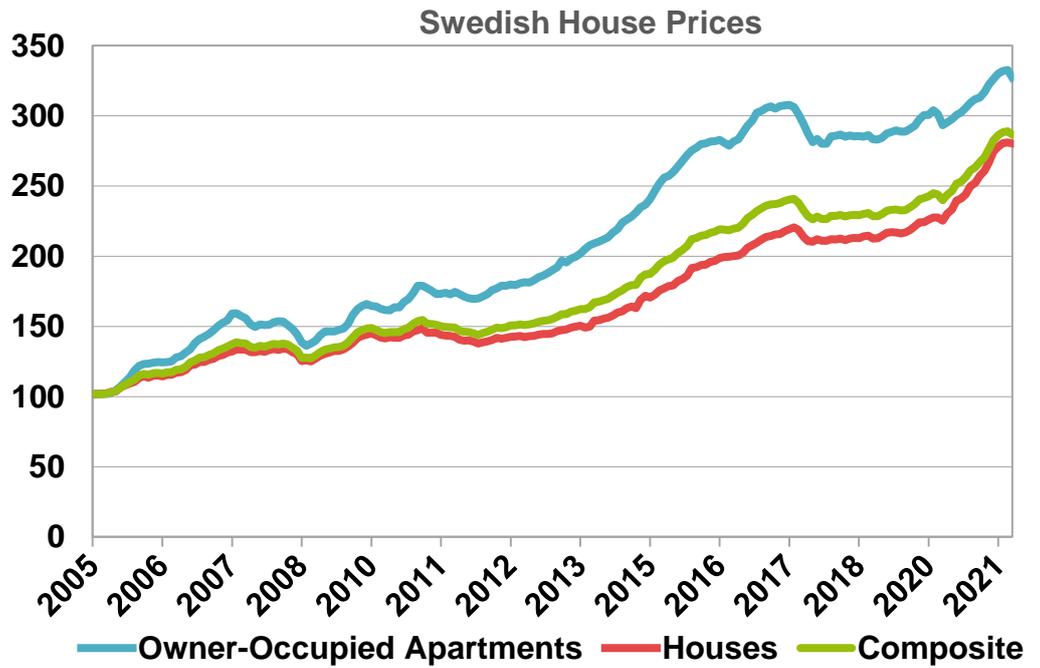
<sup>20</sup> <https://www.fi.se/en/published/news/2020/banks-may-now-grant-amortisation-exemption/>

<sup>21</sup> <https://www.fi.se/contentassets/a454d990de304261913a5396039526e5/fs2003-eng.pdf>

<b>3.2 Timing for publication</b>	21/11/2021
<b>3.3 Disclosure</b>	The extension of the measure will be announced via a release on FI's website. This will include justification for the measure.
<b>3.4 Timing for application (Article 458(4) CRR)</b>	31/12/2021
<b>3.5 Duration of the measure (Article 458(4) CRR)</b>	<p>The measure will be extended for a period of two years.</p> <p>Finansinspektionen will continue to monitor the measure regularly on the basis of its overall macroprudential (mitigating) impact on the observed build-up of systemic risks in the Swedish mortgage and residential real estate markets and take action if required. In line with Art 458(4) of the CRR2, Finansinspektionen will consider the withdrawal of the measure if risks were to materialise. Defining specific parameters for this is challenging ex-ante, but such an assessment will be based on guided discretion, taking into account the overall developments in the residential real estate market. This will include prices, developments in household indebtedness, the growth rate of mortgages, mortgage-linked indicators such as LTV and LTI (as also followed in the annual mortgage survey conducted by Finansinspektionen) and the resilience of the IRB banks in terms of capital strength, credit quality indicators and observed credit losses directly or indirectly linked to Swedish mortgages. Widespread residential real estate market dysfunction would certainly warrant an assessment.</p>
<b>3.6 Review (Article 458(9) CRR)</b>	The necessity and appropriateness of the measure will be reviewed in line with the requirements in Article 458 of the CRR2, with possible amendments of the measure implemented as soon as possible after identification. The review and assessment process would be along the same lines as described in section 3.5.
<b>4. Reason for the activation of the stricter national measure</b>	
<b>4.1 Description of the macroprudential or systemic risk in the financial system (Article 458(2)(a) CRR)</b>	<p><b><i>Sweden has experienced a significant and prolonged build up and intensification of systemic risk related to the housing market.</i></b></p> <p><b><i>Swedish banks are increasingly exposed to the residential property sector.</i></b> Today, the banking sector supplies essentially all residential mortgage loans in Sweden. IRB banks constitute around 96% of the total mortgage market, making them fundamental for the supply of mortgages to households. Mortgages account for 82% of monetary financial institutions' total lending to households and about 75% of the Swedish GDP. For the three major banks (SEB, Svenska Handelsbanken, Swedbank), mortgage loans to households constitute about 50% of their total lending, making them particularly sensitive to a negative development in the housing market.</p> <p><b><i>Residential real estate prices have increased substantially for two decades</i></b> (Diagram 1). House prices were more or less unaffected by the 2008 financial crisis, and the upswing has continued virtually uninterrupted. <b><i>House prices have doubled over the past decade or so</i></b>, and several international bodies have made the assessment that residential properties in Sweden may be overvalued. For example, the European Commission (2020) pointed out that the price-to-income ratio is still around 40% above</p>

the historical average<sup>22</sup>. The ESRB's valuation model also indicates that homes in Sweden are still overvalued by around 20-55% <sup>23</sup>, the second highest in Europe. In light of this, Finansinspektionen makes the assessment that there remains an increased risk for a substantial price correction in the housing market.

Diagram 1:



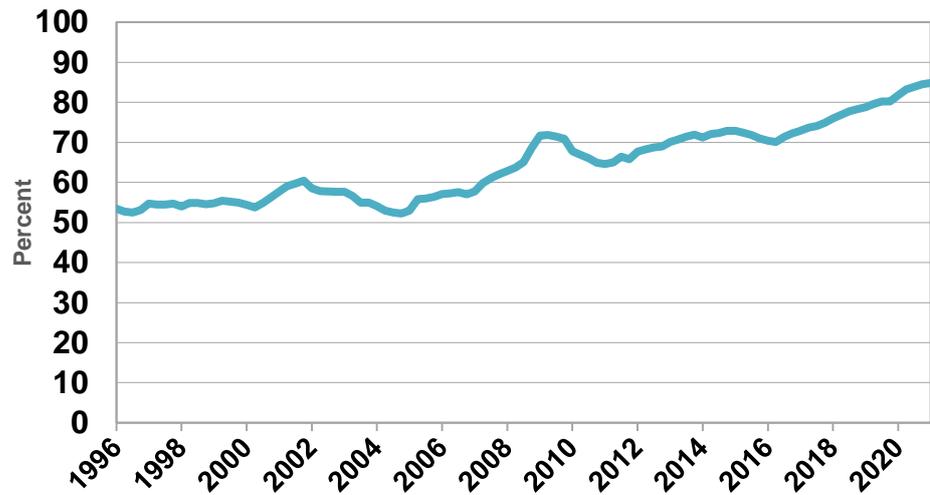
Source: Valueguards HOX-Index. Seasonally Adjusted. 100 = 31/12/2004

Diagram 2:

<sup>22</sup> Country Report Sweden 2020, European Commission, February 2020. <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0526&from=EN>

<sup>23</sup> ESRB Risk Dash Board, March 2021, chart 3.12. [https://www.esrb.europa.eu/pub/pdf/dashboard/esrb.risk\\_dashboard210406~8f2090e35d.en.pdf?9c4e43ab79a1581de7db104d9904bddd](https://www.esrb.europa.eu/pub/pdf/dashboard/esrb.risk_dashboard210406~8f2090e35d.en.pdf?9c4e43ab79a1581de7db104d9904bddd)

### Swedish Household Debt as % of Swedish GDP



Source: SCB

**The increase in house prices has been supported by good access to mortgages** (but not driven by any material watering down of origination lending standards, according to Finansinspektionen's mortgage supervision) **and the low interest rate environment. As a direct consequence, household debt has increased much faster than both household disposable income and GDP for a prolonged period** (Diagram 2).

Household debt has increased on average by 7.8% in annual terms over the period 1997-2020. By contrast, average disposable income has only increased by 4.2% in the same period. Household credit growth remained high at an annual growth rate of 5.9% in March 2021. Mortgages are the primary driver behind the development in household debt with an annual growth of 6.2% in March 2021<sup>24</sup>.

**Swedish households are thus borrowing more in relation to their income.** The aggregate DTI ratio had been rising for a long period of time prior to the introduction of the stricter amortisation requirement targeting high DTIs. Despite this, household aggregate debt still accounted for almost 200% of disposable income in March 2021, up from around 90% in 1997. Even without a further increase in house prices, the aggregate DTI ratio is expected to keep rising since households that are moving must do so in a market with substantially higher prices. Thus, despite already being high in a both historical and international perspective, the DTI ratio of Swedish households is expected to climb even higher, albeit at a much slower rate than if the stricter amortisation requirement had not been introduced.

**The majority of mortgages (53% as of March 2021) have floating interest rates.** In combination with high DTI, this makes Swedish households sensitive to sudden interest rate shocks that could arise as a result of turbulence in financial markets or a contraction in the supply of credit.

In addition, **many Swedish households are also relatively highly leveraged in relation to the value of the home.** Approximately 75% of outstanding mortgage volumes stem from households with LTV ratios greater than 50% as of March 2021. Mortgages make up

<sup>24</sup> More than 80% of household lending consists of mortgages.

	<p>the bulk of Swedish households' total debt, and incentives to amortise have long been weak due to both low interest rates and rather generous interest rate deductions, leaving many households highly indebted over time after the purchase of a new home.</p> <p>Construction of new housing, which has been suppressed for a long time and thereby contributed to the rising house prices, has picked up somewhat in recent years. Although an increased supply of housing may dampen house price growth, it may also exacerbate the problem. The greater supply of new residential properties may contribute to the increase in household mortgages since ownership of new homes is largely financed through loans to households. It also contributes to an increase in the aggregate DTI ratio in the short term. This leads to a higher intensity of the systemic risks linked to Swedish mortgages.</p> <p>The Swedish mortgage market is also facing structural changes in that new financial actors (with new business/finance models) are entering the market and supplying mortgages to households in direct competition with the traditional banks. Although the share of these actors is slowly increasing, the absolute market share is still very small at around 1% of total mortgage stock (this compares to slightly less than 80% for large and retail banks; slightly over 15% for foreign banks and around 4% for savings banks). While there may be positive effects from such changes, a more competitive environment in terms of a greater supply of mortgages and cheaper interest rates may further increase household indebtedness, thus intensifying the systemic risk linked to Swedish mortgages and the potential negative repercussions for the stability of the financial system in Sweden.</p> <p><b><i>In summary, a combination of vulnerabilities and elevated risks remain in Sweden.</i></b></p> <p>The large and concentrated banking sector is highly exposed to the residential real estate market. IRB banks, in particular, play a fundamental role in the supply of residential mortgages and are, at the same time, vulnerable to funding risks that are directly affected by the developments in these markets through the issuance of covered bonds backed by residential mortgage pools. Cyclical vulnerabilities reflected in the high housing prices and high and still rising household indebtedness can additionally exacerbate and intensify the identified systemic risk. If risks spill over from the residential real estate market, credit provision could be affected. There is therefore a need for resilience in the system in the form of high loss-bearing capacity for the banks in order to protect against a potential crisis situation that cannot be fully captured in bank credit risk models. The risk weight floor for Swedish mortgages is a measure that targets and contributes to the mitigation of this risk.</p>
<p><b>4.2 Analysis of the serious negative consequences or threat to financial stability</b></p> <p><b>(Article 458(2)(b) CRR)</b></p>	<p>Swedish mortgages constitute a large and important portion of the balance sheet of Swedish banks, and developments in the housing market have a considerable effect on household finances. In the event of a severe downturn in the Swedish economy or turbulence in the financial system, a negative dynamic may arise between the residential real estate market, the macroeconomic situation and bank behaviour in Sweden. This could have negative repercussions for the Swedish real economy and in the long run pose a threat to the stability of the banking system.</p> <p>IRB banks are crucial for the supply of mortgages to Swedish households and could react strongly to adverse events that put a strain on their business models or balance sheets. One example could be an initial negative shock in the housing market or increased financial stress either globally or domestically that affects the banks' funding costs or</p>

	<p>reduces their appetite for risk. Another example could be a more general macroeconomic downturn that leads to an increase in credit losses. If banks deleverage and reduce their supply of credit by raising interest rates or imposing substantially stricter lending standards, this could have a strong impact on both household demand for housing and household consumption, which would most likely amplify the negative situation. A self-reinforcing negative cycle could be triggered, which would have the potential of developing into a full-blown systemic crisis.</p> <p>Due to the rapid increase in house prices and household indebtedness over the past decade or so, Finansinspektionen makes the assessment that households and the housing market are more sensitive to adverse shocks in the supply of credit. The high percentage of variable rate mortgages means that potential transmission effects will spread swiftly. In addition, the magnitude of the potential corrections in the housing market as well as the potential reaction of households to such a situation are considered to have increased since both house prices and household debt are at high levels historically.</p> <p>If house prices fall, household wealth would decrease, thus leaving some households with particularly weak balance sheets. These households would experience a reduction in their ability or willingness to consume. Consumption, therefore, may be adversely affected by a fall in house prices, and highly indebted households in particular may react strongly and reduce their consumption during an economic downturn. Since the indebtedness of Swedish households has increased substantially, so has the potential impact of this indebtedness on economic development. Because household consumption constitutes over 40% of Swedish GDP, any adjustments in household spending would have a material impact on the economy at large.</p> <p>Falling house prices and reduced consumption would also likely lead to a decrease in investments, particularly in the construction sector, as uncertainty about house prices and the economic development increases. A severe downturn in the Swedish residential real estate market could thus rapidly spill over to the commercial real estate market and be further propagated through a negative impact on the solvency of banks and reduced macroeconomic confidence, which would further exacerbate the economic downturn. Swedish mortgages also make up the majority of the cover pools that serve as a basis for one of the banks' most important funding sources - covered bonds. A substantial price correction associated with a loss of confidence in the housing market could potentially lead to a dynamic with reduced risk appetite among banks and increased caution from investors with regards to the banks' covered bonds, affecting funding costs and further amplifying the reduction in credit supply and by extension the severity of the downturn. Last but not least, Swedish banks are also heavily interlinked with other countries in the Nordic and Baltic region, with market shares having been up to 64%.</p>
<p><b>4.3 Indicators prompting the use of the measure</b></p>	<p>The main indicators are:</p> <ul style="list-style-type: none"> <li>• Assessment of banks' exposures to real estate risks</li> <li>• Assessment of residential mortgages' systemic importance.</li> </ul>

	<ul style="list-style-type: none"> <li>• Development of household indebtedness, in levels and growth rates</li> <li>• Development of house prices</li> <li>• Developments of risk profiles, i.e. LTV, DTI/LTI, DSTI, total risk weights, banks' margins on mortgages, variable vs fixed interest rates etc.</li> </ul>
<p><b>4.4 Justification for the stricter national measure (Article 458(2)(c) CRR)</b></p>	<p><b><i>The objective of the measure is to increase and strengthen resilience in the Swedish banking sector given the prolonged and elevated risks in the household debt sector as well as the housing sector in Sweden.</i></b> Today, the additional capital in the banking system due to the risk weight floor for Swedish mortgages amounts to SEK 96 billion or just under 22% of the total capital requirement for the largest Swedish banks at the consolidated level. Needless to say, if this stricter measure were to be removed, risks would increase further since an important and sizable amount of loss-absorbing capital would be removed, leaving the banking sector exposed and vulnerable to any negative developments in the housing market or shocks to the macroeconomy at large. Thus, the absence of the measure would weaken and harm the resilience of the Swedish banking sector and affect financial stability in Sweden in an undesirable way.</p> <p>By extending the current risk weight floor within the framework of Article 458 of the CRR2, it makes it possible for the capital requirement and capital buffers built up to remain in place in order to be available to address and manage potential future credit losses in the housing market. This is crucial given that the vulnerabilities and systemic risks stemming from Swedish mortgages and the developments in the housing market remain elevated and are still intensifying. Moreover, the implementation of the measure through Article 458 aims to ensure a level playing field and, thereby, uphold resilience and safeguard financial stability. Reciprocity of the measure is crucial to ensure this, however.</p> <p>Capital add-ons that address risks linked to high household indebtedness and high house prices in Sweden are crucial to maintain the market's confidence in the ability of the Swedish banks to withstand a severe downturn in the housing market in particular or the Swedish real economy in general. Banks operating in the Swedish mortgage market rely quite extensively on market financing by issuing covered bonds as a way to finance mortgage lending. Deterioration in the banks' capital position or decreased capital requirements could lead to diminished market confidence and negative consequences for households, banks and the entire Swedish economy.</p> <p>Last, but not least, the measure is important from the perspective of the Nordic-Baltic region. The Swedish financial system is characterised by a high degree of interconnectedness with the financial systems of other Nordic and Baltic countries. Swedish banks operate in all countries in the region and hold large market shares in many of them. This is particularly the case in the Baltic countries, where multiple Swedish banks have been identified as O-SIIs. Thus, measures that ensure the resilience of credit institutions and strengthen the stability of the financial system in Sweden also act to ensure the financial stability in the Nordic-Baltic countries and thereby the stability of a substantial part of the EU financial system.</p>

*Specific Comments on the IRB models*

Overall, Finansinspektionen makes the assessment that Swedish banks using IRB models are, on the whole, not in breach of the requirements of the CRR2 when modelling their Swedish mortgage portfolios. The banks have modelled their estimates using long time series of internal historical data from their Swedish mortgage portfolios. The low risk weights are a result of the extremely low credit losses from Swedish mortgages that the banks have experienced ever since the financial crisis in the beginning of the 1990s, including during recent financial crises.

Finansinspektionen continues to review the IRB models for Swedish mortgages as part of the IRB Roadmap to ensure that the models comply with the newly clarified current rules. This work is seen as a long-term programme that should, in some, but not all cases, push up risk weights, but conclusions cannot be drawn ex-ante. This work is currently ongoing but the timeline for completion (expected by end 2022) runs past the point where an extension of the current 458 measure would need to be implemented in order to ensure risk coverage.

Furthermore, by implementing the higher risk weights through a floor, any increase in risk weights in the IRB models would not lead to any double counting. Rather, the impact of the floor decreases to the benefit of the modelled risk weights.

*Why other measures or legal bases are still not adequate*

Article 124 of the CRR

Article 124 enables the competent authority, on the basis of financial stability considerations, to increase the risk weights of banks that apply the standardised approach to their mortgage exposures. Just over 4% of the relevant Swedish residential mortgage market exposures are held by banks applying the standardised approach, whereas exposures that are risk-weighted according to the IRB approach constitute almost 96% of the total mortgage market. Article 124 of the CRR2 would therefore not be effective in meeting the objectives of the measure as its scope would be severely limited.

Swedish banks applying the standardised approach must assign a minimum risk weight of 35% to their residential mortgage exposures in Sweden, which is considered to be sufficient. This level stands in contrast to the average (exposure-weighted) risk weight of around 4.4% for IRB banks. Given the elevated and increasing macroprudential risks that have been identified, the measure therefore targets the IRB banks since they display relatively low IRB risk weights as a consequence of historically low credit losses on their domestic residential real estate credit portfolio. Because Article 124 of the CRR2 does not apply to credit institutions using the IRB approach, it is thus not relevant for achieving the aimed objective of the measure.

Article 164 of the CRR2

Article 164 enables the competent authority to increase, motivated by financial stability considerations, the exposure-weighted average LGD floor applied by IRB banks on their mortgage exposures. This measure has been considered as an option, but the assessment is that it would still not adequately and effectively address the identified systemic risk. Finansinspektionen makes the assessment that the objective is currently more effectively achieved through a risk weight floor that is the same for all banks.

Increasing the LGD floor for mortgages would serve to widen the differences in risk weights between IRB banks and result in a disproportionate increase in risk weights for some banks. As the IRB risk weight formula is a linear function of the LGD parameter, increasing the latter implies a bigger unwanted effect on the banks with the highest initial PDs. Thus, applying an average risk weight floor is assessed to be a more effective and appropriate way to address the issue of low IRB risk weights in view of the high and increasing systemic risk. It also avoids increasing the differences in risk weights between IRB banks. Moreover, in order to have the same impact as the proposed measure of a risk weight floor of 25%, the minimum average LGD would need to be raised by a multiple of around 5, i.e. to around 50% in comparison to today's 10%. This would also lead to any current differences in PDs and corresponding IRB risk weights between the banks being drastically amplified.

In addition, the proposed measure will not affect banks' internal models, as would be the case were Article 164 to be used. An increase in the average LGD floor under Article 164 would have implications beyond the calculation of risk-weighted exposure amounts and would, for example, also apply to the calculation of expected loss amounts as per Articles 158-159 of the CRR2.

Last, but not least, the use of Article 164 would add further complexity to the determination of capital requirements and could reduce the transparency of IRB risk weights for market participants.

#### Article 133 and 136 of Directive 2013/36/EU

Pursuant to Article 133, the systemic risk buffer can be used with the objective of preventing and mitigating macroprudential or systemic risk not covered by the CRR2 or Articles 130 and 131 of the CRD. While the Swedish mortgage market and the residential real estate sector in Sweden do display some vulnerabilities of a structural character, the aim of the risk weight floor for mortgages focuses on limiting the risk of a potential severe downturn in the housing market. It is thus a measure taken in response to the elevated and increasing risks in the residential real estate market.

In this context, it is also worth mentioning that Finansinspektionen already applies a systemic risk buffer of 3%, applicable to the three major banks<sup>25</sup>, which addresses the structural risks associated with the large, similar, and concentrated banking sector in Sweden.

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<sup>25</sup> SEB, Handelsbanken and Swedbank.

Moreover, the systemic risk buffer is designed so as to apply to all exposures of a credit institution. Applying this instrument, therefore, risks penalising other types of exposures, including the corporate ones, which do not give rise to the systemic risk linked to Swedish mortgages and residential real estate market. This would be neither effective nor appropriate in addressing the systemic risk concerned.

CRDV introduces the possibility of sectoral application of the systemic risk buffer, including for residential exposures. However, in order to replace the current floor measure, the applicable buffer rate would have to be set at around 100% for those exposures with the lowest risk weight in order to achieve a corresponding capital requirement as a risk weight floor of 25%. This would also not act as a floor, but rather as an add-on, and thus not take into account the current differences in risk weights for these exposures and would penalise most those with the risk weights closest to the floor. The size and action of the sectoral SyRB (sSyRB) required would thus be extremely challenging from both a communication and reciprocity perspective as well as being disproportionate and less effective than the current floor.

There is also the ongoing IRB review to consider in the context of a sSyRB. Once this review has been completed, a more thorough assessment can be conducted on fully updated risk weights regarding the potential to introduce a sSyRB.

As for Article 136 of the CRD, it enables the use of a countercyclical capital buffer to address cyclical systemic risks. The buffer is a time-varying capital requirement and applies to all credit exposures to the non-financial private sector located in the concerned Member State. The countercyclical buffer rate in Sweden was lowered to zero in March 2020 as a measure taken to address the potential impact from the COVID-19 pandemic. The buffer requirement was reduced to counteract the risk of more restrictive lending emerging and thereby help attenuate the economic downturn. The buffer was set at 2.5% immediately prior to its release and is expected to reach a positive neutral rate of 2% going forward<sup>26</sup>. It has now been announced that the CCyB will be raised from the current level of zero during the second half of 2021 as a step towards reinstating policy measures that were released as a consequence of the Covid Pandemic.

The countercyclical buffer is applied to all Swedish credit exposures and not just the mortgage exposures. In much the same way as the systemic risk buffer, were the countercyclical buffer applied to specifically target systemic risks linked to the Swedish mortgage and housing markets, this would have penalised other exposures which were not the target of the measure. Moreover, it would have penalised most the banks with the lowest share of relevant exposures in mortgage loans. Therefore, further increasing the countercyclical capital buffer would not adequately address the identified risk in an effective and proportionate way.

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<sup>26</sup> <https://www.fi.se/en/published/press-releases/2021/fis-approach-to-setting-the-countercyclical-capital-buffer/>

	<p><u>Other Measures</u></p> <p>It is also important to consider the future introduction of the output floor. The impact of the floor may be sufficient to address the risk currently targeted by the 458 measure but its implementation will not occur during this extension cycle.</p> <p><u>Summary</u></p> <p>As such, and on balance, the assessment is made that the 458 measure is most appropriate at this time.</p>
<b>5. Sufficiency, consistency and non-overlap of the policy response</b>	
<p><b>5.1 Sufficiency of the policy response</b></p>	<p>For macroprudential policy to be ‘sufficient’, the policy responses must be deemed to significantly mitigate, or reduce the build-up of, risks over an appropriate time horizon with a limited unintended impact on the general economy.</p> <p>Note that the ESRB will use this assessment of the macroprudential stance as relevant input in assessing the sufficiency of the macroprudential policy in the Member States.</p> <p>Please provide any additional information that the ESRB should consider in assessing the sufficiency of the policy response.</p> <p>Please see sections 2.4, and 4.1.</p>
<p><b>5.2 Consistency of application of the policy response</b></p>	<p>For a macroprudential policy to be ‘consistent’, the policy instruments must be deemed to meet their respective objectives, as outlined in ESRB/2013/1<sup>27</sup>, and they must be implemented in accordance with the common principles set out in the relevant legal texts.</p> <p>Note that the ESRB assessment of consistency will consider whether the same systemic risks are addressed in a similar way across and within the Member States over time.</p> <p>Please provide any additional information that the ESRB should consider in assessing the consistency of the policy response.</p> <p>Please see sections 1.2, 2.1 and 2.4.</p>
<p><b>5.3 Non-overlap of the policy response</b></p>	<p>For a policy instrument to be ‘non-overlapping’, it should aim to address a systemic risk that either differs from the risk addressed by other active tools in the same Member State, or be complementary to another tool in that Member State which addresses the same systemic risk.</p> <ul style="list-style-type: none"> <li>- Are other policy instruments used to address the <u>same</u> systemic risk? No.</li> <li>- If yes, please explain the need for more than one instrument to address the same systemic risk and how the different instruments interact with each other.</li> </ul>

<sup>27</sup> Recommendation of the European Systemic Risk Board of 4 April 2013 on intermediate objectives and instruments of macro-prudential policy (ESRB/2013/1) (OJ C 170, 15.6.2013, p. 1).

## 6. Cross-border and cross-sector impact of the measure

**6.1 Assessment of cross-border effects and the likely impact on the Internal Market**  
**(Article 458(2)(f) CRR and Recommendation ESRB/2015/2<sup>28</sup>)**

An extension of the measure will continue to secure the resilience of the Swedish banking sector and, through a stable financial environment, help support economic growth. Finansinspektionen does not expect the measure to have a negative impact on the internal market that would outweigh the financial stability benefits resulting from a reduction of the identified risk.

The measure applies today to all IRB banks with Swedish mortgage exposures. As mentioned earlier, all significant lenders in the Swedish mortgage market are consolidated in Sweden, except for the Swedish branches of Danske Bank and Nordea, for which Finanstilsynet and Finanssivalvonta respectively already reciprocate the current measure. Retention of this reciprocity is key in order to avoid leakages and regulatory arbitrage. In this context, Finansinspektionen emphasises that a Memorandum of Understanding (MoU) on prudential supervision of significant branches applies to the Nordic-Baltic macroprudential network<sup>29</sup>. The competent authorities in the region acknowledge the importance of reciprocity of macroprudential measures in general, and in particular as a means to prevent banks from circumventing the measures by transferring operations to other countries. The authorities, thereby, recognise the importance of reciprocity as a means of ensuring a level playing field and a well-functioning internal market. The authorities also acknowledge Recommendation ESRB/2015/2 as a minimum standard for reciprocity in macroprudential matters. Note also that an additional MoU on cooperation and coordination on cross-border financial stability was signed in 2018 by the ministries of finance, financial supervisory authorities, central banks and resolution authorities of the Nordic Baltic countries<sup>30</sup>.

The Nordic and Baltic countries have common financial stability interests stemming from inter-linkages in the financial system in the region. This has resulted in a close cooperation between the countries to facilitate and support the measures taken by reciprocating them even long before there was a MoU in place.

Finansinspektionen assesses that the continued presence of the measure will have a positive impact on the Internal Market. The positive consequences are the direct result of the financial stability benefits in terms of reducing and mitigating the macroprudential or systemic risk identified. This is increasingly important in the context of the financial interlinkages in the Nordic-Baltic region and the enhanced cross-border dimension of the Swedish financial sector.

<sup>28</sup> Recommendation of the European Systemic Risk Board of 15 December 2015 on the assessment of cross-border effects of and voluntary reciprocity for macroprudential policy measures (ESRB/2015/3) (OJ C 97, 12.3.2016, p. 9).

<sup>29</sup> See <https://www.fi.se/contentassets/dbde31519a7543a18808d3db1deacb4e/mou-filialer-nordiska-lander-2016-12-19n.pdf> and [https://www.fi.se/contentassets/282187c73694429cbfddce78f001d556/mou\\_ecb\\_2017-05-29ny3.pdf](https://www.fi.se/contentassets/282187c73694429cbfddce78f001d556/mou_ecb_2017-05-29ny3.pdf)

<sup>30</sup> See <https://www.fi.se/en/published/news/2018/new-nordic-baltic-memorandum-of-understanding>

<p><b>6.2 Assessment of leakages and regulatory arbitrage within the notifying Member State</b></p>	<p>Finansinspektionen will monitor closely the impact of the measure on other sectors of the Swedish financial system. As mentioned earlier, the mortgage market in Sweden has begun to experience change in recent years. These changes concern both the traditional financing model and the actors involved in the mortgage lending chain. Insurance companies and pension funds have, for instance, shown interest in investing directly in mortgages through mortgage funds alongside their traditional role as investors for the covered bonds issued by banks. Such a shift in the value chain in the Swedish mortgage market could mean that non-bank companies could take on a larger role, although we have yet to see any significant changes. However, there is a need to monitor these developments closely in order to continuously assess the effectiveness of the measure.</p>
<p><b>6.3 Request for reciprocity by other Member States</b>  (Article 458(8) CRR and Recommendation ESRB/2015/2)</p>	<p>Do you intend to ask the ESRB to issue a recommendation to other Member States to reciprocate the measure in accordance with Article 458(8) CRR?</p> <p>Yes</p>
<p><b>6.4 Justification for the request for reciprocity by other Member States</b>  (Article 458(8) CRR and Recommendation ESRB/2015/2)</p>	<p>Finansinspektionen requests that the ESRB recommends that other Member States continue to reciprocate 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 Sweden. Reciprocity requests will also be sent directly to the relevant macroprudential authorities of the most affected Member States where needed. Finansinspektionen proposes retaining the current institution-level materiality threshold. Reciprocation will ensure the effectiveness of the measure in achieving the macroprudential goal of safeguarding the resilience of the Swedish banking sector with regard to risks in the residential real estate and mortgage markets.</p> <p>As described above, the continued reciprocation of the proposed measure is imperative to avoid any potential leakages or regulatory arbitrage. This is especially the case given that Nordea's branch is one of the largest credit institutions in Sweden.</p>
<p><b>7. Miscellaneous</b></p>	
<p><b>7.1 Contact person(s)/mailbox at notifying authority</b></p>	<p>Katja Moll Forsström +46 8 4089 8219 katja.mollforsstrom@fi.se</p> <p>Sara Ehnlund Martinussen +46 8 4089 8409 sara.ehnlundmartinussen@fi.se</p>

<b>7.2 Any other relevant information</b>	Links to other relevant documents Risk Weight Floor for Swedish Mortgages, May 2013, FI. <a href="https://www.fi.se/contentassets/bf9750a907a14f9aac761bb28f0975db/riskviktsgolv-svenska-bolan-12-11920-21maj2014-eng.pdf">https://www.fi.se/contentassets/bf9750a907a14f9aac761bb28f0975db/riskviktsgolv-svenska-bolan-12-11920-21maj2014-eng.pdf</a> Capital Requirements for Swedish Banks, September 2014, FI. <a href="https://www.fi.se/contentassets/fe6819ea1106490cb986a85bff6dd03d/kapitalkrav-svenska-banker-140910enny.pdf">https://www.fi.se/contentassets/fe6819ea1106490cb986a85bff6dd03d/kapitalkrav-svenska-banker-140910enny.pdf</a>
<b>7.3 Date of the notification</b>	Please provide the date on which this notification was uploaded/sent. 20/09/2021