21 June 2018

Assessment of the Swedish notification in accordance with Article 458 of Regulation (EU) No 575/2013 concerning the application of a stricter national measure for residential mortgage lending

Introduction

On 24 May 2018 Sweden's Finansinspektionen (FI) officially notified the European Systemic Risk Board (ESRB) in accordance with Article 458(2)(d)(vi) of the Capital Requirements Regulation (CRR)[1] of its intention to adopt a national measure limiting risks stemming from Swedish mortgage loans. FI is the designated authority in charge of the application of Article 458 of the CRR in Sweden[2]. Pursuant to Article 458(4) of the CRR, the ESRB must provide the Council, the European Commission and Sweden with an opinion within one month of receiving the notification. The opinion must be accompanied by an assessment of the national measure in terms of the points mentioned under Article 458(2) of the CRR.

The ESRB's assessment focuses on the net benefits of the national measure for maintaining financial stability. The procedural framework for the provision of opinions under Article 458 of the CRR is clarified in Decision ESRB/2015/4[3]. In particular, the ESRB has assessed the rationale and merit of the measure against the following criteria.

- **Justification:** Has there been a change in the intensity of systemic risk and does it pose a threat to financial stability at the national level? Can alternative instruments provided for under the Capital Requirements Directive (the CRD IV)[4] and the CRR adequately address the risk, taking into account their relative effectiveness?
- **Effectiveness:** Is the measure likely to achieve its intended objective?
- **Efficiency and suitability:** Will the measure achieve its objective in a cost-efficient way, i.e. are the instrument and calibration appropriate?
- **Proportionality and impact on the internal market:** Is there an appropriate balance between the costs resulting from the measure and the problem it aims to address, taking into account any potential cross-border spillover effects? Where appropriate, the ESRB may suggest amendments to the measure to mitigate potential negative spillover effects.

---

[1] Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (OJ L 176, 27.6.2013, p. 1).

[2] According to Chapter 1, Section 6 second paragraph of the Special Supervision of Credit Institutions Act (2014:968) Finansinspektionen has the power to take measures related to Article 458 of the CRR.

[3] Decision of the European Systemic Risk Board of 16 December 2015 on a coordination framework for the notification of national macroprudential policy measures by relevant authorities, the issuing of opinions and recommendations by the ESRB, and repealing Decision ESRB/2014/2.

[4] Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC (OJ L 176, 27.6.2013, p. 338).

The ESRB's assessment draws extensively on information provided by, and discussions with, the FI and its staff. The ESRB has also relied on the assessment carried out prior to issuing its warning of 22 September 2016[5].

Section 1: Description and background of the measure

1.1 Description of the measure

The draft measure consists of a risk weight floor of 25% for Swedish mortgage loans applied to credit institutions that use the internal ratings-based (IRB) approach. The draft measure targets domestically authorised credit institutions[6], or a subset of those institutions, and falls under Article 458(2)(d)(vi) of the CRR. The measure is intended to mitigate the changes in the intensity of risk and concerns risk weights for targeting asset bubbles in the residential and commercial real estate sector. The measure is scheduled to enter into force on 31 December 2018, and thus affects the capital requirements of banks for the fourth quarter of 2018. Since the impact of the draft measure is, on average, more than 25% of the risk weights for those banks concerned which use the IRB approach, Article 458(10) of the CRR does not apply.

The mortgage loans targeted by the measure consist of retail exposures[7] to Swedish obligors collateralised by immovable property[8] (referred to in this assessment as "Swedish mortgage loans"). The exposure class largely consists of mortgages granted to private individuals, but can also include certain exposures to small businesses with loans collateralised by real estate. Additionally, it may include certain exposures collateralised by real estate other than residential property.

The draft measure applies to credit institutions that have authorisation to use the IRB approach ("IRB credit institutions") and have an exposure to Swedish mortgage loans. This includes subsidiaries based in Sweden of foreign credit institutions. FI aims to cover branches of foreign credit institutions and direct cross-border exposures of foreign banks by requesting reciprocation of the measure. Credit institutions using the standardised approach to calculate the capital requirement for credit risk are not affected. That requirement applies to the individual institutions and at the consolidated level.

The 25% floor applies to the exposure-weighted average risk weight for the portfolio of Swedish mortgage loans mentioned above. The exposure-weighted average risk weight is calculated by dividing the portfolio's risk-weighted exposure amount (as calculated in accordance with Articles 154 and 154(3) of the CRR) by the exposure at default amount (EAD).

The draft measure will be introduced by individual decisions issued by FI to Swedish IRB credit institutions. According to FI, its mandate to issue these individual decisions derives directly from the CRR under Swedish law. No further national legislative measures are required to implement the measure. The individual decisions will also repeal the Pillar 2 measure which addresses the same systemic risk, in order to ensure that no regulatory gaps or overlaps occur.

[5] See the Warning of the European Systemic Risk Board of 22 September 2016 on medium-term vulnerabilities in the residential real estate sector of Sweden (ESRB/2016/11) and the ESRB's report entitled *Vulnerabilities in the EU residential real estate sector*, November 2016.

[6] For the purpose of this assessment the term "bank" has the same meaning as "credit institution" as defined in Article 4 of the CRR.

[7] Article 147(2)(d) of the CRR.

[8] Article 154(3) of the CRR.

The ESRB has also received a preliminary request from FI to recommend the reciprocation of the draft measure by other Member States under Recommendation ESRB/2015/2[9]. This request will be considered by the ESRB following completion of the notification and approval procedure and provided that the draft measure has been effectively adopted by the Swedish authorities. A possible ESRB Recommendation for reciprocation is therefore not considered in this opinion, although the ESRB would be open to it in principle.

1.2 Background of the measure

FI has been applying a risk weight floor for Swedish mortgage loans within the Pillar 2 framework since May 2013. The floor was introduced as part of the supervisory capital assessment under Pillar 2 to cover risks that are not fully captured by the regulatory capital requirements. The Pillar 2 requirement is set and evaluated annually as part of the supervisory review and evaluation process (SREP). The scope of the draft measure is identical to that of the Pillar 2 measure.

While the Pillar 2 measure has been formally implemented as guidance, all IRB credit institutions in Sweden comply with it. If an institution failed to comply, FI would issue a formal decision on additional own funds requirements.[10] Initially, the average risk weight at portfolio level was set at 15% but was increased to 25% in September 2014 on systemic risk grounds.

FI has indicated that its primary motivation for introducing the Pillar 2 measure was the increase in real estate prices and household indebtedness. Mortgage loans account for the majority of the total debt of Swedish households and a large share of the total assets of Swedish credit institutions. A shock to house prices or interest rates could cause serious problems for both the financial system and the Swedish economy at large. Therefore, the resilience of credit institutions is important so that they can withstand shocks without excessively restricting the credit supply.

Furthermore, the average risk weight at the portfolio level did not fully capture the credit risk in the Swedish mortgage loan market. Credit losses realised on Swedish mortgage loans have been very low for a long period of time. Therefore, IRB models – whose parameters are based on historical observations – do not fully reflect the systemic risk related to increased house prices and households' indebtedness.

Structural changes in the Swedish banking sector might reduce the effectiveness of the Pillar 2 measure currently in place. Nordea Bank AB decided on 15 March 2018 to move its head office from Sweden to Finland.[11] The move will have a major impact on the distribution of responsibility for supervision and crisis management between the authorities in the affected countries. In particular, the Pillar 2 measure applicable to Swedish mortgage loans in Sweden will not apply to Nordea after the date of the relocation (planned for 1 October 2018). Nevertheless, the scope of Nordea's operations in Sweden is not expected to change.

Therefore, FI is of the view that failure to adopt the proposed macroprudential measure would aggravate the systemic risk in Sweden.

The draft measure is part of a suite of macroprudential instruments actively used by the Swedish authorities. Currently, the main macroprudential measures in use are the following.

[9] 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.

[10] See Section 2.8 (pp. 28-35) in "Capital Requirements for Swedish Banks", Finansinspektionen, September 2014.

[11] Press release, Nordea, 15 March 2018.

- A fully loaded capital conservation buffer of 2.5%.
- A countercyclical buffer, with a rate currently set at 2.0 % (applied since March 2017).
- A systemic risk buffer of 3%, which applies to the four largest banks[12] to address the risk of a large, concentrated and interconnected banking system.
- An O-SII buffer of 2% applicable to the four largest banks, which have been identified as other systemically important institutions, and a 1% G-SII, which applies to Nordea Bank AB. Only the higher of the systemic risk buffer and the buffers for systemically important institutions applies to each bank.
- An additional buffer of 2% for systemic risk is imposed on these systemically important institutions via Pillar 2.
- A Pillar 2 requirement for the 25% risk weight floor of Swedish mortgage loans.
- An 85% loan-to-value (LTV) limit applicable since 2010 to new mortgage loans.
- Amortisation requirements on new mortgage loans applicable since 2016 for loans with high LTVs. In 2018 an additional amortisation requirement was introduced for new loans with a high loan-to-income (LTI) ratio.

Section 2: Analysis of the underlying systemic risks

In its warning of 22 September 2016[13], the ESRB considered the main medium-term vulnerabilities in the residential real estate (RRE) sector in Sweden to be increasing residential property prices, resulting in an overvaluation of the market, as well as high and increasing indebtedness, especially among some groups of households. The ESRB further mentioned that if risks were to materialise, there could be potential spillover effects to other countries in the Nordic-Baltic region.

2.1 Vulnerabilities in the residential property sector

RRE prices in Sweden have been increasing over a long period and residential property appears to be significantly overvalued. RRE price increases in Sweden have been among the highest in the EU, with the three-year price change up to the third quarter of 2017 exceeding 30%.[14] In recent months, price growth has slowed and RRE prices experienced a contained correction towards the end of 2017.[15] Widely used indicators of potential overvaluation, such as the price-to-income ratio and the price-to-rent ratio, as well as model-based approaches show signs of significant overvaluation in the RRE market, in the range of 30% to 65%.[16] In view of these price developments, there is a non-negligible risk of a stronger price correction in the RRE sector.

The increase in house prices has been supported by good access to mortgage loans and the low interest rate environment. In recent years the low interest rate environment has

---

[12] Handelsbanken, Nordea, SEB and Swedbank.

[13] See the Warning of the European Systemic Risk Board of 22 September 2016 on medium-term vulnerabilities in the residential real estate sector of Sweden.

[14] See the ESRB risk dashboard, March 2018, Chart 3.13.

[15] See “Financial Stability Report”, Sveriges Riksbank, 2018:1, Chart 1:2.

[16] See the ESRB risk dashboard, March 2018, Chart 3.12. In particular, the Bayesian estimated inverted demand model indicates the overvaluation of 35% for Q3-2017, which is the highest value in the EU. For a detailed description of the methodology, see Financial Stability Review, ECB, November 2015, Box 3.

contributed to RRE price increases and growing credit dynamics at the pace of approximately 7% per annum.[17] Consequently, household indebtedness, as measured, for example, by the debt-to-income (DTI) ratio, continued to increase from already elevated levels, as indicated by a substantial share of new mortgages (40%) granted with a relatively high LTV ratio (70%-85%).[18] Currently, almost half of the existing stock of mortgage loans has an LTV ratio of 50%-70%.[19] The growth of house prices in relation to the disposable income stands currently close to its historical maximum reached in the late 1970s.[20] Mortgage lending has also been supported to some extent by new market players, although their importance remains relatively limited.[21]

The majority of residential mortgages have floating interest rates, which makes the RRE market more sensitive to interest rate changes. Approximately 70% of residential mortgage loans have floating interest rates. In combination with elevated household indebtedness, this makes Swedish households sensitive to interest rate increases, for example related to changes in the global economic outlook, or sudden interest rate shocks that could be linked to financial market turbulences.

2.2 Vulnerabilities in the household sector

The main vulnerability of the Swedish financial system is the high and increasing level of household indebtedness. Household indebtedness has been continually increasing in recent years, alongside strongly rising RRE prices. The ratio of household debt to gross disposable income was 174% in the fourth quarter of 2017; this is among the highest in the EU and has been growing in recent years, largely driven by strong residential mortgage borrowing.[22] For example, since 2012 average household debt has increased by approximately 36%, while average disposable income has increased by only 13%.[23] In particular, households with mortgage loans have an average DTI ratio of 338%, approximately 30% of these households have a DTI ratio above 400%, and 13% have a ratio in excess of 600%.[24]

Although households' margins are sound, they are at risk in a scenario of rising interest rates. On average, households with new mortgage loans have a surplus of approximately 40% of their disposable income after mortgage expenses, which is to some extent a reflection of low interest rates.[25] Given that the majority of mortgage loans have floating interest rates,

[17] See, for example, "Financial Stability Report", Sveriges Riksbank, 2018:1, "Stability in the Financial System", Finansinspektionen, 29 May 2018, as well as the report of the Joint Task Force of the ESRB Advisory Technical Committee, the ESRB Advisory Scientific Committee and the ESCB Financial Stability Committee, entitled "Macroprudential policy issues arising from low interest rates and structural changes in the EU financial system", November 2016. For an overview of annual growth rates of loans of monetary financial institutions (MFIs) to households, see ESRB risk dashboard, March 2018, Chart 3.1.

[18] See "Stability in the Financial System", Finansinspektionen, 29 May 2018, Chart 49. The average LTV ratio of new loans is ca. 60%. See also "Financial Stability Report", Sveriges Riksbank, 2018:1, Chart 2:1, ESRB risk dashboard, March 2018, Chart 2.10.

[19] "The Swedish Mortgage Market", Finansinspektionen, 4 Apr 2018, Chart 11.

[20] See "The Swedish Mortgage Market", Finansinspektionen, 4 Apr 2018, Chart 2.

[21] See also "New players on the mortgage market", in "Financial Stability Report", Sveriges Riksbank, 2018:1, as well as "New business models on the mortgage market", in "Stability in the Financial System", Finansinspektionen, 29 May 2018.

[22] See the ESRB risk dashboard, March 2018, Chart 2.10.

[23] "The Swedish Mortgage Market", Finansinspektionen, 4 Apr 2018, Table 3.

[24] See "Financial Stability Report", Sveriges Riksbank, 2018:1, Chart 2:1, data as of Sep 2017.

[25] See "The Swedish Mortgage Market", Finansinspektionen, 4 Apr 2018, Chart 27. The average mortgage interest rate is approximately 2% (this was the average for the years 2015-2017), see "The Swedish Mortgage Market", Finansinspektionen, 4 Apr 2018, note to Chart 28.

mortgage expenses and household indebtedness are sensitive to interest rate changes. For example, if current interest rates were to increase by 3 percentage points, the interest-to-income ratio of Swedish households would increase from the current 4% to 11%.[26] Already at the present interest rates, approximately 9% of households with new mortgages have less than SEK 5,000 left over every month, given their actual interest rate and amortisation payments and after accounting for living expenses. Furthermore, if interest rates were to increase to approximately 7%, the share of households with a surplus of less than SEK 5,000 each month would be 18% of households with new mortgage loans.[27]

Credit growth has remained strong – at the rate of approximately 7% per annum – in recent years, with signs of increasing risk exposures related to high household indebtedness. Although household indebtedness and RRE prices have stood at already very elevated levels in recent years, credit growth in the RRE sector remains relatively high, also in comparison with other EU countries.[28] In some regions of Sweden, credit expansion seems to be accompanied by an increase in risk exposures. For example, in 2017 approximately 30% of new mortgage loans in Stockholm were granted to households with debt larger than 4.5 times their gross income, an increase from approximately 20% in 2013.[29] While the amortisation requirement introduced in Sweden in 2016 contributed to an increase in amortisation rates and a reduction of DTI ratios, as well as a reduction of growth rates of new mortgages and house prices, still around 20% of households with mortgage loans are not making amortisation payments.[30]

2.3 Vulnerabilities in the banking sector

Swedish banks are significantly exposed to the RRE sector. The banking sector supplies the large majority of residential mortgage loans in Sweden. According to FI data, IRB credit institutions account for 95% of the total mortgage market, making them fundamental for the supply of mortgages to households. Mortgages account for 82% of total lending by monetary financial institutions to households, and about 68% of Swedish GDP. For the four major banks, mortgage loans to households constitute 50% of their total lending, making them vulnerable to negative developments in the RRE market.

Overall, the Swedish banking sector has a relatively good solvency position and risk weights for mortgage loans are relatively high, as compared to other Member States with vulnerabilities in the RRE sector, owing to the floor of 25% currently applied via Pillar 2. The average Tier 1 capital ratio of the Swedish banking system is 24%, which is high in comparison with the EU average.[31] Swedish banks also have a low ratio of non-performing loans, at 1% on average.[32] The average IRB risk weight for mortgage loans in Sweden is 25% (applied via Pillar 2), while the risk weights in other EU countries with vulnerabilities in the RRE sector range

[26] See "Financial Stability Report", Sveriges Riksbank, 2018:1, Chart 2:6 for data for households with loans.

[27] See "The Swedish Mortgage Market", Finansinspektionen, 4 Apr 2018, Chart 28.

[28] See the ESRB risk dashboard, March 2018, Chart 3.1.

[29] See "The Swedish Mortgage Market", Finansinspektionen, 4 Apr 2018, Chart A2.3.

[30] See "The Swedish Mortgage Market", Finansinspektionen, 4 Apr 2018, Charts 20, 25, as well as the box entitled "Amortisation requirement had an impact on household behaviour". For an overview of other policy measures taken to address the vulnerabilities related to the household sector, see Section 3f of this document.

[31] See "Risk dashboard", European Banking Authority, 2017-Q4, Section 4.1.

[32] See the article entitled "Stability in the Financial System", Finansinspektionen, 29 May 2018, Chart 17.

from 11% in the United Kingdom to 25% in Sweden.[33] For comparison, the risk weight floor in the standardised approach is 35%.[34]

The bank funding structure may constitute vulnerability on the liquidity side, also in view of the high degree of interconnectedness and exposure to the RRE market via covered bonds. At the same time, Swedish banks have a large share of wholesale funding and the second-largest loan-to-deposit ratio in the EU, amounting to over 200%.[35] The major banks are closely interconnected and have significant exposures towards each other, especially in the form of securities. For example, Swedish banks are among the largest owners of each other's covered bonds.[36] Consequently, adverse developments in the Swedish RRE sector could affect Swedish banks beyond their direct loan exposures through both the liability side, in the form of funding constraints, and via the asset side, in the form of the re-pricing of covered bonds.

Section 3: Effectiveness and efficiency of the measure

3.1 How the measure addresses the identified risk

The measure should be considered in view of the existing risk weight floor for residential mortgage exposures of IRB credit institutions currently applied via Pillar 2. In addition, it is a part of a wider set of initiatives that have been introduced over several years to address concerns about the developments in the Swedish RRE sector (see Section 1.2).

Due to structural changes in the Swedish banking sector, the proposed measure is expected to be appropriate to address the risks related to residential mortgage exposures of IRB credit institutions. As described in Section 1.2, due to the planned move of the head office of Nordea Bank AB from Sweden to Finland, the Pillar 2 measure for Swedish mortgage loans applicable in Sweden will no longer apply to Nordea Bank AB from 1 October 2018, as it will be a branch. In addition, a requirement under Pillar 2 imposed on the Swedish subsidiary Nordea Hypotek AB would not be automatically applicable to Nordea's consolidated situation without reciprocity. Nevertheless, the scope of Nordea's operations in Sweden is not expected to change. Consequently, the effectiveness of the Pillar 2 measure currently in place could be reduced, which motivates the introduction of the risk weight floor through Pillar 1.

The calibration of the minimum risk weight at 25%, which is kept unchanged in the proposed measure, was assessed by the ESRB in November 2016 as an appropriate and sufficient policy measure related to the banking stretch of the RRE vulnerabilities in Sweden. The risk weight floor was introduced in May 2013 and recalibrated to 25% in September 2014.[37] Due to the design of the draft measure, which changes the application of the risk weight floor from Pillar 2 to Pillar 1 keeping the calibration constant, the effect on the capital requirements in nominal terms is negligible.[38] In its report "Vulnerabilities in the EU residential real estate

[33] See "Vulnerabilities in the EU residential real estate sector", European Systemic Risk Board, Nov 2016, Table 2.3. Since the publication of the ERSB's warning, several countries have introduced higher risk weights for IRB credit institutions.

[34] The total share of Swedish banks applying the standardised approach in the Swedish mortgage market is about 5%.

[35] See the ESRB risk dashboard, March 2018, Chart 4.7 and "Stability in the Financial System", Finansinspektionen, 29 May 2018, Charts 25-26.

[36] See "Financial Stability Report", Sveriges Riksbank, 2018:1, Chart 2:9.

[37] For details on the calibration, see "Risk Weight Floor for Swedish Mortgages", Finansinspektionen, May 2013 and "Capital Requirements for Swedish Banks", Finansinspektionen, September 2014.

[38] See also "Changed method for the application of the risk weight floor for Swedish mortgages", Consultation memorandum, Finansinspektionen, 28 Mar 2018, Finansinspektionen Ref. 18-6251, Section 3.1.

sector" of November 2016, the ESRB assessed policy measures related to the banking stretch of the RRE vulnerabilities in Sweden as appropriate and sufficient at that time, particularly in view of the fact that the Swedish banking sector is well capitalised compared with its European peers. Given the elevated and increasing vulnerabilities related to the RRE sector in Sweden, the ESRB continues to monitor the risk developments in this area.

The draft measure does not primarily seek to address the risks related to the key vulnerabilities of high and increasing household indebtedness, as well as RRE price developments. The risks related to household and collateral aspects were identified in the ESRB's warning as the main medium-term vulnerabilities related to the RRE sector in Sweden. These risks are addressed indirectly by maintaining the resilience of banks in the event of a possible downturn in the RRE sector and declining credit quality of residential mortgage loan portfolios.

3.2 How the measure relates to possible alternatives

As required under Article 458 of the CRR, this section assesses whether other macroprudential instruments available under the CRD IV and the CRR could adequately address the increase in systemic risk, taking into account their relative effectiveness. These instruments need to be considered before resorting to Article 458 of the CRR to adopt stricter national measures.

a) Increasing the risk weights for banks applying the standardised approach to credit risk (Article 124 of the CRR)

Competent authorities can impose higher risk weights for exposures secured by mortgages on credit institutions that apply the standardised approach, on the basis of financial stability considerations. Competent authorities can set a risk weight for exposures secured by mortgages on residential immovable property, from 35% to up to 150%. Additionally, they can apply stricter criteria for the application of the 35% risk weight.

As 95% of the Swedish mortgage market exposures are held by credit institutions applying the IRB approach and the IRB risk weights are relatively low, Article 124 of the CRR would not be effective in meeting the measure's objectives. Furthermore, the risk weight of 35% under the standardised approach is considered sufficient compared with the proposed risk weight floor of 25% for IRB credit institutions.

b) Increasing the loss given default (LGD) floor for banks applying the IRB approach for credit risk (Article 164 of the CRR)

Competent authorities can set higher minimum values of exposure-weighted average LGD for exposures secured by property, on the basis of financial stability considerations. The exposure-weighted average LGD for all retail exposures secured by residential property and not benefiting from guarantees from central governments must not be lower than 10 %.[39] The LGD is one of the parameters used in the risk-weight function. Increasing the LGD indirectly increases the risk weight and the resulting capital requirements.

The average risk weights applied by Swedish IRB credit institutions range from 3.4% to 12.5%; this is due to very low credit losses observed over a long period of time. Furthermore, the average risk weight of the four largest Swedish banks is only 4.2%. Credit risk models for Swedish mortgage loans often generate such low risk weights due to very low historical credit losses. FI considers that such low risk weights do not fully capture the potential credit losses of Swedish mortgages in a severe downturn scenario.

[39] Article 164(4) of the CRR.

The differences in the estimation of risk weights reflect the individual conservativism of credit institutions in the estimation of the probability of default (PD), and do not necessarily reflect differences in the risk profile of borrowers. The low levels of historic credit losses affect both the estimation of PDs and LGDs in the IRB approach. Individual credit institutions apply a different degree of conservatism when estimating the PDs of borrowers. FI considers that the varying risk weights may at least be partly due to such differences in levels of conservativism, although the risk profile of the underlying exposures may in fact be quite similar.

Increasing the LGD floor for mortgages would widen these differences in risk weights between IRB credit institutions and result in a disproportionate increase in risk weights for some of them. As the IRB risk-weight formula is a linear function of the LGD parameter, increasing the latter leads to a larger increase in risk weights for more conservative banks with higher PD estimates. Moreover, in order to achieve the same impact as a 25% risk weight floor, the LGD floor would need to be set above 50% (i.e. a five-fold increase). In FI's view, such an increase is not justified.

Consequently, the risk weight floor addresses the objective more adequately and effectively than a measure under Article 164 of the CRR. It avoids a disproportionate increase of risk weights among IRB credit institutions. Furthermore, an increase in the LGD floor would impact the calculation of expected loss under Articles 158 and 159 of the CRR. Additionally, it would add further complexity and reduce market transparency of IRB risk weights for market participants. In FI's view, systemic risks should not be explicitly taken into account in internal models.

The finalisation of Basel III[40] by the Basel Committee on Banking Supervision (BCBS) in December 2017 introduces a risk-weight floor of approximately the same magnitude as the draft measure. A key objective of the BCBS revisions is to reduce excessive variability of risk-weighted assets. The introduction of the output floor should ensure that capital requirements of IRB credit institutions do not fall below a certain percentage of capital requirements of those using the standardised approach. The exact application of the output floor in the EU would depend on its implementation in the CRR.

c) Using the systemic risk buffer (Article 133 of the CRD IV)

Member States may introduce a systemic risk buffer (SyRB) to address long-term non-cyclical systemic or macroprudential risks not covered by the CRR. The SyRB can be applied to all banks or to a subset of banks. Additionally, the SyRB can be applied to domestic exposures, exposures in third countries and exposures in other Member States. In Sweden, a SyRB of 3% already applies to all exposures of the four largest banks, addressing the risk of a large, concentrated and interconnected banking system.

The draft measure aims to limit the risk of a severe cyclical downturn in the RRE market, and thus the SyRB would not be applicable. The SyRB can only be used to address non-cyclical risks. The Swedish mortgage market and the RRE sector display certain vulnerabilities of a structural nature. Nevertheless, FI adopted the measure in response to the elevated and increasing cyclical risks in the RRE market.

Furthermore, the draft measure targets Swedish mortgage loans, while the SyRB can only be applied to a broader set of exposure. The SyRB would apply to all exposure classes and not only to Swedish mortgage loans. Therefore, its application could incentivise banks to shift exposures between exposure classes, which is not a desired outcome. The combination of two

[40] Basel Committee on Banking Supervision, Basel III: Finalising post-crisis reforms, December 2017, ISBN 978-92-9259-022-2 (available online).

distinct risk sources into a single SyRB calibration could also adversely affect the transparency of the instrument.

d) Using the countercyclical capital buffer (Article 136 of the CRD IV)

The CRD IV introduced the countercyclical capital buffer (CCyB) to address some of the procyclicality in the financial system. The CCyB is a requirement applicable to domestic exposures. The rate for the CCyB is set on a quarterly basis by the designated authority. Designated authorities follow a specific methodology based on an ESRB recommendation[41]. FI decided on 14 March 2016 to set the CCyB to Swedish exposures to 2%, which is the rate that has applied since 19 March 2017.

The CCyB is not an appropriate tool to address a targeted systemic risk, as it would apply to all exposures in Sweden and not only to Swedish mortgage loans. The CCyB addresses cyclical risks and is based on the relationship between growth in total lending and GDP growth. The CCyB currently in place addresses the overall and continuing excesses in credit growth in the Swedish economy, and is not specific to the residential mortgage market. Furthermore, as described in Section 2, the draft measure addresses both cyclical and structural risks of Swedish mortgage loans. The CCyB would not appropriately target the risk identified by the Swedish authorities, as it would also penalise exposures to non-financial corporations.

e) Using Pillar 2 (Articles 101, 103, 104 and 105 of the CRD IV)

Competent authorities can apply supervisory measures to address risks that are not sufficiently covered by Pillar 1, including systemic risks. These powers can be applied under the supervisory review and evaluation process (SREP), one of the components of Pillar 2. Furthermore, the CRD IV allows the use of Pillar 2 mechanisms for macroprudential purposes (Article 103 of the CRD IV).

FI currently applies the risk weight floor of 25% to credit institutions in Sweden through Pillar 2. The only difference between the measures in place and the draft measure is that the latter would be applicable under Pillar 1.[42] When the Pillar 2 measure was introduced in 2013, FI assessed it to be the most effective and efficient tool to adequately address the systemic risk posed by Swedish mortgage loans.

FI has put forward several arguments as to why Pillar 2 will cease to be effective in addressing the systemic risk, given structural changes in the Swedish banking sector. The ESRB agrees with these arguments, as summarised below.

- **Distribution of responsibility for supervision and crisis management:** The Pillar 2 measure will no longer be applicable to Nordea Bank AB after the planned move of its head office from Sweden to Finland. Furthermore, the European Central Bank (ECB) will become the authority responsible for the supervision of Nordea Bank AB as regards capital, liquidity and risk management. In addition, the ECB will conduct the SREP including setting the Pillar 2 requirement for Nordea Bank AB. Pillar 2 requirements for its Swedish subsidiaries will be set by means of a joint decision by the college of supervisors.
- **Macroprudential nature of the measure:** FI considers that the supervision practice applied by the ECB in the framework of European banking supervision makes it highly unlikely that the ECB will apply the Swedish risk-weight floor in Pillar 2 in its current form. In its contribution to the European Commission's consultation on the review of the macroprudential framework, the ECB expressed the view that Pillar 2 should be clearly defined as a microprudential instrument used by competent authorities to address

[41] Recommendation ESRB/2014/1 on guidance for setting countercyclical buffer rates.

[42] See Section 1 for a detailed description of the Pillar 2 measure currently in place.

idiosyncratic risks relating to the individual risk profile of a given institution; the ECB also expressed the view that to achieve this objective, the macroprudential use of Pillar 2 should be deleted from the CRD IV.[43] Furthermore, following that consultation, the European Commission did in fact propose the removal of the macroprudential use of Pillar 2 from the CRD IV[44]. Nonetheless, as a general rule, one should not anticipate the ECB's decisions about the use of the instruments at its disposal.

- **Absence of a clear reciprocity framework for Pillar 2 macroprudential measures:** Currently, the CRD IV and the CRR do not define a clear reciprocity framework for macroprudential measures under Pillar 2. Nonetheless, reciprocation of Pillar 2 measures is possible and falls within the scope of Recommendation ESRB/2015/2. For example, the Danish Supervisory Authority, Finanstilsynet, reciprocates the current Pillar 2 measure for Danske Bank, which has a significant branch in Sweden. However, FI considers that the use of Article 458 of the CRR with a legally defined reciprocity framework is a more effective way to ensure reciprocation of its measure.
- **Level playing field in the Swedish market:** Unless it is reciprocated, retaining the measure as a Pillar 2 measure is likely to result in Nordea Bank AB being subject to lower capital requirements than it is currently in relation to Swedish mortgage loans. This would weaken the bank's resilience to systemic risk embedded in Swedish mortgage loans. Moreover, it would create a distortion in competition on the Swedish mortgage market.
- **Use of Article 101 of the CRD IV is not justified**: FI considers that Swedish credit institutions using the IRB approach do not breach CRR requirements when modelling Swedish mortgage loans. The models are based on long time series of historical data. The low risk-weight estimates are due to low levels of historically observed losses and not due to flaws in the modelling framework.
- **Use of Article 105 of the CRD IV is not justified**: Article 105 of the CRD IV deals with provisions introduced to tackle liquidity risk when considering the particular business model of the institution. Therefore this article is outside the scope of the draft measure.

Apart from the risk-weight floor for Swedish mortgage loans, FI also applies an additional 2% capital buffer for systemic risk on systemically important institutions in Sweden under Pillar 2 (see Section 1.2). While FI intends for the time being to retain this requirement, it is not clear whether it will continue to apply after the change in supervisory responsibilities following the relocation of Nordea Bank AB. However, in terms of relative impact, this requirement is relatively small compared to the risk-weight floor.

f) Using other measures

FI introduced an LTV cap of 85% on residential mortgage loans in 2010 and an amortisation requirement in 2016.[45] The latter requires a household borrowing more than 50% of a

---

[43] See ECB contribution to the European Commission's consultation on the review of the EU macroprudential policy framework, 2016, p. 4.

[44] See EU Banking Reform: Strong banks to support growth and restore confidence, European Commission, November 2016, and in particular the Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) No 575/2013 as regards the leverage ratio, the net stable funding ratio, requirements for own funds and eligible liabilities, counterparty credit risk, market risk, exposures to central counterparties, exposures to collective investment undertakings, large exposures, reporting and disclosure requirements and amending Regulation (EU) No 648/2012.

[45] See FI's general guidelines regarding limitations to the size of loans collateralised by homes (FFFS 2010:2), and regulations regarding amortisation of loans collateralised by residential property (FFFS 2016:16).

residential property's value to amortise each year at least 1% of the amount borrowed, and those borrowing more than 70% must amortise at least 2% each year. Since March 2018, households borrowing more than 4.5 times their annual income before tax must amortise an additional 1% of their mortgage each year.

While these measures aim at strengthening the resilience of households in the future, they do not address the risks embedded in the stock of mortgages accumulated to date. The measures apply to new loans and not to the existing stock of loans. Although they make a gradual contribution to the reduction of risks, they do not address the underestimation of risks related to the low risk-weights that currently exist. Furthermore, the ESRB noted in its warning to Sweden that such measures might not be sufficient to fully address those risks.

Section 4: Analysis of the net benefits of the measure

4.1 Effects on financial stability, financial system resilience and economic growth

The draft measure is expected to maintain the resilience of the affected banks, though further developments regarding the vulnerabilities in the RRE sector in Sweden need to be monitored closely. Assuming that the measure is fully reciprocated by Member States which have credit institutions with material exposures to the Swedish RRE market, the capital requirements for the IRB credit institutions should remain broadly the same in terms of nominal amounts. In view of the elevated and increasing vulnerabilities in the Swedish RRE sector (see Section 2), further developments need to be monitored closely and the policy stance may need to be further adjusted.

In the absence of the currently proposed measure, structural changes in the Swedish banking market could lead to applying lower risk weights on RRE exposures in Sweden by branches of foreign banks, which could increase financial stability risks. FI considers that the change in the structure of the market associated with the relocation of Nordea Bank AB from Sweden to Finland could lead to a situation in which different participants in the Swedish mortgage market face different capital requirements in relation to Swedish residential mortgage exposures. Lower capital requirements for some large market participants could, in turn, lead to increasing credit expansion and lowering credit quality in the Swedish RRE sector, exacerbating already elevated financial stability risks. Consequently, the measure would need to be reciprocated in order to ensure that Nordea Bank AB's capital requirements in relation to Swedish mortgage loans are not reduced after its relocation.

The proposed measure is likely to reduce the minimum requirement for own funds and eligible liabilities (MREL)[46] for the affected institutions, which could have negative consequences from a financial stability perspective.[47] The MREL requirement comprises a loss absorption amount and a recapitalisation amount.[48] The Swedish National Debt Office (Sweden's resolution authority) excludes the combined buffer requirement from the

[46] Article 45 of Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms (OJ L 173, 12.6.2014, p.190).

[47] See "Changed method for the application of the risk weight floor for Swedish mortgages", Consultation memorandum, Finansinspektionen, 28 Mar 2018, Finansinspektionen Ref. 18-6251, Section 3.1.

[48] See Commission Delegated Regulation (EU) 2016/1450 of 23 May 2016 supplementing Directive 2014/59/EU of the European Parliament and of the Council with regard to regulatory technical standards specifying the criteria relating to the methodology for setting the minimum requirement for own funds and eligible liabilities (OJ L 237, 3.9.2016, p. 1).

calculation of both amounts and excludes the systemic risk part of Pillar 2 only from the loss absorption amount. Consequently, transferring the risk-weight floor from Pillar 2 to Pillar 1 would increase the loss absorption amount. However, part of the new requirement would be held through the combined buffer requirement, which is excluded from both amounts. This would, in turn, reduce the overall MREL requirement for the affected institutions. In order to avoid adverse consequences to financial stability, close cooperation on this matter between the relevant authorities in Sweden would be particularly important.

Since the proposed measure does not materially change the capital requirements in nominal terms, its impact on banks' funding costs, loan margins and economic growth can be expected to be limited. The design of the measure implies keeping the current nominal capital requirements unchanged, provided that the measure is reciprocated. Consequently, the impact of the measure on banks' funding costs, loan margins and economic growth can be expected to be limited, as long as the calibration is not materially adjusted.

Overall, the ESRB has concluded that the proposed measure would not entail disproportionate adverse effects for the internal market or other national financial systems. The measure should further maintain the resilience of Swedish banks to shocks in the Swedish RRE market and thus reduce potential channels for contagion from Sweden to other Member States. As the measure is a continuation of the risk-weight floor applied since 2014, it should not introduce any disproportionate adverse effects for the internal market or other national financial systems. Members of the ESRB General Board did not raise any material concerns under the procedure laid down in Article 4 of Decision ESRB/2015/4, as far as negative externalities of the measure in terms of adverse cross-border spillover effects were concerned.

4.2 Effects on both domestic and cross-border lending

The ESRB does not expect the draft measure to materially affect domestic and cross-border lending, given that no material impact of the current Pillar 2 measure has been shown in the past.

Annual growth rates of RRE loans to households have increased from 4.6% in January 2013 to 8.7% in May 2016. The current Pillar 2 measure was introduced in 2013 at the bottom of the residential mortgage lending cycle in Sweden. Prior to that, growth rates of such loans have declined from levels above 15% in 2006. Even if the measure has contributed to the lower growth rates observed since 2013, lending growth has been robust.

Spillovers to other categories of lending to households and to non-financial corporations in Sweden appear to be limited. No significant changes in the growth patterns of consumer and other loans to households have been observed since the introduction of the Pillar 2 measure. The share of RRE loans in total loans to households has continued its slow increase, even after the introduction of the measure. Credit growth to non-financial corporations picked up in 2014 and now fluctuates at around 5% per annum. Nevertheless, credit growth generally remains subdued compared to pre-crisis levels.

Non-bank institutions have been entering the Swedish mortgage market only very recently and their market share is still negligible.[49] Direct investments in mortgages by Swedish insurers and pension funds are negligible.[50] However, FI noted that insurers and pension funds show interest in indirect investments through mortgage funds, in addition to their investments in covered bonds. While new players such as independent loan brokers and investment funds have entered the market in recent years, their market share remains low (below 1%).

[49] See the article entitled "New players on the mortgage market" in Financial Stability Report 2018:1, Sveriges Riksbank, pp. 31 – 34.

[50] See also Box 5 of the EIOPA Financial Stability Report, December 2017.

Nonetheless, Sveriges Riksbank noted in its December 2017 Financial Stability Report that these new entrants could complicate macroprudential policy. These new players fall outside the scope of existing macroprudential instruments. For example, they may be subject to lower capital requirements than Swedish banks on the basis of the risk-weight floor, or may not be subject to the amortisation requirement. Therefore, the Swedish authorities should continue monitoring developments, closely assess the effectiveness of macroprudential policy measures and, if necessary, update their macroprudential toolkit.

While lending by foreign banks in Sweden has not changed since the introduction of the measure, Swedish banks have reduced their lending somewhat. Based on available consolidated banking statistics provided by the Bank for International Settlements, the loan stocks of foreign banks in Sweden have not changed since the introduction of the measure, save for the usual business fluctuations. However, foreign exposures of Swedish banks have decreased since 2014. Although it is not possible to assess whether this decline is related to the introduction of the risk-weight floor, FI is encouraged to assess the potential cross-border impact of its measure.

4.3 Effects on intragroup behaviour of credit institutions

Given that credit institutions already meet the higher capital requirement, it is unlikely that the measure will cause a significant shift of operations within their group structures. Moreover, no significant changes in intragroup behaviour of relevant credit institutions have been observed since the introduction of the Pillar 2 measure.

The share of cross-border banking is expected to increase with the planned relocation of Nordea Bank AB, which has a 14% share in the Swedish mortgage market. As of the fourth quarter of 2017, branches of foreign banks in Sweden accounted for approximately 2.7 % of Swedish mortgage loans granted, while direct cross-border lending has been negligible. The branch of Danske Bank is the only foreign branch in Sweden using the IRB approach and that has a significant market share (2.5%). In 2017, Danske bank also established a subsidiary in Sweden to issue cover bonds and its portfolio has since grown substantially. While Nordea Bank AB's branch in Sweden originates most of the bank's mortgages, the bulk of it is transferred to its subsidiary Nordea Hypotek, which acts as a financing vehicle for covered bonds. However, this may not prevent the bank from retaining the mortgage portfolio in the branch after relocation in the event that the capital requirement for Swedish mortgage loans were to be considered too high.

FI indicated in its notification to the ESRB that it plans to ask the ESRB to recommend that other Member States with material exposures reciprocate the measure. Denmark's Finanstilsynet has already reciprocated the existing measure. Furthermore, FI has also discussed the potential reciprocation of its measure with the relevant authorities in Finland, Denmark and with the ECB, and plans to request these authorities directly to reciprocate the Swedish measure in parallel with a request to the ESRB to recommend reciprocation to Member States that have credit institutions with material exposures to the Swedish RRE market.

The development of cross-border mortgage lending and lending through branches should therefore be monitored. Further investigation of developments at the level of individual institutions (in particular by the supervisory colleges of the banking groups concerned) should occur if there is a significant pickup in such activity.

Conclusions

The main purpose of the draft measure is to address the risk that an already existing measure addressing vulnerabilities in the RRE sector may no longer apply to a substantial share of the Swedish mortgage loan market. This potential gap results from the shift in supervisory responsibilities following a restructuring of the Nordea Bank group that may hamper the effectiveness of national macroprudential policy in addressing these vulnerabilities.

The fact that the risk is currently addressed by Pillar 2 should not prevent the application of Article 458 of the CRR, given the expected reduced effectiveness of Pillar 2 in addressing the risk. The appropriate reference basis for assessing the impact of the draft measure is therefore the situation in which the existing measure (or a comparable alternative) is no longer in place. FI intends to repeal the Pillar 2 measure currently in place, at the same time as enacting the new measure. For the purposes of this opinion, the ESRB therefore assumes that the various authorities will take the necessary steps to ensure that no regulatory gaps and overlaps occur.

In addition, the assessment is made against the backdrop of signs that vulnerabilities in the Swedish RRE market continue to increase. In its warning of 22 September 2016[51], the ESRB identified the main medium-term vulnerabilities in the RRE sector in Sweden to be increasing residential property prices, resulting in an overvaluation of the market, as well as high and increasing indebtedness, especially among some groups of households. Overall, these concerns still remain valid and there is evidence of further increasing vulnerabilities, for example related to increasing household indebtedness.

The ESRB is further of the view that the alternative macroprudential instruments listed in Article 458 of the CRR, which must be considered before any stricter national measure can be taken, would not be adequate to address the risk at hand. Measures such as those listed in Articles 124 and 164 of the CRR, as well as the systemic risk buffer or the countercyclical capital buffer, are considered to be inadequate as they do not provide the intended incentives, are too broad-based, or do not address the relevant type of risk, exposure or credit institution. The ESRB also found that the measure does not entail disproportionate adverse effects on the internal market or other national financial systems.

Therefore, the ESRB is of the view that the stricter measure is justified, proportionate, effective and efficient for the purpose mentioned above. However, this assessment has been made for the specific purposes of the procedure under Article 458 of the CRR and does not prejudge the outcome of the more extensive and detailed analysis that the ESRB intends to undertake in the near future to assess whether the systemic risk identified in its warning of 2016 has been adequately addressed by the Swedish authorities.

In addition, the ESRB would like to highlight the following points.

First, the effectiveness of the measure crucially depends on its reciprocation by the Finnish authorities. The ESRB understands that the Swedish authorities are confident that such reciprocation will occur, based on discussions with FIN-FSA staff and the existence of a memorandum of understanding on prudential supervision of significant branches that applies to the Nordic-Baltic macroprudential network. The ESRB notes that FI will request the ESRB to recommend reciprocation of the measure by other Member States under Recommendation ESRB/2015/2[52]. This request will only be considered by the ESRB following completion of the

[51] See the Warning of the European Systemic Risk Board of 22 September 2016 on medium-term vulnerabilities in the residential real estate sector of Sweden.

[52] 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.

notification and approval procedure and if and when the measure has been effectively adopted by the Swedish authorities, although the ESRB would be, in principle, open to it. The ESRB further notes that, in parallel, FI intends to request reciprocity from the Finnish authorities on a bilateral basis. This should be welcomed as it accelerates effective reciprocation.

The effectiveness of the measure will also depend on the extent to which it will be reciprocated by other Member States with credit institutions active in the Swedish residential mortgage market. In particular, branches of Nordic credit institutions originate a significant share of the Swedish mortgage market. These may therefore have a competitive advantage unless they become subject to the same (or an equivalent) measure in relation to their Swedish mortgage activities. The development of mortgage lending through direct cross-border lending or branches should also be closely monitored over time, as should changes in the corporate structures of the relevant Nordic banking groups.

Second, clear communication of the impact of the measure on the capital ratios of the affected credit institutions is very important. While application of the draft measure will have a limited impact on total capital requirements in nominal terms, it will reduce the total capital requirement expressed as a percentage of the risk-weighted assets of IRB credit institutions. The impact on the capital ratio can be very substantial depending on the features of the individual institution, ranging from 1.9 percentage points to 28.7 percentage points.[53] Mathematically, this is a direct consequence of the higher risk-weighted assets of IRB credit institutions and an unchanged total capital held by them. FI has publicly described the effects on individual institutions in its consultation memorandum and communicated it to rating agencies and the affected institutions.

Third, it would be helpful, for reasons of transparency and accountability, if FI would be more specific in clarifying the criteria it would apply or indicators it would use in making such decisions. The ESRB understands that it may not be possible or desirable to define strict criteria for the extension or deactivation of the measure. Nevertheless, measures taken under Article 458 of the CRR are conceived to be of temporary nature, given their initial application of two years and the possibility of annual extension.

Fourth, the use of the SyRB should be reconsidered, if changes to the EU legal framework were to allow its more targeted application to subsets of exposures. The ESRB adopted in December 2017 an opinion on how the framework for structural macroprudential buffers could be improved.[54] In particular, the ESRB proposed to allow the SyRB directly targeting specific subsets of exposures, i.e. it should be applicable only to the risk-weighted assets of a particular exposure class. In the event that such changes are introduced in the legal framework, FI should reconsider the use of the SyRB to target underlying systemic risk of a more structural nature.

---

[53] See “Changed method for the application of the risk weight floor for Swedish mortgages”, Consultation memorandum, Finansinspektionen, 28 Mar 2018, Finansinspektionen Ref. 18-6251, Section 3.1.

[54] Opinion to the European Commission on structural macroprudential buffers, ESRB, December 2017.